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**DEPT. OF ECOLOGY
TCP-NWRO**

Anchor Environmental, I.L.C.
1423 3rd Avenue, Suite 300
Seattle, Washington 98101
206 287 9130 phone
206 287 9131 fax

January 4, 2008
000111-01 BG01 T04

Mark Edens
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008

Re: Duwamish Shipyard – Stormwater System Cleanout Completion

Dear Mark:

On behalf of Duwamish Shipyard, Inc. (DSI), this letter is to notify the Washington Department of Ecology (Ecology) that the cleanout of the on-site stormwater system at the DSI property located at 5658 West Marginal Way SW in Seattle has been completed. This work was performed in response to Ecology's January 5, 2007 letter, which required that solids be removed from the stormwater system.

DSI formerly operated under National Pollutant Discharge Elimination System (NPDES) Permit No. WA-003093-7 during active shipyard operations. However, DSI has ceased all active ship repair activities at the property, and there is no intention for DSI or other parties to resume shipyard activities in the future. Portions of the DSI property are currently being used by Alaska Marine Terminals (AML) for equipment storage and truck access. AML will perform ongoing stormwater management on the DSI property.

Solids from the stormwater system were previously analyzed as part of the 2006 upland investigation. Ecology required additional testing of catch basin solids for tributyl-tin (TBT) prior to the stormwater system cleanout. A solids sample was collected at the outfall catch basin (as collected during the 2006 upland investigation) and TBT was detected at a

concentration of 0.74 milligrams per kilogram (mg/kg). The analytical laboratory report is included in Attachment A and the data validation report is included in Attachment C.

Consistent with Ecology's letter, DSI completed the cleanout and documentation of the on-site stormwater catch basins and lines during the months of July and August 2007. The work was performed by Cowlitz Clean Sweep (CCS) under a site-specific health and safety plan. The stormwater system consists of a mainline running west/east to the Duwamish River outfall with a series of lateral connections. The pipe lines range in diameter from 12 to 18 inches for the mainline piping and 3 to 6 inches for the lateral piping. The piping system is primarily either concrete or concrete-reinforced wood construction. The stormwater system is presented on Figure 1.

CCS performed the stormwater system cleanout by using a 120-barrel vacuum truck with a jet rodder and suction hose to collect generated water. Prior to the stormwater system cleanout, measures were performed to eliminate potential discharges to the Duwamish River. An inflatable plug was placed in the catch basin nearest the shoreline outfall and the outfall valve was closed. The outfall discharge pipe was routinely monitored to confirm that generated water from the cleanout was not discharging to the Duwamish River. The mainline stormwater system piping was accessible and cleaned without incident. All but two lateral stormwater system lines were accessible. The lines from catch basin DSI-15 to the mainline and DSI-18 to DSI-19 were not accessible due to piping construction or apparent blockage.

The catch basin solids and cleanout residuals (generated water) were managed by off-site treatment/disposal. Generated water was collected in the vacuum truck barrel and transferred to a 6,500-gallon Baker tank. Approximately 4,100 gallons of generated water were collected and transported for disposal to Burlington Environmental's Kent facility. The generated water was sampled and analyzed for total metals and petroleum. Analytical results for the generated water are included in Attachment B and the data validation report is included in Attachment C. Due to significant turbidity of the generated water, the analytical results indicated elevated metals detections and required the generated water to be managed as hazardous waste. The manifest for the generated water is included in Attachment D.

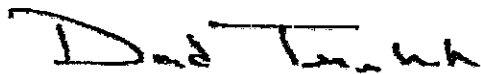
Solids collected from the cleanout were transported and disposed at Lafarge at its West Marginal Way facility in Seattle. Lafarge required additional testing of the solids for Toxicity Characteristic Leaching Procedures (TCLP) lead prior to disposal. The testing results indicated

a non-detect concentration (less than 0.1 milligrams per liter [mg/L]). The ICLP lead analytical results are included in Attachment A. In addition to the stormwater system solids, additional solids were generated from cleaning paved areas of the property. Pro Sweep was contracted to sweep accessible paved areas of the property to limit the potential for dirt or other materials to enter the cleaned stormwater system. The manifest for solids disposal is included in Attachment D.

Upon completion of the stormwater system cleanout, CCS performed video documentation of the piping conditions at all accessible locations. Photographs from the video documentation are included in Attachment E. The video documentation indicated that the stormwater system was operational and solids within the piping had been removed.

If you have any questions, please do not hesitate to contact me at (206) 903-3312. I may also be reached by email at dtempleton@anchorenv.com.

