



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
ALASKA OPERATIONS OFFICE  
Room 537, Federal Building  
222 W. 7<sup>th</sup> Avenue, #19  
Anchorage, Alaska 99513-7588

Site 26.6  
File 4/23/03

RECEIVED

MAY 05 2003

Environmental Cleanup Office

MEMORANDUM

April 21, 2003

SUBJECT: Standard Steel Five Year Review Report

FROM: Kevin J. Oates  
Remedial Project Manager

*Kevin Oates* 4/21/03

THROUGH: David Croxton  
Manager, Brownfields/Site Cleanup Unit 1

*DC*

TO: Michael F. Gearheard  
Director, Environmental Cleanup Office

Attached for your review and concurrence is the First Five Year Review Report for the Standard Steel Superfund Site in Anchorage Alaska. This review is required pursuant to section 121 of the Comprehensive Environmental Response, Compensation and Liability Act. The review was triggered by remedial actions at the site which began on April 23, 1998. The remedial actions resulted in wastes left in place that do not allow for unrestricted use. The findings of the review are that because the remedial actions at the site are protective, the site is protective of human health and the environment.

If you have any questions regarding this review or other activities related to the site, please contact me at (907)-271-6323.




attachment



CONCURRENCE SHEET

FOR

STANDARD STEEL FIVE YEAR REPORT

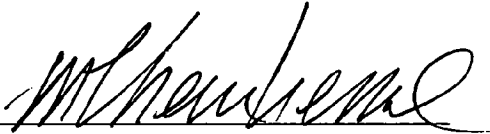
CONCURRENCE						
INITIAL						
NAME	Kevin Oates	David Croxton	Mike Gearheard			
DATE	4/21/03	4/21/03	4/23/03			

**FIVE YEAR REVIEW REPORT**  
**FIRST FIVE-YEAR REVIEW REPORT**  
**FOR**  
**STANDARD STEEL SUPERFUND SITE**  
**ANCHORAGE, ALASKA**

**APRIL 2003**

**Prepared By**  
**United States Environmental Protection Agency**  
**Region 10**

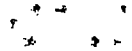
**Approved By:**



**Michael F. Gearheard, Director**  
**Environmental Cleanup Office**  
**U.S. EPA Region 10**



**Date**



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## LIST OF ACRONYMS

ADEC	State of Alaska, Department of Environmental Conservation
ARAR	Applicable or Relevant and Appropriate Requirement
ARRC	Alaska Rail Road Corporation
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
HVOC	Halogenated Volatile Organic Carbons
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
PAH	Polyaromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PQL	Practical Quantitation Limit
PRP	Potentially Responsible Party
PSD	Performing Settling Defendant
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SDWA	Safe Drinking Water Act
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compound

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## **Executive Summary**

The remedy for the Standard Steel & Metal Recycling Yard Superfund Site in Anchorage, Alaska includes; removal and offsite disposal of regulated material stockpiled on-site; offsite disposal of scrap and debris; excavation, stabilization and capping of contaminated soils on site; maintenance of the cap and erosion control structures on Ship Creek; institutional controls; and monitored groundwater. The site achieved Construction Completion with the signing of the Final Close Out Report on June 26, 2002. The trigger for this five-year review was the actual start of construction on April 23, 1998.

The assessment of this five-year review found that the remedy was constructed in accordance with the requirements of the Record of Decision (ROD) signed on July 16, 1996. The immediate threats have been addressed and the remedy is expected to remain protective of human health and the environment. Groundwater monitoring will continue for another five years to ensure on-site groundwater is not adversely impacted by stabilized material, and that no offsite migration occurs that could affect Ship Creek.

## Five-Year Review Summary Form

### SITE IDENTIFICATION

Site name (from WasteLAN): Standard Steel & Metals Salvage Yard

EPA ID (from WasteLAN): AKD980978787

Region: 10

State:  
Alaska

City/County:  
Anchorage

### SITE STATUS

NPL status:  Final  Deleted  Other (specify) \_\_\_\_\_

Remediation status (choose all that apply):  Under Construction  Operating  Complete

Multiple OUs?  YES  NO

Construction completion date: 06/26/2002

Has site been put into reuse?  YES  NO

### REVIEW STATUS

Lead agency:  EPA  State  Tribe  Other Federal Agency \_\_\_\_\_

Author name: Kevin Oates

Author title: Remedial Project Manager

Author affiliation: USEPA Region 10

Review period:\*\* 03/04/2003 to 04/21/2003

Date(s) of site inspection: 03/06/2003

Type of review:

Post-SARA  Pre-SARA  NPL-Removal only  
 Non-NPL Remedial Action Site  NPL State/Tribe-lead  
 Regional Discretion

Review number:  1 (first)  2 (second)  3 (third)  Other (specify) \_\_\_\_\_

Triggering action:

Actual RA Onsite Construction  Actual RA Start at OU# \_\_\_\_\_  
 Construction Completion  Previous Five-Year Review Report  
 Other (specify) \_\_\_\_\_

Triggering action date (from WasteLAN): 04 /23 /1998

Due date (five years after triggering action date): 04/23/2003

\* ["OU" refers to operable unit ]

\*\* [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN ]



## **Five-Year Review Summary Form, cont'd.**

### **Issues:**

Drainage was temporarily affected due to local street paving. This was corrected in 2001.

### **Recommendations and Follow-up Actions:**

Continue annual operation and maintenance activities to ensure the integrity of the solidified material and cap.

### **Protectiveness Statement(s):**

Because the remedial actions at the site are protective, the site is protective of human health and the environment.

## **I. Introduction.**

The purpose of this five-year review is to determine whether the remedy at the Standard Steel & Metals Yard Recycling Superfund Site is protective of human health and the environment. The methods, findings, and conclusions of five year reviews are documented in five year review reports. The five year review reports identifies any issues found during the review, if any, and identifies recommendations to address them.

The Agency is preparing this five year review report pursuant to CERCLA section 121 and the National Contingency Plan (NCP). CERCLA section 121 states:

*If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgement of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The Agency interpreted this requirement further in the NCP40 CFR section 300.340(f)(4)(ii) states:

*If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

The United States Environmental Protection Agency (EPA) Region 10, conducted the five year review of the remedy implemented at the Standard Steel Superfund site in Anchorage, Alaska. This review was conducted by staff from the Anchorage Operations Office during February, March, and April, 2003. This report documents the results of the review.

## II. Site Chronology

**Table 1: Chronology of Site Events**

Event	Date
Initial Discovery of Problem or Contamination	October 28, 1985
Pre-NPL Removal Actions	June 2, 1986 - June 29, 1988
NPL Listing	August 30, 1990
Administrative Order on Consent to Conduct Remedial Investigation/Feasibility Study	September 23, 1992
Remedial Investigation/Feasibility Study complete	July 16, 1996
ROD Signature	July 16, 1996
Consent Decree to Implement ROD	December 11, 1996
Consent Decree for Past Costs	January 24, 1998
Remedial Design Start	October 4, 1996
Remedial Design Complete	April 23, 1998
Actual Remedial Action Start	April 23, 1998
Explanation of Significant Differences	November 18, 1998
Construction Finish	August 1, 1999
Final Inspection	August 27, 2001
Construction Completion Date	June 26, 2002
Final Close-out Report	June 26, 2002
Deletion from NPL	September 30, 2002
Five Year Review Start	February 19, 2003

### **III. Background**

#### **Physical Characteristics**

The Standard Steel and Metals Salvage Yard Site was a 6.2 acre metal salvage yard in Anchorage, Alaska. The site is located near the intersection of Railroad Avenue and Yakutat Street, adjacent to Ship Creek. The site is zoned I-2, denoting a heavy industrial district, by the Municipality of Anchorage. The property is in the possession and control of the Alaska Railroad Corporation (ARRC). The site is located within the City of Anchorage. Approximately half of the population of the State of Alaska live in the Anchorage municipal area. A residential area is located a half mile southeast of the site on the east side of Ship Creek, and Elmendorf Air Force Base is a third of a mile to the north.

#### **Land Use & History of Contamination**

The first documented use of the site occurred in October 1950, when it was leased by a construction company for maintenance and storage equipment. Beginning in 1955, various metal recycling and salvage business operated at the site. During recycling and salvage activities, electrical transformers and batteries were handled. Releases of hazardous substances occurred from these activities and inappropriate burial or burning of transformer oil.

#### **Initial Response**

From 1986 through 1988, EPA conducted a series of removal actions to address contamination at the site. EPA removed 1000 gallons of polychlorinated biphenyls (PCBs) contaminated oil, eighty-two 55 gallon drums of Resource Conservation and Recovery Act (RCRA) hazardous waste, 10,450 gallons of waste oil, 185 PCB-contaminated transformers, and 781,000 pounds of lead acid batteries. EPA proposed the site to the National Priorities List (NPL) of Superfund sites on July 14, 1989. The site was finalized on the NPL on August 30, 1990.

#### **Basis for Taking Action**

An Remedial Investigation/Feasibility Study was completed in January 1996. The study identified PCBs, lead, and dioxin/furans as contaminants of concern at the site. The site posed potential threats to human health and the environment through ingestion, dermal contact, and inhalation of contaminated soils. Site groundwater was impacted by soil contamination. Off-site groundwater was not impacted. Dioxin/furans were determined to be a contaminant of concern. However, all detections of dioxin/furans were collocated with soils contaminated with 10 mg/kg or greater PCBs. Therefore, all actions taken to address PCBs would also address dioxin/furans.