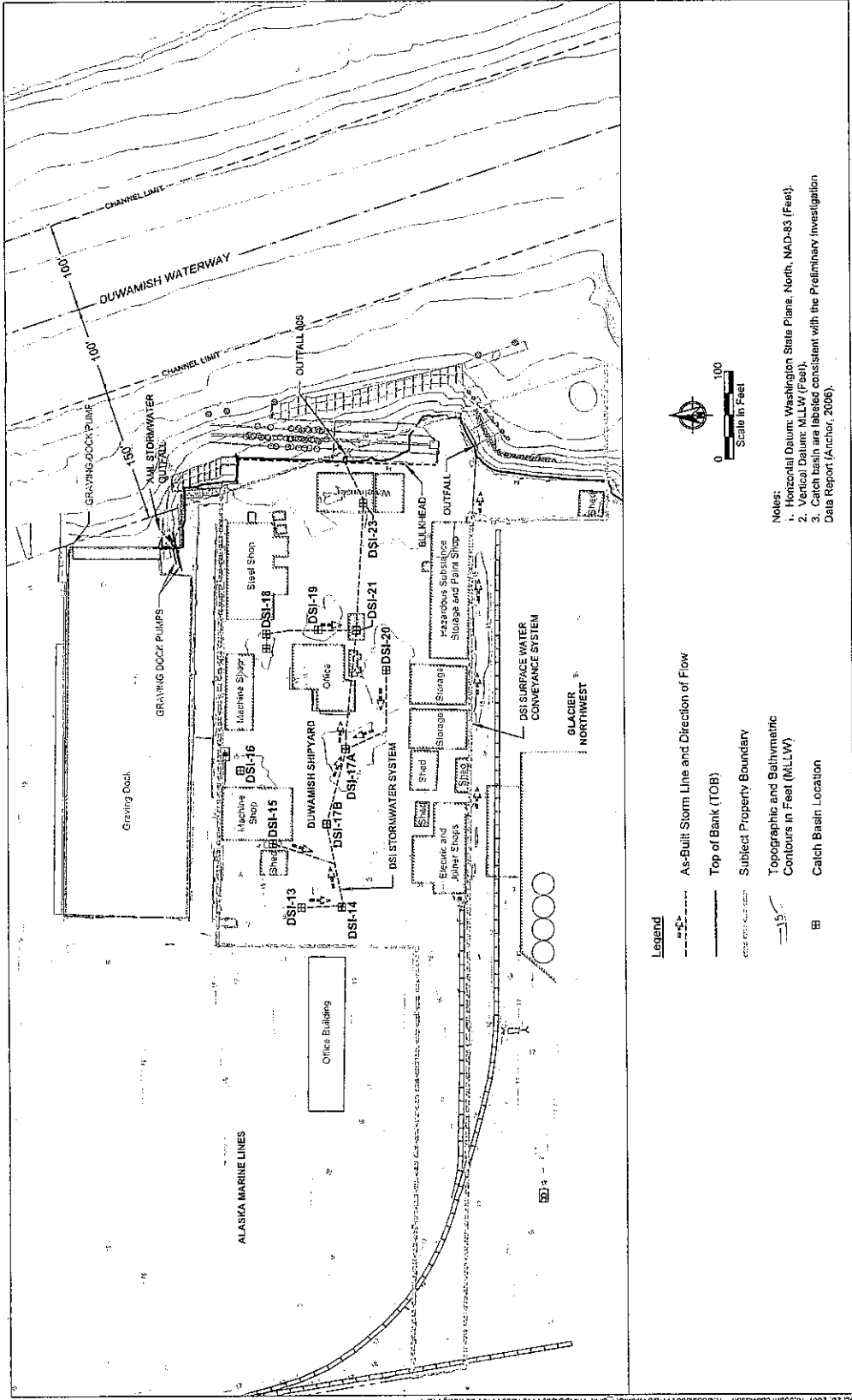
Sincerely,



David Templeton
Anchor Environmental, L.L.C.

Cc: Kyle McCleary, Duwamish Shipyard, Inc.
Kim Maree Johannessen, Johannessen & Associates, P.S.
Ben Howard, Anchor
Mark Larsen, Anchor

Attachments



- Legend**
- As-Built Storm Line and Direction of Flow
 - Top of Bank (TOB)
 - Subject Property Boundary
 - Topographic and Bathymetric Contours in Feet (MLW)
 - Catch Basin Location



- Notes:**
1. Horizontal Datum: Washington State Plane, North, NAD-83 (Feet).
 2. Vertical Datum: MLLW (Feet).
 3. Catch basin are labels consistent with the Preliminary Investigation Data Report (Anchor, 2006).

Figure 1
Existing Stormwater System
Duwamish Shipyard, Inc.
Seattle, Washington

ATTACHMENT A

ANALYTICAL LABORATORY REPORT FOR SOLIDS SAMPLES

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
 Page 1 of 1

Sample ID: DSI-CB-070307
 SAMPLE

Lab Sample ID: LF83A
 LIMS ID: 07-13528
 Matrix: Soil
 Data Release Authorized: *AB*
 Reported: 07/10/07

QC Report No: LF83-Anchor Enviromental, LLC
 Project: Duwamish Shipyard
 Event: 010001-01
 Date Sampled: 07/03/07
 Date Received: 07/03/07

Date Extracted: 07/07/07
 Date Analyzed: 07/10/07 12:24
 Instrument/Analyst: NT1/VTS
 Silica Gel Cleanup: No

Sample Amount: 5.16 g-dry-wt
 Final Extract Volume: 0.50 mL
 Dilution Factor: 1.00
 Alumina Cleanup: Yes
 Moisture: 42.8%

CAS Number	Analyte	RL	Result	Q
TBT_ION	Tributyl Tin Ion	3.7	750	E

Reported in $\mu\text{g}/\text{kg}$ (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	62.3%
Tripropyl Tin Chloride	51.1%

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
 Page 1 of 1

Sample ID: DSI-CB-070307
 DILUTION

Lab Sample ID: LF83A
 LIMS ID: 07-13528
 Matrix: Soil
 Data Release Authorized: *MB*
 Reported: 07/10/07

QC Report No: LF83-Anchor Enviromental, LLC
 Project: Duwamish Shipyard
 Event: 010001-01
 Date Sampled: 07/03/07
 Date Received: 07/03/07

Date Extracted: 07/07/07
 Date Analyzed: 07/10/07 12:52
 Instrument/Analyst: NT1/VTS
 Silica Gel Cleanup: No

Sample Amount: 5.16 g-dry-wt
 Final Extract Volume: 0.50 mL
 Dilution Factor: 5.00
 Alumina Cleanup: Yes
 Moisture: 42.8%

CAS Number	Analyte	RL	Result	Q
TBT_ION	Tributyl Tin Ion	19	740	

Reported in $\mu\text{g}/\text{kg}$ (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	D
Triphenyl Tin Chloride	D



ORGANICS ANALYSIS DATA SHEET
 Tributyl Tins by Krone 1988 SIM GC/MS
 Page 1 of 1

Sample ID: MB-070707
 METHOD BLANK

Lab Sample ID: MB-070707
 LIMS ID: 07-13528
 Matrix: Soil
 Data Release Authorized: *AS*
 Reported: 07/10/07

QC Report No: LF83-Anchor Enviromental, LLC
 Project: Duwamish Shipyard
 Event: 010001-01
 Date Sampled: NA
 Date Received: NA

Date Extracted: 07/07/07
 Date Analyzed: 07/10/07 11:30
 Instrument/Analyst: NT1/VTS
 Silica Gel Cleanup: No

Sample Amount: 5.00 g-dry-wt
 Final Extract Volume: 0.50 mL
 Dilution Factor: 1.00
 Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
TBT_ION	Tributyl Tin Ion	3.9	< 3.9	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	52.1%
Tripropyl Tin Chloride	68.7%

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
 Page 1 of 1

Sample ID: LCS-070707
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-070707
 LIMS ID: 07-13528
 Matrix: Soil
 Data Release Authorized: *RP*
 Reported: 07/10/07

QC Report No: LF83-Anchor Enviromental, LLC
 Project: Duwamish Shipyard
 010001-01
 Date Sampled: NA
 Date Received: NA

Date Extracted LCS: 07/07/07
 Date Analyzed LCS: 07/10/07 11:57
 Instrument/Analyst LCS: NT1/VTS
 Silica Gel Cleanup: No

Sample Amount LCS: 5.00 g-dry-wt
 Final Extract Volume LCS: 0.50 mL
 Dilution Factor LCS: 1.00
 Alumina Cleanup: Yes

Analyte	LCS	Spike Added	Recovery
Tributyl Tin Ion	41.3	44.6	92.6%

Reported in $\mu\text{g}/\text{kg}$ (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	59.0%
Tripenyl Tin Chloride	86.0%

TBT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: LF83-Anchor Enviromental, LLC
Project: Duwamish Shipyard
Event: 010001-01

<u>Client ID</u>	<u>TPRT</u>	<u>TPNT</u>	<u>TOT OUT</u>
MB-070707	52.1%	68.7%	0
LCS-070707	59.0%	86.0%	0
DSI-CB-070307	62.3%	51.1%	0
DSI-CB-070307 DL	D	D	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(TPRT) = Tripropyl Tin Chloride	(23-100)	(20-92)
(TPNT) = Tripentyl Tin Chloride	(32-114)	(20-133)

Prep Method: SW3550B
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 07-13528 to 07-13528

INORGANICS ANALYSIS DATA SHEET

TCLP METALS


Page 1 of 1

Sample ID: DSI-CB-070307
SAMPLE

Lab Sample ID: LG56A

LIMS ID: 07-14026

Matrix: Soil

Data Release Authorized: 

Reported: 07/13/07

QC Report No: LG56-Anchor Enviromental, LLC

Project: Duwamish Shipyard

010001-01

Date Sampled: 07/03/07

Date Received: 07/03/07

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	07/11/07	6010B	07/12/07	7439-92-1	Lead	0.1	0.1	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TCLP METALS


Page 1 of 1

Sample ID: DSI-CB-070307
DUPLICATE

Lab Sample ID: LG56A

LIMS ID: 07-14026

Matrix: Soil

Data Release Authorized: 

Reported: 07/13/07

QC Report No: LG56-Anchor Enviromental, LLC

Project: Duwamish Shipyard

010001-01

Date Sampled: 07/03/07

Date Received: 07/03/07

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Lead	6010B	0.1 U	0.1 U	0.0%	+/- 0.1	L

Reported in mg/L

*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit



INORGANICS ANALYSIS DATA SHEET
TCLP METALS
Page 1 of 1

Sample ID: DSI-CB-070307
MATRIX SPIKE

Lab Sample ID: LG56A
LIMS ID: 07-14026
Matrix: Soil
Data Release Authorized: *[Signature]*
Reported: 07/13/07

QC Report No: LG56-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: 07/03/07
Date Received: 07/03/07

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Lead	6010B	0.1 U	9.6	10.0	96.0%	

Reported in mg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



INORGANICS ANALYSIS DATA SHEET

TCLP METALS

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: LG56MB

LIMS ID: 07-14026

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 07/13/07

QC Report No: LG56-Anchor Enviromental, LLC

Project: Duwamish Shipyard

010001-01

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	07/11/07	6010B	07/12/07	7439-92-1	Lead	0.1	0.1	U

U-Analyte undetected at given RL
RL-Reporting Limit

ATTACHMENT B

ANALYTICAL LABORATORY REPORT FOR WATER SAMPLES

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Page 1 of 1
Matrix: Water

QC Report No: LH53-Anchor Environmental, LLC
Project: Duwamish Shipyards
010001-01
Date Received: 07/17/07