#### **IV. Remedial Actions**

##### **Remedy Selection**

On December 11, 1996, a Consent Decree to conduct a Remedial Action (RA), remedial design (RD) and RA construction was entered into by Chugach Electric Association, Inc., J.C. Penney Company, Inc., Bridgestone/Firestone, Inc., Sears Roebuck and Company, and Westinghouse Electric Corporation. The Alaska Railroad Corporation signed the Consent Decree exclusively for the purpose of agreeing to provide access and implement institutional controls. The Settling Defendants agreed to perform the remedial design/remedial action selected in the ROD. Based on the results of the RI/FS and the information in the Administrative Record, on July 16, 1996, the Regional Administrator for EPA Region 10 signed a Record of Decision (ROD) selecting the following remedial actions:

- Removal of regulated material currently stockpiled on-site and investigation derived wastes with subsequent disposal in a RCRA Subtitle C or D landfill, or recycling of the materials;
- Off-site disposal of remaining scrap debris by recycling or disposal in a RCRA Subtitle D landfill or, if the debris is a characteristic hazardous waste or contains greater than 50 mg/kg PCBs or 10ug/100cm<sup>2</sup> PCBs by standard wipe tests, treatment, and disposal in a RCRA Subtitle C or Toxic Substances Control Act (TSCA) landfill;
- Excavation and consolidation of all soils exceeding cleanup levels;
- Treatment of all soils at or greater than 1000 mg/kg lead or 50 mg/kg PCB by stabilization/solidification;
- On-site disposal of treated soils and excavated soils between 10 mg/kg and 50 mg/kg PCBs in a TSCA-compliant landfill.
- Excavation of soils impacted above 1 mg/kg PCBs and 500 mg/kg lead from the flood plain and consolidation of these soils elsewhere on the site;
- Maintenance and repair of the erosion control structure on the bank of Ship Creek;
- Maintenance of treated soils and the landfill;
- Institutional controls to limit land uses of the site to industrial use and, if appropriate, access;
- Monitoring of groundwater at the site to ensure the effectiveness of the remedial action. This included ensuring no adverse impacts to groundwater at the site, as well as potential migration offsite towards Ship Creek.

## **Remedy Implementation**

The remedial design was conducted in conformance with the approved ROD and statement of work for the consent decree. The remedial action was formally initiated in April, 1998. The contractor conducted the remedial actions pursuant to the approved remedial design/remedial action work plans. The only new contaminant encountered was potential unexploded ordnance. However, the work plans anticipated this possibility and remedial actions proceeded with some changes. All suspected ordnance and explosives, and unexploded ordnance was removed and treated by a U.S. Military Explosive Ordnance Detachment from Fort Richardson, Alaska.

The Toxic Substances Control Act (TSCA) disposal cell is located on 2.5 acres of the 6.2 acre site along the northwest boundary of the site. It is approximately 320 feet by 340 feet and extends to a depth of approximately 15 feet below finished grade. The cell holds approximately 55,000 tons of contaminated material, 22,272 of which was stabilized. The contaminated soils are covered with a closed cell foam insulation, 40 mil geomembrane cover, geocomposite drainage layer, and three feet of clean soil. The cell is designed to be utilized for vehicle/equipment storage or future building area. The cell is surrounded on three sides by a 14,000 ton rip rap barrier wall designed to protect against a 500 year (minimum) flood event.

The selected remedy was enhanced by the following approved design changes, which were implemented in 1998 and 1999:

- Excavating all upland surface soils outside the limits of the TSCA landfill which exceed 1.0 mg/Kg PCBs or 250 mg/Kg lead to a depth of three feet; and disposal in the on-site TSCA landfill.
- Including a geomembrane cover system consisting of a four-inch foam insulation layer, 40 mil liner, geonet drainage layer, filter fabric and three feet of clean soil over the landfill;
- Creation of a flood protection barrier on three sides of the landfill; and
- Replacement of the rip rap erosion control wall adjacent to Ship Creek with an Alaska Department of Fish and Game requested natural erosion protection system. This system incorporates native vegetation and artificial logs to secure the stream bank and provide habitat. Based on these changes, an Explanation of Significant Differences was signed on November 18, 1998 to waive 40 CFR 761.75(B)(9)(i), which requires a fence around a TSCA landfill.

A Remedial Action Report was signed on August 1, 1999 and a Final Closeout Report was signed on June 26, 2002 which documents that all work at the site has been completed and all cleanup levels established in the ROD have been achieved through the remedial actions.

### **Operation and Maintenance (O&M)**

Pursuant to the Consent Decree, Chugach Electric Association, Inc., Westinghouse Electric Corporation, Sears, Roebuck and Company, J. C. Penney Company, Inc., and Bridgestone/Firestone, Inc. are responsible for the operation and maintenance procedures. The remedy requires maintenance of the landfill to ensure that it retains its structural integrity and prevents the release of PCBs and lead through erosion, leaching, and excavation. The Operation and Maintenance requirements are presented in the Operations and Maintenance Plan (Revised) July 2000 by ALTA GeoSciences, Inc. These include verification that the construction components of the remedy are intact and operating properly; groundwater monitoring; maintenance of the cap and surface drainage systems; and verifying institutional controls are in place and functioning.

Operation and maintenance has been happening properly with the following exceptions that were noted in an April 30, 2001 letter from EPA concerning a September 28, 2000 inspection. An up gradient well was damaged by site operations in the summer of 2000. EPA was notified of the damage and the well was replaced with a flush mount well. Yakutat Street was paved in 2000 which resulted in changes to run-on and run-off patterns at the site. The PRP Group submitted design changes to EPA for approval to improve site drainage. These were successfully undertaken in 2001. Subsequent to that site inspection EPA noted that onsite drains were partially blocked by debris, snow and litter being deposited on the Erosion Control Wall. The PRP Group has since worked with the onsite tenants to ensure drains are kept clear and on-site debris, snow removal etc is properly maintained. These were found to be well maintained during inspections in March of 2003.

### **Institutional Controls**

The Site has institutional controls in place to restrict access, prevent use of groundwater, and maintain current land use on the property. The Alaska Railroad Corporation (ARRC) is the owner of an exclusive license to the property under the Alaska Railroad Transfer Act. ARRC executed and filed the Declaration of Restrictive Covenants per the Consent Decree requirements with the local land recording district office in Anchorage. ARRC's lease agreements for the property notify the lessee of the Institutional Controls which must be complied with to meet the conditions of the ROD. Additionally, notice of the remedy and the Declaration of Restrictive Covenants was provided to applicable state and local government agencies and all local utility companies.

The Institutional Controls contained in the RD/RA Consent Decree, Record of Decision and recorded through a Declaration of Restrictive Covenants are:

- Ensure that site use continues to be industrial or commercial and prevent use of the site for commercial developments that involve potential chronic exposures of children to soil (e.g., use of the site for a day care center);
- Restrict activities at the site that could potentially impair the integrity of the TSCA landfill;

- Prevent movement of soil containing greater than 1,000 mg/kg lead or 10mg/kg PCBs to the surface or within the top foot of soil where chronic long-term worker exposure could occur;
- Groundwater use restriction recorded with local, regional, and State agencies, departments and utilities.

Table 2 below shows the estimated annual O&M costs for the Standard Steel and Metals Salvage Yard Superfund Site. These reflect the estimated costs for maintenance and monitoring after the completion of on-site remedial action construction in August 1999. The estimated cost of the on-site remedial action construction is \$5.3M.

**Table 2: Annual System Operations/O&M Costs**

Dates		Total Cost rounded to nearest \$1,000
From	To	
August 1999	August 2000	\$12,000
August 2000	August 2001	\$12,000
August 2001	August 2002	\$12,000

## V. Progress Since the Last Review

This is the first Five Year Review.

## VI. Five-Year Review Process

### *Administrative Components*

Members of the Standard Steel and Metals Recycling Yard Site PRP Group and ADEC were notified of the initiation of the five year review in February, 2003. Natural Resource Trustees were notified on March 7, 2003. The five year review team was led by Kevin Oates of EPA. Louis Howard of ADEC assisted in the review as the representative for the support agency. Alex Tula of ALTA Geosciences representing the PRP Group also assisted in the review to ensure technical accuracy.

### *Community Notification and Involvement*

EPA published notification of the five year review in the Anchorage Daily News on March 5, 2003. Approximately 85 postcards were mailed out the week of March 3, 2003 to inform interested parties of the five year review and requested comments be provided by April 4, 2003. No comments were received by EPA during the five year review.



EPA issued a fact sheet and public notices in August 2002 regarding EPA's intent to delete the Standard Steel and Metals Recycling Yard Site from the NPL. The fact sheet announced the public comment period for the deletion proposal, described the completed cleanup activities, and the reasons that EPA was proposing the site for deletion. The fact sheet briefly described future activities that would be conducted at the site, including five year reviews. No comments were received during the public comment period. One comment was received after the comment period closed and was responded to prior to deletion.

EPA will be issuing a fact sheet to announce the availability of this five year review. It will announce that the Five Year Review Report for the Standard Steel and Metals Recycling Yard Site is complete. The results of the review will be available to the public at the Alaska Resource Library & Information Services at 3150 C Street, Suite 100 Anchorage AK 99513 and at the EPA Region 10 website at: <http://www.epa.gov/r10>.

### ***Document Review***

This five year review consisted of a review of relevant documents including the ROD, O&M Plan, maintenance and monitoring data. A list of documents that were reviewed is provided in Attachment D.

### ***Data Review***

Groundwater monitoring has been conducted at the Standard Steel and Metals Recycling Yard Site since the 1980's. The ROD did not retain any contaminants of concern for groundwater. However, the ROD did require groundwater monitoring to ensure that the principal contaminants of concern, lead and PCBs, did not adversely affect groundwater beneath or adjacent to the site. Other metals, as well as VOCs and semi-volatiles were included in the sample analysis. Sampling during the RI/FS detected lead in 3 wells at concentrations ranging from 1.6 ug/l to 3.1 ug/l, which is below the EPA drinking water standard of 15 ug/l. PCBs were detected in two wells at 0.023 and 0.032 ug/l, which are below the EPA drinking water standard of 0.5 ug/l.

Post-ROD groundwater monitoring results indicates no adverse impacts from lead, PCBs, or Halogenated VOCs (HVOCs). A summary of the results by year is presented below.

- 1998. Non-detect for all analytes at the practical quantitation limit (PCBs 0.1 ug/l; lead 5.6 ug/l; HVOCs 1.0 to 8.0 ug/l).
- 1999. Non-detect for PCBs at the practical quantitation limit (0.1 ug/l). Lead detected at concentrations ranging from 0.88 ug/l to 1.1 ug/l. Methylene Chloride was detected in one sample at 2.6 ug/l, but was also found in the lab blank at 1.7 ug/l. This is likely a lab contaminant.
- 2000. May Samples. Non-detect for all analytes at the practical quantitation limit (PCBs 0.5 ug/l; lead 5.6 ug/l; HVOCs 1.0 ug/l).
- 2000. September Samples. Non-detect for PCB and lead at the practical quantitation limit

(PCBs 0.5 ug/l; lead 13.9 to 14.2 ug/l). Methylene chloride was detected in two samples at 1.2 ug/l and 1.5 ug/l, and chloromethane was detected in one sample at 1.2 ug/l. These are considered to be lab contaminants.

2001. Non-detect for PCB and lead at the practical quantitation limit (PCBs 0.099 ug/l; lead 2 ug/l). Tetrachloroethane was detected in one sample at an estimated 0.37 ug/l, which is below the drinking water standard of 5.0 ug/l.

2002. Non-detect for PCBs at the practical quantitation limit (0.1 ug/l). Lead detected at one well at 2.28 ug/l. HVOC were not detected at 2 of 6 wells. In the other four wells, the following estimated results were reported for HVOCs. Well MW-14: 1,2,4-trichlorobenzene 0.53 ug/l, 1,2,3-trichlorobenzene 1.28 ug/l. Well MW-15 naphthalene 1.29 ug/l. Well MW-24 tetrachloroethylene 0.45 ug/l; 1,2,4-trichlorobenzene 0.33 ug/l. Well MW-18 (duplicate of MW-24) tetrachloroethylene 0.45 ug/l; trichlorofluoromethane 0.33 ug/l. All other HVOCs were not detect.

No groundwater wells in the unconfined aquifer have been identified within a half mile of the site. There are no potable water wells on the site.

### ***Site Inspection***

A site walkover was conducted by EPA and ADEC on February 27, 2003 in order to become familiarized with the site location and layout. An inspection of the site was conducted by EPA, ADEC, and a representative of the PRP Group on March 6, 2003. The purpose of the inspection was to assess the protectiveness of the remedy, including the onsite containment facility, the condition of the cover, and runoff and drainage systems. See attachment D for the completed inspection checklist.

No significant issues were identified regarding the onsite containment facility. The condition of the cover appeared to satisfactory, and runoff and drainage systems clear and functioning well. It is of note that the Anchorage area has experienced one of the mildest winters on record. At the time of the inspection there was little snow cover and ice on the ground at the facility.

The institutional controls that are in place include prohibition of disruption of the cover on the TSCA landfill. Vehicle storage is allowable. Numerous trucks, trailers, and some earth moving equipment was observed parked on the capped area. No impacts to the cap were noticed at the locations of these vehicles or elsewhere on the cap.

## **VII. Technical Assessment**

### ***Question A: Is the remedy functioning as intended by the decision documents?***

The review of documents, ARARs, risk assumptions, O&M Reports, the results of site inspection and site questionnaires indicates that the remedy is functioning as intended by the ROD, as modified by the ESD. The stabilization and capping of contaminated soils has achieved the RAOs to minimize the migration of contaminants to groundwater, and to

prevent onsite workers from exposure to contaminated soils.

Operation and maintenance of the cap, drainage areas, erosion control and institutional controls has been largely effective. Three minor incidents have occur since the remedy was implemented. These are briefly discussed below.

- An up gradient well was damaged by site operations in 2000. EPA was notified of the damage and the well was replaced with a flush mount well.
- Yakutat Street was paved in 2000 which resulted in changes to run-on and run-off patterns at the site. The PRP Group submitted design changes to EPA for approval to improve site drainage. These were successfully undertaken in 2001.
- During a site inspection in September 2000, EPA noted that onsite drains were partially blocked by debris, snow and litter. The PRP Group has since worked with the onsite tenants to ensure drains are kept clear.

O&M annual costs are consistent with initial estimates and there are no indications of difficulties with the remedy.

Additional measures were taken at the request of Alaska Department of Fish and Game to provide habitat in Ship Creek. The PRP Group also chose to achieve more stringent soil cleanup levels than required by the ROD.

***Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?***

Yes, all toxicity information, cleanup levels and RAO's remain valid. The PRP Group chose to implement more stringent cleanup levels than required by the ROD. A comparison of ROD required levels and those undertaken by the PRP Group is discussed in Section IV of this report.

***Question C: Has any other information come to light that could call into question the protectiveness of the remedy?***

No weather related events have effected the protectiveness of the remedy. There is no new information that calls into question the protectiveness of the remedy.

#### **Technical Assessment Summary**

According to the site inspection and documents and data reviewed, the remedy is functioning as intended by the ROD. The achievement of more stringent soil clean up levels by the PRP Group than is required by the ROD enhances the protectiveness of the remedy. No changes in toxicity factors for the contaminants of concern were identified since the ROD was issued. Improvements to drainage structures affected by the paving of Yakutat Street reduced potential impacts from the change in drainage off of the street. No other information was identified during the five year review that calls into question the protectiveness of the remedy.

## **VIII. Issues**

None.

## **IX. Recommendations and Follow-up Actions**

Continue to evaluate the results of the groundwater monitoring program to ensure there are no adverse impacts to groundwater under the site or downgradient.

Continue site inspections of the capped area to ensure site activities do not result adversely affect the integrity of the cap.

## **X. Protectiveness Statement(s)**

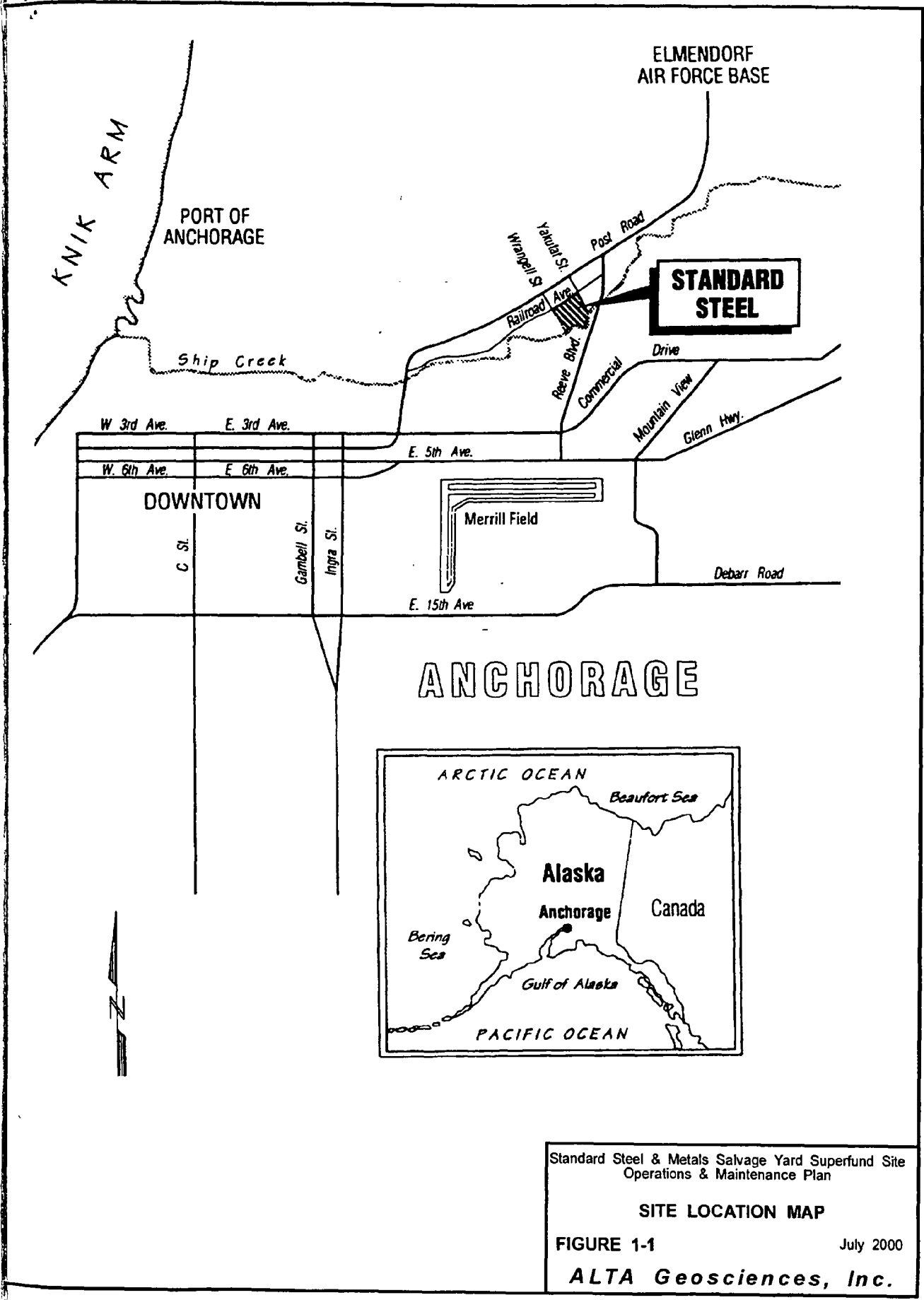
Because the remedial actions at the site are protective, the site is protective of human health and the environment.

## **XI. Next Review**

The next five year review for the Standard Steel and Metals Salvage Yard Superfund Site is required by April 2008, five years from the date of this review.