Data Release Authorized: *AP*
Reported: 07/19/07

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-071707	Method Blank	07/17/07	07/18/07	1.00	Diesel	0.25	< 0.25 U
07-14607	HC ID: ---		FID3A	1.0	Motor Oil o-Terphenyl	0.50	< 0.50 U 100%
LH53A	DSI-WP071707	07/17/07	07/18/07	1.00	Diesel	0.25	0.74
07-14607	HC ID: DRO/RRO		FID3A	1.0	Motor Oil o-Terphenyl	0.50	1.8 98.2%

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

ORGANICS ANALYSIS DATA SHEET
 NWTPHD by GC/FID
 Page 1 of 1

Sample ID: LCS-071707
 LAB CONTROL

Lab Sample ID: LCS-071707
 LIMS ID: 07-14607
 Matrix: Water
 Data Release Authorized:
 Reported: 07/19/07

QC Report No: LH53-Anchor Environmental, LLC
 Project: Duwamish Shipyards
 010001-01
 Date Sampled: NA
 Date Received: NA

Date Extracted: 07/17/07
 Date Analyzed: 07/18/07 18:14
 Instrument/Analyst: FID3A/JGR

Sample Amount: 500 mL
 Final Extract Volume: 1.0 mL
 Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	2.84	3.00	94.7%

TPHD Surrogate Recovery

o-Terphenyl	106%
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Results reported in mg/L

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 07/17/07

ARI Job: LH53
Project: Duwamish Shipyards
010001-01

<u>ARI ID</u>	<u>Client ID</u>	<u>Samp Amt</u>	<u>Final Vol</u>	<u>Prep Date</u>
07-14607-071707MB1	Method Blank	500 mL	1.00 mL	07/17/07
07-14607-071707LCS1	Lab Control	500 mL	1.00 mL	07/17/07
07-14607-LH53A	DSI-WP071707	500 mL	1.00 mL	07/17/07

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: LH53-Anchor Environmental, LLC
Project: Duwamish Shipyards
010001-01

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-071707	100%	0
LCS-071707	106%	0
DSI-WP071707	98.2%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(60-118)

(54-116)

Prep Method: SW3510C
Log Number Range: 07-14607 to 07-14607

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: LH53MB

LIMS ID: 07-14607

Matrix: Water

Data Release Authorized: 

Reported: 07/20/07

QC Report No: LH53-Anchor Environmental, LLC

Project: Duwamish Shipyards

010001-01

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	07/18/07	200.8	07/19/07	7440-36-0	Antimony	0.2	0.2	U
200.8	07/18/07	200.8	07/19/07	7440-38-2	Arsenic	0.2	0.2	U
200.8	07/18/07	200.8	07/19/07	7440-41-7	Beryllium	0.2	0.2	U
200.8	07/18/07	200.8	07/19/07	7440-43-9	Cadmium	0.2	0.2	U
200.8	07/18/07	200.8	07/19/07	7440-47-3	Chromium	0.5	0.5	U
200.8	07/18/07	200.8	07/19/07	7440-50-8	Copper	0.5	1.3	
200.8	07/18/07	200.8	07/19/07	7439-92-1	Lead	1	1	U
7470	07/18/07	7470A	07/19/07	7439-97-6	Mercury	0.1	0.1	U
200.8	07/18/07	200.8	07/19/07	7440-02-0	Nickel	0.5	0.5	U
200.8	07/18/07	200.8	07/19/07	7782-49-2	Selenium	0.5	0.5	U
200.8	07/18/07	200.8	07/19/07	7440-22-4	Silver	0.2	0.2	U
200.8	07/18/07	200.8	07/19/07	7440-28-0	Thallium	0.2	0.2	U
200.8	07/18/07	200.8	07/19/07	7440-66-6	Zinc	4	4	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: DSI-WP071707
SAMPLE

Lab Sample ID: LH53A

LIMS ID: 07-14607

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 07/20/07

QC Report No: LH53-Anchor Environmental, LLC

Project: Duwamish Shipyards

010001-01

Date Sampled: 07/17/07

Date Received: 07/17/07

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	07/18/07	200.8	07/19/07	7440-36-0	Antimony	5	118	
200.8	07/18/07	200.8	07/19/07	7440-38-2	Arsenic	100	10,400	
200.8	07/18/07	200.8	07/19/07	7440-41-7	Beryllium	1	5	
200.8	07/18/07	200.8	07/19/07	7440-43-9	Cadmium	5	50	
200.8	07/18/07	200.8	07/19/07	7440-47-3	Chromium	10	660	
200.8	07/18/07	200.8	07/19/07	7440-50-8	Copper	250	104,000	
200.8	07/18/07	200.8	07/19/07	7439-92-1	Lead	500	6,680	
7470	07/18/07	7470A	07/19/07	7439-97-6	Mercury	0.1	6.0	
200.8	07/18/07	200.8	07/19/07	7440-02-0	Nickel	10	1,840	
200.8	07/18/07	200.8	07/19/07	7782-49-2	Selenium	10	10	U
200.8	07/18/07	200.8	07/19/07	7440-22-4	Silver	5	27	
200.8	07/18/07	200.8	07/19/07	7440-28-0	Thallium	1	2	
200.8	07/18/07	200.8	07/19/07	7440-66-6	Zinc	2,000	39,400	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: LH53LCS

LIMS ID: 07-14607

Matrix: Water

Data Release Authorized *[Signature]*

Reported: 07/20/07

QC Report No: LH53-Anchor Environmental, LLC

Project: Duwamish Shipyards

010001-01

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	23.3	25.0	93.2%	
Arsenic	200.8	24.6	25.0	98.4%	
Beryllium	200.8	22.9	25.0	91.6%	
Cadmium	200.8	24.4	25.0	97.6%	
Chromium	200.8	24.5	25.0	98.0%	
Copper	200.8	25.4	25.0	102%	
Lead	200.8	25.1	25.0	100%	
Mercury	7470A	1.81	2.00	90.5%	
Nickel	200.8	24.7	25.0	98.8%	
Selenium	200.8	76.3	80.0	95.4%	
Silver	200.8	24.5	25.0	98.0%	
Thallium	200.8	25.0	25.0	100%	
Zinc	200.8	77.0	80.0	96.2%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%

ATTACHMENT C

DATA VALIDATION REPORT



Anchor Environmental, L.L.C.
1423 3rd Avenue, Suite 300
Seattle, Washington 98101
Phone 206 287 9130
Fax 206 287 9131

Data Validation Review Report

Project: Duwamish Shipyard Stormwater System Cleanout

Project Number: 000111-01

Date: August 6, 2007

This report summarizes the review of analytical results for one sediment sample and one water sample collected on July 3rd and 17th of 2007 respectively. Samples were collected by Anchor Environmental and submitted to Analytical Resources, Inc. (ARI) in Tukwila, Washington. Samples were analyzed for the following:

Metals by United States Environmental Protection Agency (USEPA) methods 200.8, 6010B and 7470A

ICLP Metals by USEPA method 6010B

Total petroleum hydrocarbon gasoline range by NWIPH-G

Total petroleum hydrocarbon diesel range and motor oil by NWIPH-DX

Tributyltin (TBT) by Krone, 1989

ARI sample data group numbers LF83, LG56, and LH53 were reviewed in this report. The samples reviewed in this report are presented in Table 1.

Table 1
Samples Reviewed

Sample ID	Lab ID	Matrix	Analysis Requested
DSI-CB-070307	LF83A	Sediment	TBT
DSI-CB-070307	LG56A	Sediment	TCLP Metals(Pb)
DSI-WP071707	LH53A	Water	NWTPH-G, NWTPH-DX, Metals
DSI-Tripblank071707	LH53B	Water	NWTPH-G

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures and data quality objective section of the Sampling and Analysis Plan (SAP). Laboratory results were reviewed following USEPA guidelines using *USEPA Contract Laboratory Program National Functional Guidelines for Inorganics Data Review (USEPA, 2004)* and *USEPA Contract Laboratory National Functional Guidelines for Organics Data Review (USEPA, 1999)* as guidelines, and applying laboratory and method QC criteria as stated in SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998. Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Laboratory Data Package and Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody was signed by ARI at the time of sample receipt; the samples were received in good condition. All samples were received at ambient temperature because they were delivered immediately to the lab after collection. Since the samples were delivered and refrigerated upon receipt within 12 hours of collection, samples were deemed valid.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyses were conducted within holding times.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. The water metals blank LH53MB contained copper above the reporting limit (RL). Since the sample concentration was >5x the contamination level no data was qualified.

Field Quality Control

Field Duplicates

There were no field duplicates analyzed in this data set.

Surrogate Recoveries

Surrogate recoveries for organic analyses were performed at the required frequencies.

Surrogate recoveries were within the laboratory control limits for all surrogates.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Due to insufficient sample volume MS/MSD analyses were not analyzed. An MS was analyzed on sample DSI-CB-070307 (lead analyses) and yielded spike percent recoveries within laboratory control limits.

Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

An LCS and LCSD were analyzed at the required frequencies. All LCS and LCSD analyses were within laboratory control limits.

Laboratory Duplicates

There were no laboratory duplicates performed with this data set.

Method Reporting Limits

All results were reported using the laboratory's reporting limits and were reported as undiluted, or when diluted, the reporting limit accurately reflects the dilution factor.

Reporting limits were deemed acceptable as reported.

Overall Assessment

No data were rejected during this review. The data are judged to be acceptable as reported.

Precision, Accuracy, and Completeness

Precision: All precision goals were met.

Accuracy: All accuracy goals were met.

Completeness: Completeness was 100 percent.

REFERENCES

- USEPA. 1983. Methods for Chemical Analysis of Water and Wastes. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. EPA-600/4-79-020.
- USEPA. 1986. Test methods for Evaluating Solid Waste: Physical/Chemical Methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.
- USEPA. 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540/R-99/008. October.
- USEPA. 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540-R-04-004. October 2004.

ATTACHMENT D

MANIFESTS FOR SOLIDS DISPOSAL



INDUSTRIAL SERVICES, INC.

P.O. Box 1514
Mercer Island, WA 98040
(206) 232-8102 • Fax: (206) 232-4047

DAY: <u>Thursday</u>	START: <u>7:50</u>
DATE: <u>7-19</u>	LUNCH:
TRUCK NO: <u>7</u>	STOP: <u>9:50</u>
DRIVER: <u>PP</u>	DRIVER TOTAL: <u>2 HRS</u>

CUSTOMER: Anchor Environmental PHONE: _____

ADDRESS: _____

DOWNTIME:	REASON:	FROM	TO	SIZE LOAD	NO. LOADS	HOURS
		<u>Daymark - Sp</u>	<u>14 Fange / DEP</u>			
			<u>1) 19.00 TWS</u>			
			<u>2) 16.05 TWS</u>			
			<u>3) 15.75 TWS</u>			
			<u>4) 16.23 TWS</u>			

REMARKS: _____

RECEIVED BY: X Moja of Anchor DRIVER SIGNATURE: X R. R. R
 Original - Office; Canary - Truck Copy; Pink - Customer
ON behalf of Puwanish Shipyard Inc.