**Attachments**

**A. Site Maps**



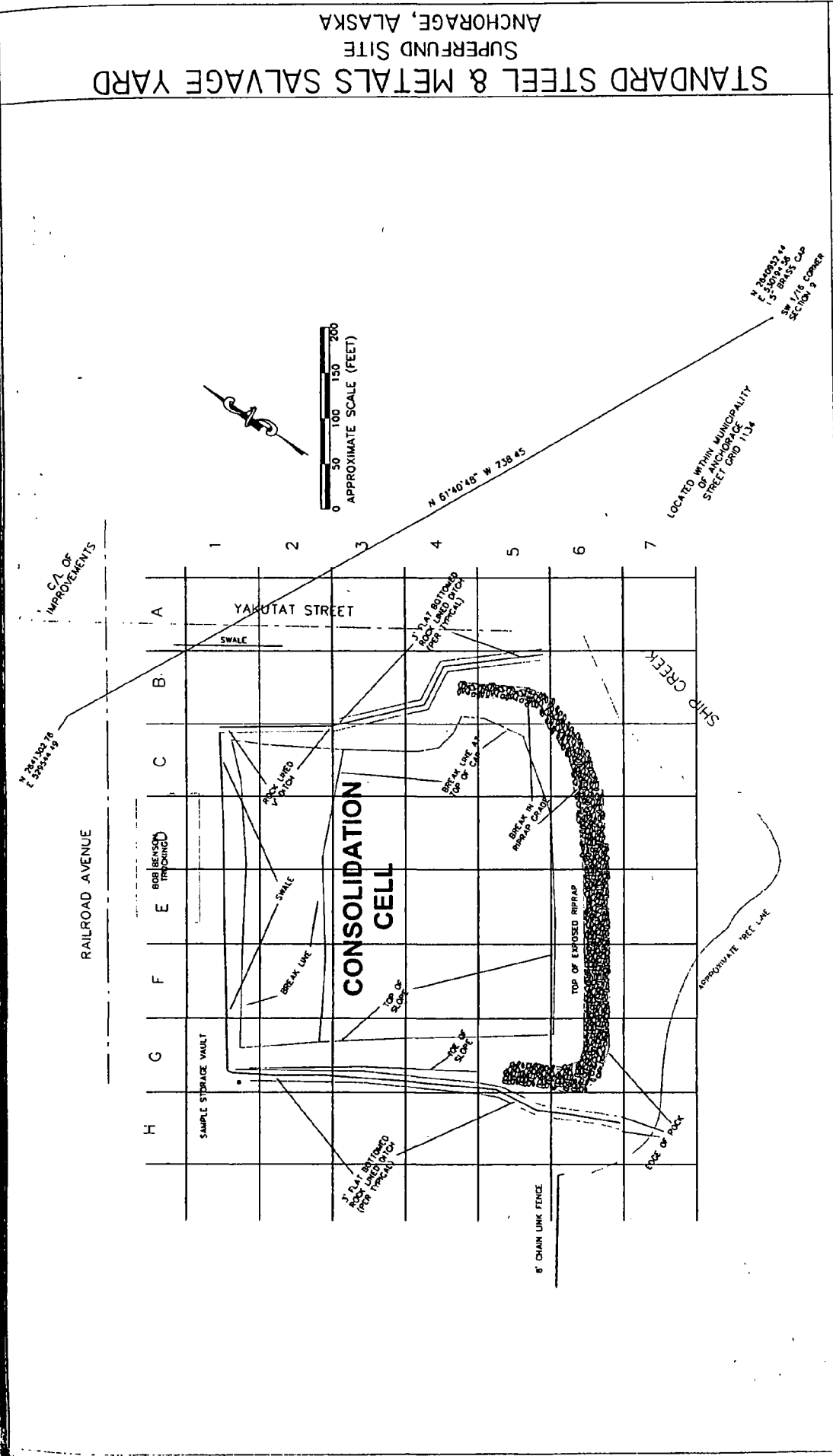
Standard Steel & Metals Salvage Yard Superfund Site  
Operations & Maintenance Plan

**SITE LOCATION MAP**

FIGURE 1-1

July 2000

**ALTA Geosciences, Inc.**



RAILROAD AVENUE

YAKUTAT STREET

SHIP CREEK

CONSOLIDATION CELL

APPROXIMATE PREC. LINE

8' CHAIN LINK FENCE

TOP OF EXPOSED BIRAP

TOP OF SLOPE

BREAK LINE

SWALE

ROCK LINED PATCH

ROCK LINED PATCH (FOR TYPICAL)

TOP OF ROCK

APPROPRIATE PREC. LINE

LOCATED WITHIN MUNICIPALITY OF ANCHORAGE STREET GRID T-34

N 61°40'48" W 738 ±5

N 24°13'57" E 520 ±4 ±9

N 24°03'27" E 510 ±3 ±3 ±6 SEE LITE CORNER SECTION 2

APPROXIMATE SCALE (FEET)

0 50 100 150 200

SCALE OF IMPROVEMENTS

ROB BENSCH PROPOSED

SAMPLE STORAGE VAULT

8' CHAIN LINK FENCE

TOP OF SLOPE

BREAK LINE (FOR C.A.)

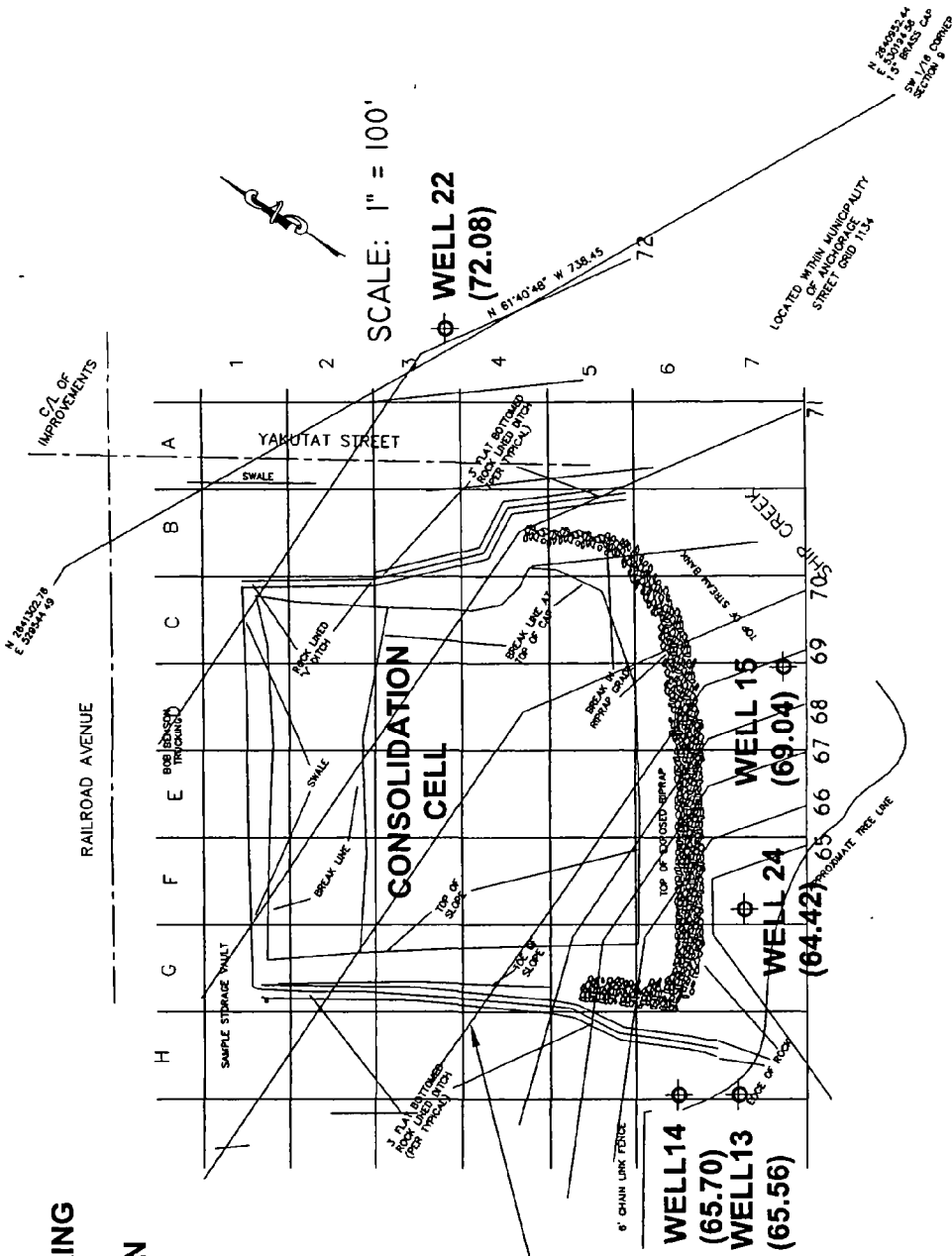
BREAK LINE (FOR C.A.)