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number WAD000244997	2. Page 1 of 1	3. Emergency Response Phone 1 800 423 6316	4. Manifest Tracking Number 000634713 JJK
---	---	--------------------------	--	---

5. Generator's Name and Mailing Address 7618 W Marginal Way SW Seattle, WA 98106	Generator's Site Address (if different than mailing address) Durwanish Ship Yard Anchor Environmental 133 Grand Avenue, Suite A Bellingham, Washington 98225
Generator's Phone: 360 937 1000	(360) 733-4311

6. Transporter 1 Company Name Circular Clean Sweep	U.S. EPA ID Number WAH000014944	(360) 423-6316
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7. Transporter 2 Company Name	U.S. EPA ID Number
-------------------------------	--------------------

8. Designated Facility Name and Site Address Durlington Environmental Inc. 20245 77th Ave. Noma Kent, WA 98032	U.S. EPA ID Number WAD001281767
--	---

GENERATOR

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type			D00	D002	
1	HAZARDOUS WASTE, LIQUID, NO 8 (Arsenic, Lead), 9, HAZARDOUS, POH1		TT		G			
2								
3								
4								

14. Special Handling Instructions and Additional Information

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeor's Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

TRANSPORTER INTL

16. International Shipments Import to U.S. Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name <i>Dean L Sundt</i>	Signature <i>Dean L Sundt</i>	Month 8	Day 8	Year 07
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection

Manifest Reference Number: _____

18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____

Facility's Phone: _____

18c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1	2	3	4
---	---	---	---

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____



Seattle Plant
5400 West Marginal Way SW
Seattle, WA 98106-1517
(206) 937-8025 Ext. 340



Materials received for Seattle Co-processing

Customer: Anchor Environmental, LLC
1423 3rd Avenue
Suite 300
Seattle, WA 98101
(206) 334-6794

Ticket: 020357

Generated By: Duwamish Shipyard, Inc.
5658 West Marginal Way SW
Seattle, WA 98106

Driver Arrived With Proper PPE: Yes No

Order No: 3220-1

Product Category: Soils & Solids

Transporter:

Manifest / Bol:

Truck No: 7

Product: Petroleum Contaminated Soil

Date Rec'd: 07/19/2007

Trailer Gross: 53,900 Lbs.

Time Rec'd: 08:10:22

Tare: 22,400 Lbs.

Net Weight: 31,500.00 Lbs.

15.75 Short Tons

Lafarge Signature: _____

Driver Signature: _____

[Handwritten Signature]

[Handwritten Signature]

*Duamish Shipyard
AML*



Seattle Plant
 5400 West Marginal Way SW
 Seattle, WA 98106-1517
 (206) 937-8025 Ext. 340



Materials received for Seattle Co-processing

Customer: Anchor Environmental, LLC
 1423 3rd Avenue
 Suite 300
 Seattle, WA 98101
 (206) 334-6794

Ticket: 020359

Generated By: Duwamish Shipyard, Inc.
 5658 West Marginal Way SW
 Seattle, WA 98106

Driver Arrived With Proper PPE: Yes No

Order No: 3220-2

Product Category: Soils & Solids

Transporter:

Manifest / Bol:

Truck No: 7

Product: Petroleum Contaminated Soil

Date Rec'd: 07/19/2007

Trailer Gross: 55,700 Lbs.

Time Rec'd: 08:33:52

Tare: 22,400 Lbs.

Net Weight: 33,300.00 Lbs.

16.65 Short Tons

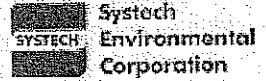
Duamish sly

Lafarge Signature: _____

Driver Signature: _____



Seattle Plant
 5400 West Marginal Way SW
 Seattle, WA 98106-1517
 (206) 937-8025 Ext. 340



Materials received for Seattle Co-processing

Customer: Anchor Environmental, LLC
 1423 3rd Avenue
 Suite 300
 Seattle, WA 98101
 (206) 334-6794

Ticket: 020362

Generated By: Duwamish Shipyard, Inc.
 5658 West Marginal Way SW
 Seattle, WA 98106

Driver Arrived With Proper PPE: Yes No

Order No: 3220-3

Product Category: Soils & Solids

Transporter:

Manifest / Bol:

Truck No: 7

Product: Petroleum Contaminated Soil

Date Rec'd: 07/19/2007

Trailer Gross: 60,400 Lbs.

Time Rec'd: 08:54:25

Tare: 22,400 Lbs.

Net Weight: 38,000.00 Lbs.

19.00 Short Tons

Walt

Duwamish S/Y

Lafarge Signature: _____

Driver Signature: _____

R.P.



Seattle Plant
5400 West Marginal Way SW
Seattle, WA 98106-1517
(206) 937-8025 Ext. 340

System
Environmental
Corporation

Materials received for Seattle Co-processing

Customer: Anchor Environmental, LLC
1423 3rd Avenue
Suite 300
Seattle, WA 98101
(206) 334-6794

Ticket: 020367

Generated By: Duwamish Shipyard, Inc.
5658 West Marginal Way SW
Seattle, WA 98106

Driver Arrived With Proper PPE: Yes No

Order No: 3220-4

Product Category: Soils & Solids

Transporter:

Manifest / Bol:

Truck No: 07

Product: Petroleum Contaminated Soil

Date Rec'd: 07/19/2007

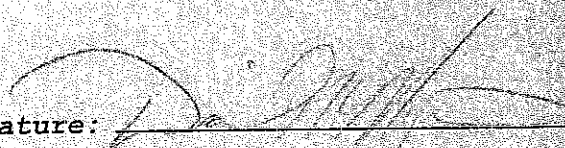
Trailer Gross: 54,860 Lbs.

Time Rec'd: 09:47:35

Tare: 22,400 Lbs.

Net Weight: 32,460.00 Lbs.

16.23 Short Tons

Lafarge Signature: 

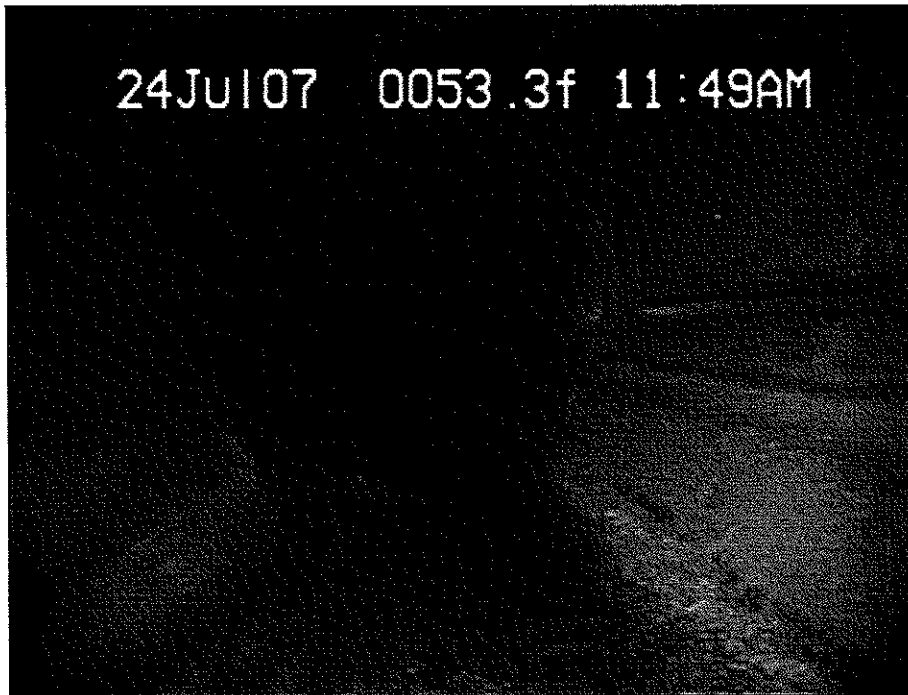
Driver Signature: 

ATTACHMENT E

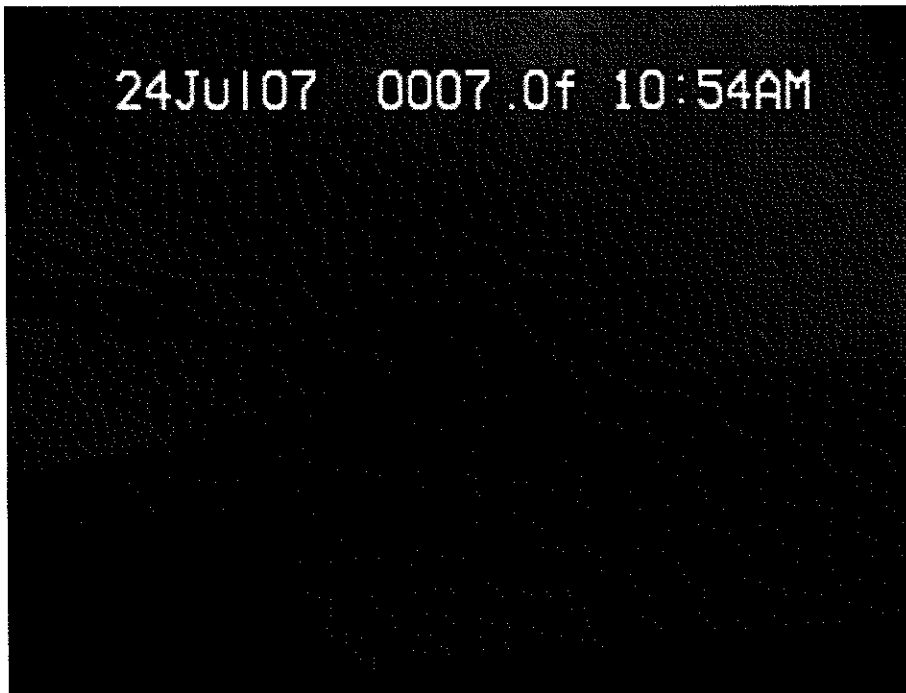
PHOTO DOCUMENTATION

Attachment E: Stormwater System Cleanout Photograph Documentation

Photograph E-01: Main-line section from DSI-17A to DSI-21. This section of the mainline is approximately 12-inch diameter concrete pipe.



Photograph E-02: Main-line section from DSI-17A to DSI-17B. This section of the mainline is approximately 12-inch diameter wood pipe.