TOP OF ROCK

APPROPRIATE PREC. LINE

**MONITORING  
WELL  
LOCATION**

Groundwater contours,  
based on 3-point  
solution for Aug 2002 --  
flow direction is  
perpendicular to  
contours toward  
southwest



**STANDARD STEEL & METALS SALVAGE YARD  
SUPERFUND SITE  
ANCHORAGE, ALASKA**

FIGURE  
3-1

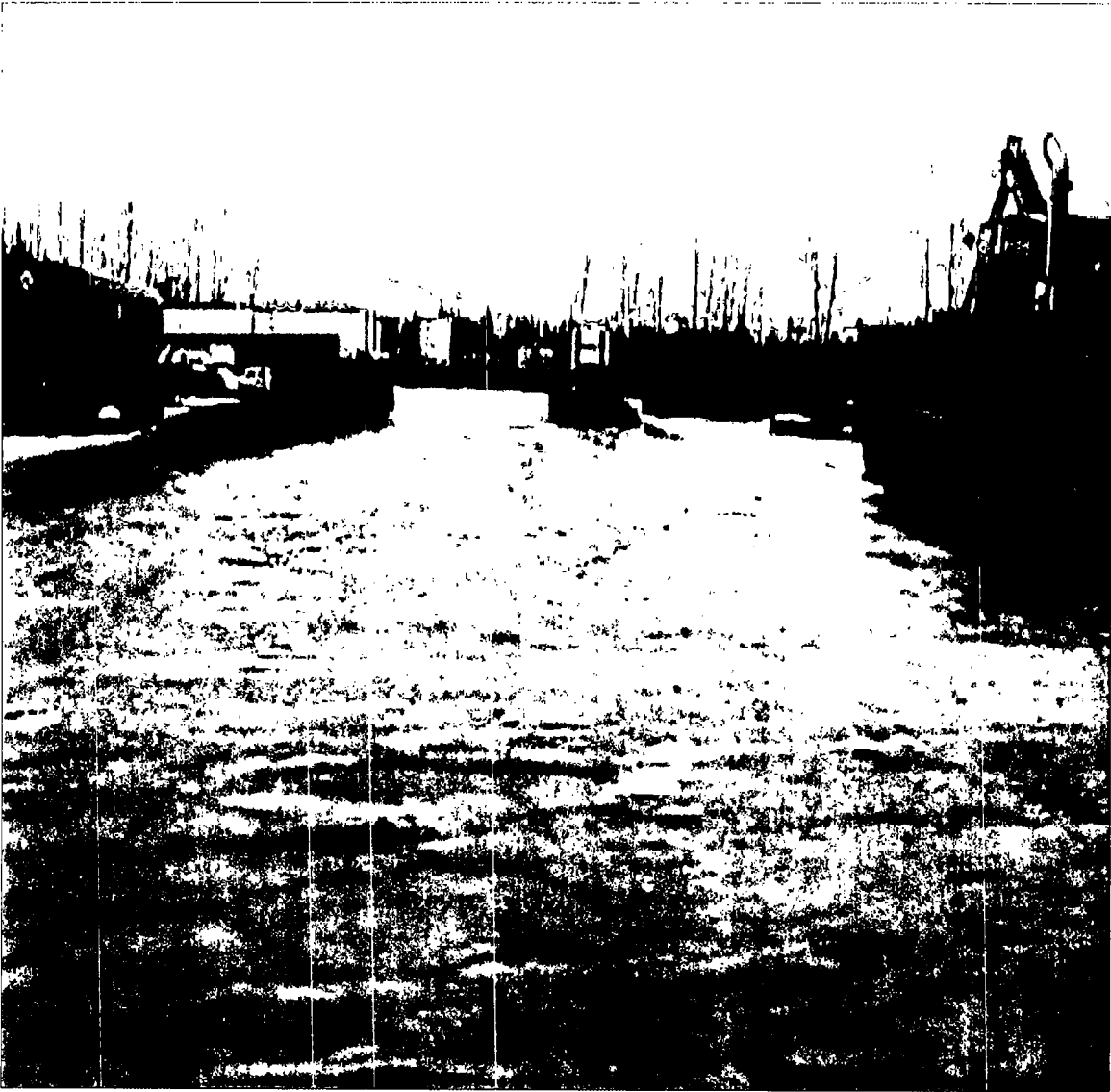
MONITORING WELL  
LOCATIONS

GROUNDWATER MONITORING REPORT  
AUGUST 2002

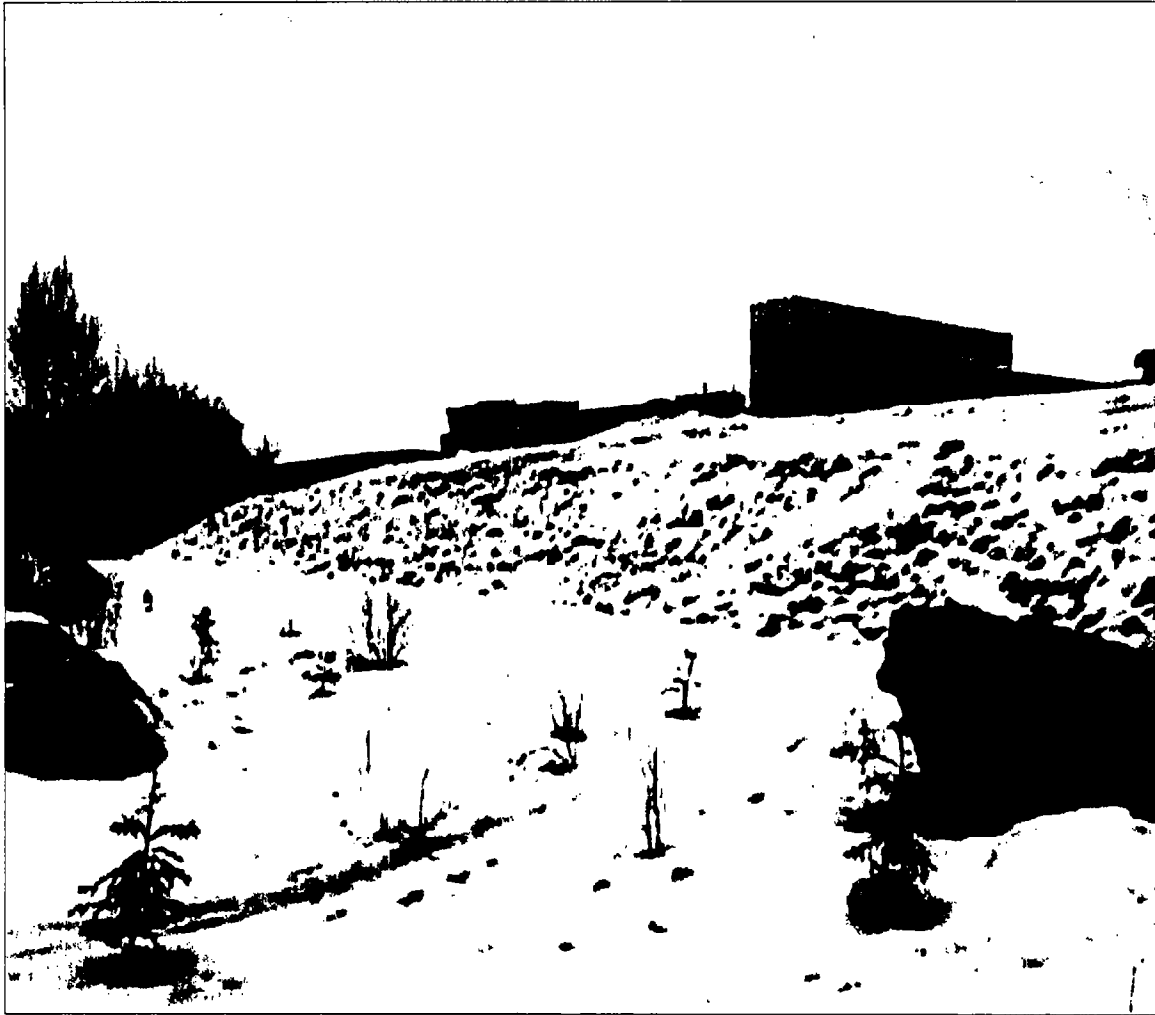
**ALTA GEOSCIENCES, INC.**  
BOTHELL, WASHINGTON



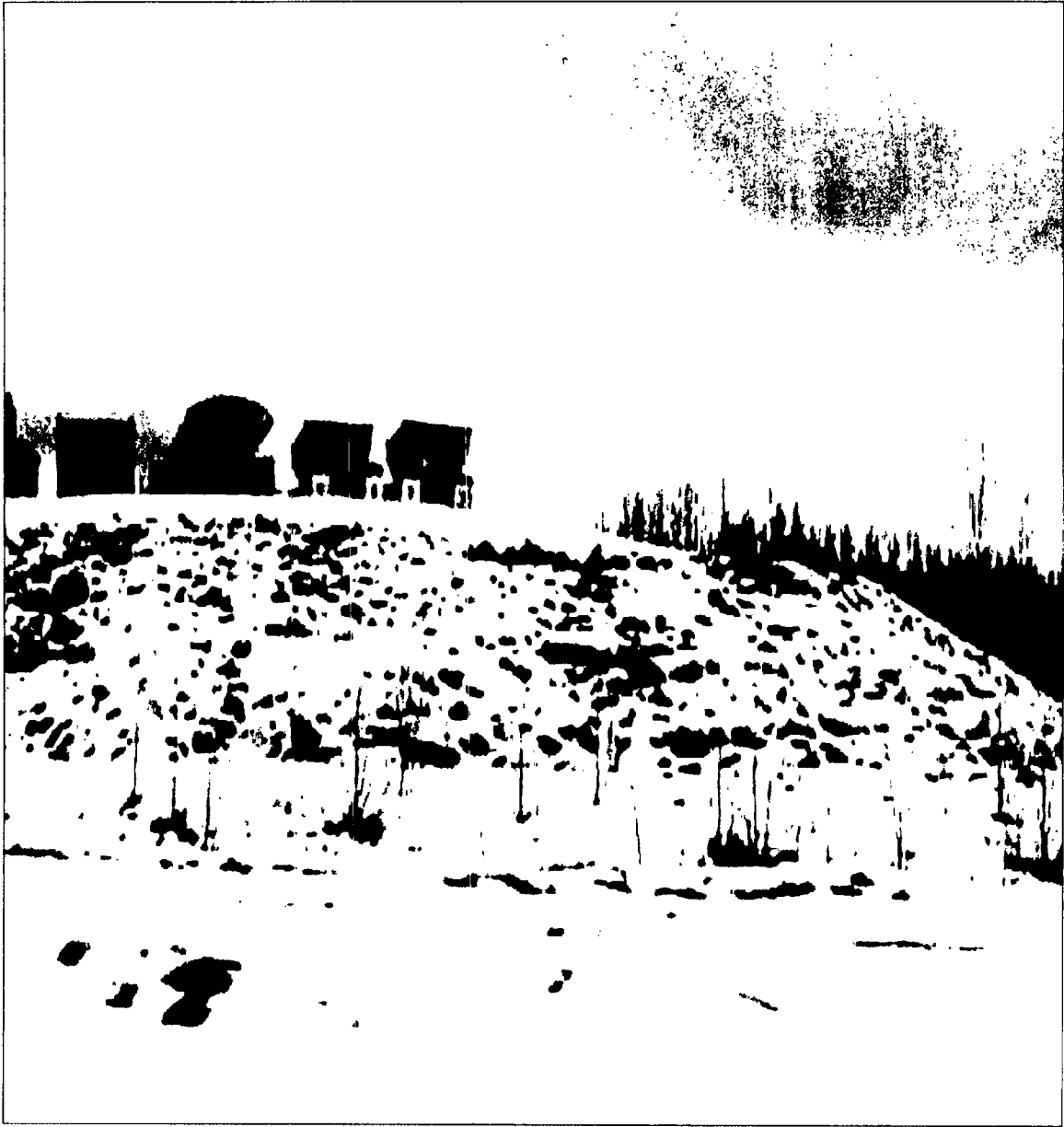
## **B. Photos Documenting Site Conditions**



Picture B-1. View from the northwest of the top of the containment cell. This area is used for parking commercial vehicles. This use is consistent with the industrial land use restrictions for the site.



Picture B-2. View from the southeast near Ship Creek of the rip rap on the stabilization cell. The large boulders in the foreground were placed to dissipate water energy in the event of a Ship Creek flood event.



Picture B-3. View from the southwest of the rip rap on the stabilization cell.



2.	<b>Site-Specific Health and Safety Plan</b> <input type="checkbox"/> Contingency plan/emergency response plan Remarks _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	x N/A x N/A																		
3.	<b>O&amp;M and OSHA Training Records</b> Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	x N/A																		
4.	<b>Permits and Service Agreements</b> <input type="checkbox"/> Air discharge permit <input type="checkbox"/> Effluent discharge <input type="checkbox"/> Waste disposal, POTW <input type="checkbox"/> Other permits _____ Remarks _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date <input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	x N/A x N/A x N/A x N/A																		
5.	<b>Gas Generation Records</b> Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	x N/A																		
6.	<b>Settlement Monument Records</b> Remarks _____ No observed settlement to date _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A																		
7.	<b>Groundwater Monitoring Records</b> Remarks _____	<input type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A																		
8.	<b>Leachate Extraction Records</b> Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	x N/A																		
9.	<b>Discharge Compliance Records</b> <input type="checkbox"/> Air <input type="checkbox"/> Water (effluent) Remarks _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	x N/A x N/A																		
10.	<b>Daily Access/Security Logs</b> Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	x N/A																		
<b>IV. O&amp;M COSTS</b>																						
1.	<b>O&amp;M Organization</b> <input type="checkbox"/> State in-house <input type="checkbox"/> PRP in-house <input type="checkbox"/> Federal Facility in-house	<input type="checkbox"/> Contractor for State <input checked="" type="checkbox"/> Contractor for PRP <input type="checkbox"/> Contractor for Federal Facility																				
2.	<b>O&amp;M Cost Records</b> <input type="checkbox"/> Readily available <input type="checkbox"/> Up to date <input type="checkbox"/> Funding mechanism/agreement in place Original O&M cost estimate_\$283,000 for 30 years O&M <input type="checkbox"/> Breakdown attached  <div style="text-align: center;">Total annual cost by year for review period if available</div> <table style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 30%;">From Aug 1999 To Aug 2000</td> <td style="width: 20%; text-align: center;">\$12,000</td> <td style="width: 50%;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="padding-left: 20px;">Date                      Date</td> <td style="text-align: center;">Total cost</td> <td></td> </tr> <tr> <td>From Aug 2000 To Aug 2001</td> <td style="text-align: center;">\$12,000</td> <td><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="padding-left: 20px;">Date                      Date</td> <td style="text-align: center;">Total cost</td> <td></td> </tr> <tr> <td>From Aug 2001 To Aug 2002</td> <td style="text-align: center;">\$12,000</td> <td><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="padding-left: 20px;">Date                      Date</td> <td style="text-align: center;">Total cost</td> <td></td> </tr> </table>				From Aug 1999 To Aug 2000	\$12,000	<input type="checkbox"/> Breakdown attached	Date                      Date	Total cost		From Aug 2000 To Aug 2001	\$12,000	<input type="checkbox"/> Breakdown attached	Date                      Date	Total cost		From Aug 2001 To Aug 2002	\$12,000	<input type="checkbox"/> Breakdown attached	Date                      Date	Total cost	
From Aug 1999 To Aug 2000	\$12,000	<input type="checkbox"/> Breakdown attached																				
Date                      Date	Total cost																					
From Aug 2000 To Aug 2001	\$12,000	<input type="checkbox"/> Breakdown attached																				
Date                      Date	Total cost																					
From Aug 2001 To Aug 2002	\$12,000	<input type="checkbox"/> Breakdown attached																				
Date                      Date	Total cost																					

3.	<b>Unanticipated or Unusually High O&amp;M Costs During Review Period</b> Describe costs and reasons: _____ Revised drainage controls required in 2001 due to paving of Yakutat Street.
<b>V. ACCESS AND INSTITUTIONAL CONTROLS</b> <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A	
<b>A. Fencing</b>	
1.	<b>Fencing damaged</b> <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Gates secured <input checked="" type="checkbox"/> N/A Remarks _____
<b>B. Other Access Restrictions</b>	
1	<b>Signs and other security measures</b> <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> N/A Remarks _____
<b>C. Institutional Controls (ICs)</b>	
1.	<b>Implementation and enforcement</b> Site conditions imply ICs not properly implemented <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Site conditions imply ICs not being fully enforced <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A  -    Type of monitoring (e.g., self-reporting, drive by) ___ Visual inspection Frequency _____ Quarterly Responsible party/agency _____ PRP Group Contact: Alex Tula see above contact information  Reporting is up-to-date <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Reports are verified by the lead agency <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A  Specific requirements in deed or decision documents have been met <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Violations have been reported <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Other problems or suggestions <input type="checkbox"/> Report attached __X__ Filing of deed notifications previously verified.
2.	<b>Adequacy</b> <input checked="" type="checkbox"/> ICs are adequate <input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A Remarks: Site use remains industrial    Site tenant activities are not disturbing the cap/containment area No potable groundwater use occurring.
<b>D. General</b>	
1.	<b>Vandalism/trespassing</b> <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> No vandalism evident Remarks _____
2.	<b>Land use changes on site</b> <input checked="" type="checkbox"/> N/A Remarks _____
3.	<b>Land use changes off site</b> <input checked="" type="checkbox"/> N/A Remarks _____
<b>VI. GENERAL SITE CONDITIONS</b>	
<b>A. Roads</b> <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A	
1.	<b>Roads damaged</b> <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Roads adequate <input type="checkbox"/> N/A Remarks _____
<b>B. Other Site Conditions</b>	

Remarks _____			
<b>VII. LANDFILL COVERS</b> <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
<b>A. Landfill Surface</b>			
1.	<b>Settlement</b> (Low spots) Areal extent _____ Depth _____ Remarks _____	<input type="checkbox"/> Location shown on site map Depth _____	<input checked="" type="checkbox"/> Settlement not evident
2.	<b>Cracks</b> Lengths _____    Widths _____    Depths _____ Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Cracking not evident
3.	<b>Erosion</b> Areal extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map Depth _____	<input checked="" type="checkbox"/> Erosion not evident
4.	<b>Holes</b> Areal extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map Depth _____	<input checked="" type="checkbox"/> Holes not evident
5.	<b>Vegetative Cover</b> <input type="checkbox"/> Trees/Shrubs (indicate size and locations on a diagram) Remarks _____	<input type="checkbox"/> Grass <input type="checkbox"/> Cover properly established <input type="checkbox"/> No signs of stress	N/A _____
6.	<b>Alternative Cover (armored rock, concrete, etc.)</b> Remarks _____	<input type="checkbox"/> N/A Rip rap sidewalls in good condition	
7.	<b>Bulges</b> Areal extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map Height _____	<input checked="" type="checkbox"/> Bulges not evident
8.	<b>Wet Areas/Water Damage</b>		<input checked="" type="checkbox"/> Wet areas/water damage not evident
9.	<b>Slope Instability</b> _____	<input type="checkbox"/> Slides <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of slope instability
<b>B. Benches</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)			
<b>C. Letdown Channels</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies )			
<b>D. Cover Penetrations</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
<b>E. Gas Collection and Treatment</b> <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
<b>F. Cover Drainage Layer</b> <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			



1.	<b>Outlet Pipes Inspected</b>	<input checked="" type="checkbox"/> Functioning	N/A
2.	<b>Outlet Rock Inspected</b>	<input checked="" type="checkbox"/> Functioning	<input type="checkbox"/> N/A
<b>G. Detention/Sedimentation Ponds</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
<b>H. Retaining Walls</b>		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1	<b>Deformations</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Deformation not evident
	Horizontal displacement_____	Vertical displacement_____	
	Rotational displacement_____		
	Remarks_____	Rip rap walls appear very stable_____	
2.	<b>Degradation</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Degradation not evident
	Remarks_____		
<b>I. Perimeter Ditches/Off-Site Discharge</b>		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1.	<b>Siltation</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Siltation not evident
	Areal extent_____	Depth_____	
	Remarks_____		
2.	<b>Vegetative Growth</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Vegetation does not impede flow		
	Areal extent_____	Type_____	
	Remarks_____		
3.	<b>Erosion</b>	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Erosion not evident
	Areal extent_____	Depth_____	
	Remarks_____		
4.	<b>Discharge Structure</b>	<input checked="" type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks_____		
<b>VIII. VERTICAL BARRIER WALLS</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
<b>IX. GROUNDWATER/SURFACE WATER REMEDIES</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
<b>A. Groundwater Extraction Wells, Pumps, and Pipelines</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
<b>B. Surface Water Collection Structures, Pumps, and Pipelines</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
<b>C. Treatment System</b>		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
<b>D. Monitoring Data</b>			
1.	<b>Monitoring Data</b>	<input checked="" type="checkbox"/> Is routinely submitted on time	<input checked="" type="checkbox"/> Is of acceptable quality
2	Monitoring data suggests.	<input type="checkbox"/> Groundwater plume is effectively contained	<input type="checkbox"/> Contaminant concentrations are declining
Groundwater monitoring indicates no adverse impact to groundwater beneath the site			
<b>D. Monitored Natural Attenuation</b>			