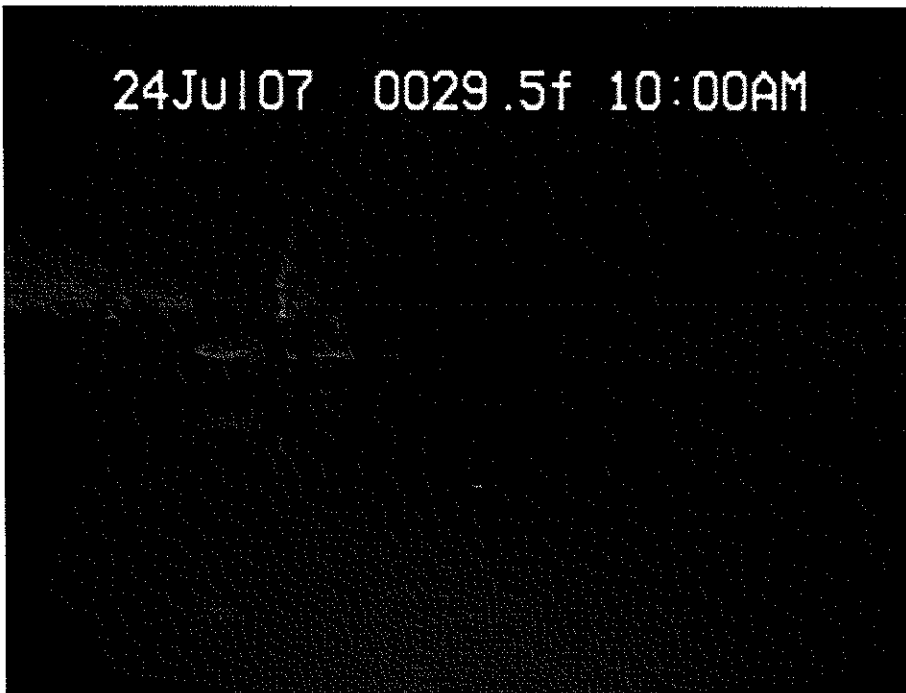


Attachment E: Stormwater System Cleanout Photograph Documentation

Photograph E-03: Lateral line section from DSI-14 to DSI-13. This lateral line is approximately 3-inch diameter concrete pipe.

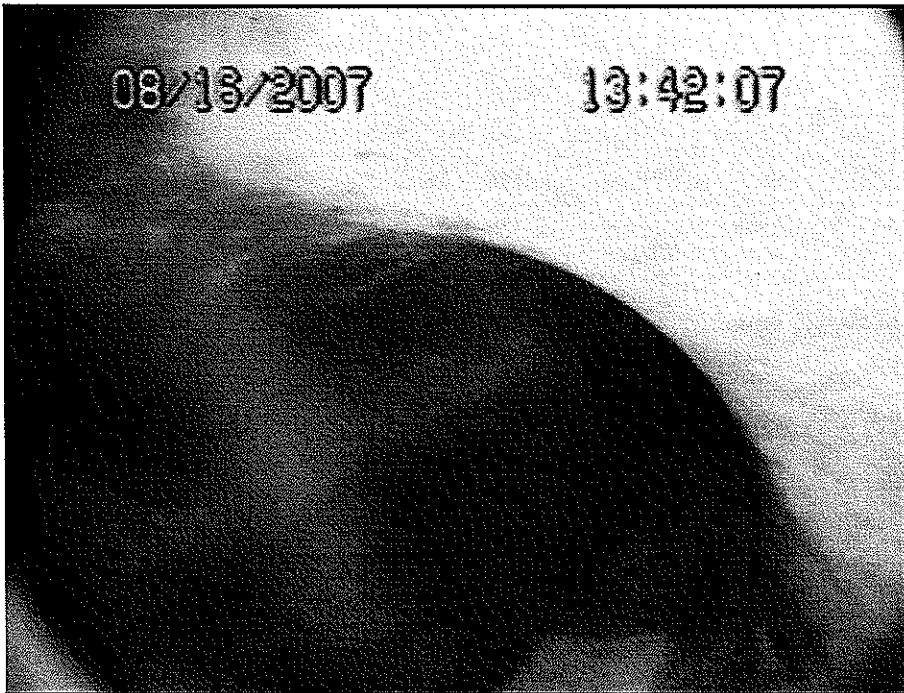


Photograph E-04: Main-line section from DSI-14 to DSI-17B. This section of the mainline is approximately 18-inch diameter concrete-reinforced wood pipe.



Attachment E: Stormwater System Cleanout Photograph Documentation

Photograph E-05: Lateral line section from DSI-20 to the main-line at catch basin DSI-17A. This lateral line is approximately 6-inch diameter concrete pipe.



Photograph E-06: Catch basin DSI-15. The lateral piping between DSI-15 and the main-line was not accessible to clean due to the presence of the piping elbow (below) and the piping connection directly to the main-line (rather than piping to a catch basin).



Attachment E: Stormwater System Cleanout Photograph Documentation

Photograph E-07: Lateral line section connection from DSI-15 to the main-line between catch basins DSI-14 and DSI-17B.



Photograph E-08: Lateral line section from DSI-19 to the main-line at catch basin DSI-21. This lateral line is approximately 12-inch diameter concrete-reinforced wood pipe.



Attachment E: Stormwater System Cleanout Photograph Documentation

Photograph E-09: Main-line section from DSI-21 to DSI-23. This section of the mainline is approximately 12-inch diameter wood pipe.