<p>1. <b>Monitoring Wells</b> (natural attenuation remedy)</p> <p><input type="checkbox"/> Properly secured/locked      <input type="checkbox"/> Functioning    <input type="checkbox"/> Routinely sampled      <input type="checkbox"/> Good condition</p> <p><input type="checkbox"/> All required wells located      <input type="checkbox"/> Needs Maintenance      x N/A</p> <p>Remarks _____</p>
<b>X. OTHER REMEDIES</b>
<p>If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction. N/A.</p>
<b>XI. OVERALL OBSERVATIONS</b>
<b>A. Implementation of the Remedy</b>
<p>Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).</p> <p>See text in the Five Year Review report. _____</p>
<b>B. Adequacy of O&amp;M</b>
<p>Describe issues and observations related to the implementation and scope of O&amp;M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.</p> <p>See text in the Five Year Review Report</p>
<b>C. Early Indicators of Potential Remedy Problems</b>
<p>Describe issues and observations such as unexpected changes in the cost or scope of O&amp;M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.</p> <p>_____ N/A</p>
<b>D. Opportunities for Optimization</b>
<p>Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy</p> <p>_____ N/A</p>

#### **D. List of Documents Reviewed**

Record of Decision, Standard Steel and Metals Salvage Yard Superfund Site. July 16, 1996.

Revised Revegetation & Landscaping Plans. Standard Steel and Metals Salvage Yard Superfund Site Anchorage, Alaska. March 11, 1999. Alta Geosciences.

Completion Report. Remedial Action Construction..Standard Steel and Metals Salvage Yard Superfund Site. Alta Geosciences. August 1999.

Operations and Maintenance Plan (Revised). Remedial Design/Remedial Action. Standard Steel and Metals Salvage Yard Superfund Site. Prepared for Standard Steel RD/RA PRP Group. Alta Geosciences. July 2000.

Superfund Final Close Out Report. Standard Steel and Metals Salvage Yard Superfund Site. June 26, 2002.

Notice of Intent to Delete Standard Steel and Metals Salvage Yard Superfund Site. August 14, 2002.

Groundwater Monitoring Reports. Standard Steel and Metals Salvage Yard Superfund Site. Alta Geosciences. April 1999. November 1999. May 2000. September 2000. August 2001. September 2002.

Monthly Progress Reports, Semi-Annual Inspection Reports. Standard Steel and Metals Salvage Yard Superfund Site.

Site Summary Reports. USEPA. Online at : [http://yosemite.epa.gov/r10/cleanup.nsf/  
http://yosemite.epa.gov/r10/nplpad.nsf/](http://yosemite.epa.gov/r10/cleanup.nsf/http://yosemite.epa.gov/r10/nplpad.nsf/)

**C. Checklist of Site Conditions.**

## E. Questionnaire Forms.

**STANDARD STEEL & METALS SALVAGE YARD  
FIVE-YEAR REVIEW  
INTERVIEW QUESTIONNAIRE**

INTERVIEW RECORD	
Name: David R. Duvall	
Title: Project Manager	Organization: Viacom Inc. (formerly Westinghouse Electric Corp.)
Telephone No.: 812-334-2620	E-Mail Address: drduvall@ix.netcom.com
Street Address: 5005 E. State Road 46	City, State, Zip: Bloomington, IN 47401
Interview Date: March 14, 2003	Site Name: Standard Steel
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email	

The following general questions were adapted from the EPA's *Comprehensive Five-Year Review Guidance*.

INTERVIEW QUESTIONS
<p><b>1. What is your overall impression of the work conducted at the site? (general sentiment)</b></p> <p><i>The selected remedy was appropriate and protective. The design approach was conservative (1000 year design life), and the remediation effort was professionally planned and implemented. Careful documentation of the entire process was performed and serves as the basis for deciding on future site uses and maintenance.</i></p>
<p><b>2. From your perspective, what effect have remedial operations at the site had on the surrounding community?</b></p> <p><i>This project cleaned up an eyesore and returned the property to productive use. In addition, it prevented the possible migration of contaminants to critical habitats in the vicinity of the site and reduced the risks to various ecological and human receptor populations.</i></p>

**3. Are you aware of concerns from the local community regarding the site, operation and administration, implementation, or overall protectiveness of the ROD remedies?**

**No.**

**INTERVIEW QUESTIONS (continued)**

**4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?**

**No.**

**5. Since signing the ROD, are you aware of any changes in land uses, access, or other site conditions that you feel may impact the protectiveness of the site?**

**No. The remedial design took into account the potential land uses in that area and provided appropriate protective measures. I have made several site visits since the completion of remedial activities and have not observed any circumstances that would create a problem.**

**6. Were any problems or difficulties encountered after the initiation of remedial action that impacted construction progress and implementability?**

**Construction progress was slowed by the discovery of possible unexploded ordinance items. This difficulty was overcome through the cooperative efforts of the PRP group, the regulatory agencies and the remedial contractor. This allowed the remedial action to be completed as scheduled (one construction season).**

**7. Is there a regular on-site inspection and operation, maintenance and monitoring (OMM) presence at the OU? What is the frequency of O&M site inspections and activities?**

**There is an approved O&M Plan for the site which includes semiannual inspections and annual groundwater monitoring.**



**INTERVIEW QUESTIONS (continued)**

**8. Have there been unexpected O&M difficulties or costs at the site in the last five years?**

*There was some minor erosion in drainage ditches outside the boundaries of the containment cell. As part of the O&M process, these areas were upgraded in 2001 and are now functioning as planned.*

**9. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?**

*Groundwater monitoring was reduced from semiannually to annually in 2001. Given the lack of significant detections of COC, this change does not affect the protectiveness or effectiveness of the remedy.*

**10. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.**

*Reducing the frequency of groundwater monitoring based on the application of experience gained during previous sampling events provides a cost savings that is appropriate and reasonable. Additional opportunities to optimize the O&M process should become available as the protectiveness and durability of the remedy is observed over time.*

**11. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?**

*I feel the PRPs and the EPA have worked cooperatively to address the risks posed by this site. Working within the framework of the pertinent regulations and ARARs, this site was remediated and returned to productive use in a very reasonable and cost effective manner. Groundwater monitoring has shown the effectiveness of the stabilization treatment methodology and could probably be reduced again, or eventually eliminated.*

**STANDARD STEEL & METALS SALVAGE YARD  
FIVE-YEAR REVIEW  
INTERVIEW QUESTIONNAIRE**

<b>INTERVIEW RECORD</b>	
Name: Jennifer Roberts	
Title: Federal Facility/CERCLA section manager	Organization Alaska Dept. Environmental Conservation
Telephone No.: 907-269-7553	E-Mail Address: Jennifer_Roberts@dec.state.ak.us
Street Address: 555 Cordova	City, State, Zip: Anchorage, AK 99501
Interview Date: 3/11/03	Site Name: Standard Steel
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email	

The following general questions were adapted from the EPA's *Comprehensive Five-Year Review Guidance*.

<b>INTERVIEW QUESTIONS</b>
<p><b>1. <i>What is your overall impression of the work conducted at the site? (general sentiment)</i></b></p> <p>Good, we're using many of the design elements from the solidification and capping at Standard Steel for other sites.</p>
<p><b>2. <i>From your perspective, what effect have remedial operations at the site had on the surrounding community?</i></b></p> <p>The remedial actions at this site have allowed the site to be used for economic purposes and remain protective of the surrounding area and users.</p>

**3. Are you aware of concerns from the local community regarding the site, operation and administration, implementation, or overall protectiveness of the ROD remedies?**

**None—DEC has not received any complaints.**

**INTERVIEW QUESTIONS (continued)**

- 4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?**

The only actions causing problems has been the road construction and adjacent property paving their parking lot which covered the monitoring well.

- 5. Since signing the ROD, are you aware of any changes in land uses, access, or other site conditions that you feel may impact the protectiveness of the site?**

No

- 6. Were any problems or difficulties encountered after the initiation of remedial action that impacted construction progress and implementability?**

None

- 7. Is there a regular on-site inspection and operation, maintenance and monitoring (OMM) presence at the OU? What is the frequency of O&M site inspections and activities?**

Yearly groundwater sampling, cap integrity inspection, and drainage channels (including rip rap stabilization) for containment cell.

**INTERVIEW QUESTIONS (continued)**

**8. Have there been unexpected O&M difficulties or costs at the site in the last five years?**

Not to my knowledge.

**9. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?**

Decrease in groundwater monitoring frequency from twice a year to once a year—from the groundwater sample results this change has not decreased the protectiveness of the remedy.

**10. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.**

None

**11. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?**

Continue yearly inspections and five year reviews.

**STANDARD STEEL & METALS SALVAGE YARD  
FIVE-YEAR REVIEW  
INTERVIEW QUESTIONNAIRE**

<b>INTERVIEW RECORD</b>	
<b>Name: Alex Tula</b>	
<b>Title: Project Coordinator</b>	<b>Organization Alta Geosciences, Inc.</b>
<b>Telephone No.: 425-485-1053</b>	<b>E-Mail Address: atula@altageo.com</b>
<b>Street Address: 22833 Both-Evrt Hwy. Ste 102</b>	<b>City, State, Zip: Bothell, WA 98021</b>
<b>Interview Date: 3/10/03</b>	<b>Site Name: Standard Steel, Anchorage, AK</b>
<b>Interview Type:</b> <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email	

The following general questions were adapted from the EPA's Comprehensive Five-Year Review Guidance.

<b>INTERVIEW QUESTIONS</b>
<p>1. What is your overall impression of the work conducted at the site? (general sentiment)</p> <p>A great deal of effort was put into making this a first class and permanent site remediation.</p>
<p>2. From your perspective, what effect have remedial operations at the site had on the surrounding community?</p> <p>An improvement over what was there before (an ugly junk yard). There appear to have been no negative impacts on the surrounding community.</p>
<p>3. Are you aware of concerns from the local community regarding the site, operation and administration, implementation, or overall protectiveness of the ROD remedies?</p> <p>No.</p>

**INTERVIEW QUESTIONS (continued)**

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?

No.

5. Since signing the ROD, are you aware of any changes in land uses, access, or other site conditions that you feel may impact the protectiveness of the site?

No.

6. Were any problems or difficulties encountered after the initiation of remedial action that impacted construction progress and implementability?

Some potentially dangerous military waste was encountered that slowed construction and increased costs somewhat. This was dealt with however and should have no effect on the final remedy.

7. Is there a regular on-site inspection and operation, maintenance and monitoring (OMM) presence at the OU? What is the frequency of O&M site inspections and activities?

Yes. There is an approved O&M Plan for the Site. O&M inspections are performed semiannually. Groundwater is currently monitored annually.

**INTERVIEW QUESTIONS (continued)**

8. Have there been unexpected O&M difficulties or costs at the site in the last five years?

There was a minor difficulty associated with an unexpected erosion problem in the drainage ditches which was resolved in 2001

9. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?

Groundwater monitoring was reduced from semiannually to annually in 2001. This has had no adverse affect on the protectiveness or effectiveness of the remedy.

10. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.

Continued groundwater monitoring on an annual basis seems unnecessary since there have been no significant detections of any site COC's in five years.

11. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

Reduce the groundwater monitoring frequency to biannual (every other year)



**STANDARD STEEL & METALS SALVAGE YARD  
FIVE-YEAR REVIEW  
INTERVIEW QUESTIONNAIRE**

<b>INTERVIEW RECORD</b>	
Name: Jordan Stout	
Title: Environmental Contaminants Specialist	Organization: US Fish & Wildlife Service
Telephone No.: (907) 271-2776	E-Mail Address: jordan_stout@fws.gov
Street Address: 605 West 4 <sup>th</sup> Avenue, Rm G-61	City, State, Zip: Anchorage, AK 99501
Interview Date: April 3, 2003	Site Name: Standard Steel
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email	

The following general questions were adapted from the EPA's *Comprehensive Five-Year Review Guidance*.

<b>INTERVIEW QUESTIONS</b>
<p><b>1. <i>What is your overall impression of the work conducted at the site? (general sentiment)</i></b></p> <p>I am satisfied with the work conducted at the site thus far because, based on a review of our files, it appears that the exposure pathways to our trust resources have been addressed. However, because contaminants remain at the site, future changes in site conditions may warrant an increased level of concern.</p>
<p><b>2. <i>From your perspective, what effect have remedial operations at the site had on the surrounding community?</i></b></p> <p>Unknown.</p>
<p><b>3. <i>Are you aware of concerns from the local community regarding the site, operation and administration, implementation, or overall protectiveness of the ROD remedies?</i></b></p> <p>No, I am not aware of any concerns from the local community regarding the site.</p>

**INTERVIEW QUESTIONS (continued)**

**4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?**

No, I am not aware of any such events, incidents or activities.

**5. Since signing the ROD, are you aware of any changes in land uses, access, or other site conditions that you feel may impact the protectiveness of the site?**

No, I am not aware of any changes in site conditions that may impact site protectiveness. However, there is anecdotal evidence that some of the creekside habitat improvements installed as part of the remedial work have been unsuccessful.

**6. Were any problems or difficulties encountered after the initiation of remedial action that impacted construction progress and implementability?**

No, I am not aware of any such problems or difficulties.

**7. Is there a regular on-site inspection and operation, maintenance and monitoring (OMM) presence at the OU? What is the frequency of O&M site inspections and activities?**

Although some work along Ship Creek has been performed over the years by US Fish & Wildlife Service staff, no specific inspections of the subject site have been performed recently and no regular inspection schedule is anticipated.

**INTERVIEW QUESTIONS (continued)**

**8. Have there been unexpected O&M difficulties or costs at the site in the last five years?**

Not applicable.

**9. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?**

Not applicable.

**10. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.**

Unknown.

**11. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?**

It should be noted that there is current interest in improving anadromous fish passage and habitat within Ship Creek. It is unclear how such projects might directly affect this site or others like it, but if improvements are successful then concern over source areas and exposure potential along the Ship Creek corridor may increase.

**STANDARD STEEL & METALS SALVAGE YARD  
FIVE-YEAR REVIEW  
INTERVIEW QUESTIONNAIRE**

<b>INTERVIEW RECORD</b>	
<b>Name:</b> R. Paul Beveridge	
<b>Title:</b> Counsel	<b>Organization:</b> Chugach Electric Association, Inc.
<b>Telephone No.:</b> 206-389-6122	<b>E-Mail Address:</b> pbeveridge@hewm.com
<b>Street Address:</b> 701 Fifth Avenue 6100 Bank of America Tower	<b>City, State, Zip:</b> Seattle, WA 98104
<b>Interview Date:</b> March 5, 2002	<b>Site Name:</b> Standard Steel
<b>Interview Type:</b> <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email	

The following general questions were adapted from the EPA's *Comprehensive Five-Year Review Guidance*.

<b>INTERVIEW QUESTIONS</b>
<p><b>1. <i>What is your overall impression of the work conducted at the site? (general sentiment)</i></b></p> <p><i>Thorough, protective and complete.</i></p>
<p><b>2. <i>From your perspective, what effect have remedial operations at the site had on the surrounding community?</i></b></p> <p><i>Made the property available for productive use.</i></p>

**3. Are you aware of concerns from the local community regarding the site, operation and administration, implementation, or overall protectiveness of the ROD remedies?**

No.

**INTERVIEW QUESTIONS (continued)**

**4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?**

No.

**5. Since signing the ROD, are you aware of any changes in land uses, access, or other site conditions that you feel may impact the protectiveness of the site?**

No.

**6. Were any problems or difficulties encountered after the initiation of remedial action that impacted construction progress and implementability?**

No.

**7. Is there a regular on-site inspection and operation, maintenance and monitoring (OMM) presence at the OU? What is the frequency of O&M site inspections and activities?**

*Yes. O&M inspections are performed twice a year. Groundwater is currently monitored once a year.*

**8. Have there been unexpected O&M difficulties or costs at the site in the last five years?**

*There was a minor difficulty associated with an unexpected erosion problem in the drainage ditches which was resolved in 2001.*

#### **INTERVIEW QUESTIONS (continued)**

**9. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?**

*Groundwater monitoring was reduced from semiannually to annually in 2001. This has had no adverse affect on the protectiveness or effectiveness of the remedy.*

**10. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.**

*Continued groundwater monitoring seems unnecessary since there have been no significant detections of any site contaminants of concern in five years.*

**11. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?**

*End groundwater monitoring or reduce the groundwater monitoring frequency to biannual (every other year).*

**STANDARD STEEL & METALS SALVAGE YARD  
FIVE-YEAR REVIEW  
INTERVIEW QUESTIONNAIRE**

INTERVIEW RECORD	
Name: Louis Howard	
Title: Project Manager	Organization: AK Dept. Of Environmental Conservation
Telephone No.:907-696-7192	E-Mail Address:louis_howard@dec.state.ak.us
Street Address:CSP 555 Cordova St	City, State, Zip: Anchorage, AK 99501-2617
Interview Date:February 26, 2003	Site Name:Standard Steel & Metals Salvage Yard
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email	

The following general questions were adapted from the EPA's *Comprehensive Five-Year Review Guidance*.

INTERVIEW QUESTIONS
<p><b>1. What is your overall impression of the work conducted at the site? (general sentiment)</b></p> <p>Overall, I believe the work conducted at the site met the remedial action objectives identified in the 1996 record of decision for the site.</p>
<p><b>2. From your perspective, what effect have remedial operations at the site had on the surrounding community?</b></p> <p>None negative, only positive since the contamination at the site was addressed.</p>



**INTERVIEW QUESTIONS (continued)**

**4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?**

No.

**5. Since signing the ROD, are you aware of any changes in land uses, access, or other site conditions that you feel may impact the protectiveness of the site?**

No, current land uses are meeting the requirements of the ROD.

**6. Were any problems or difficulties encountered after the initiation of remedial action that impacted construction progress and implementability?**

No.

**7. Is there a regular on-site inspection and operation, maintenance and monitoring (OMM) presence at the OU? What is the frequency of O&M site inspections and activities?**

Groundwater monitoring is ongoing once a year, operation and maintenance activities are on an as needed basis. Erosion protection wall must be maintained, inspection should be required following any major flood event (Ship Creek), with timely repair of any damage. The top surface and sides of the consolidation cell must be maintained free of deep-rooted plant species and any erosion or man made excavations must be immediately backfilled with engineered fill. Side slopes of the consolidation cell should be inspected for slope failures or slumping following major earthquakes in the Anchorage area, and repairs should be initiated if damage is identified.

## INTERVIEW QUESTIONS (continued)

**8. Have there been unexpected O&M difficulties or costs at the site in the last five years?**

On September 28, 2000, a semi-annual site inspection by EPA occurred. During that inspection 3 items were identified which indicated to EPA that due diligence in implementing the institutional controls were not occurring. 1) Drainage Channels and Pipes: Recent paving on Yakutat St. had resulted in soil erosion which was impacting a drainage structure for the Site. This erosion was placing sediment and dirty water into Ship Creek. Trash and debris was also accumulating in side ditches. 2) Cell Side Slopes: It was alleged that the current tenant was dumping/plowing large amounts of snow over the back of the cell each year. In only two years this had resulted in excessive gravel/soil and wood debris being deposited on the Erosion Control wall. 3) Monitoring Wells: Upgradient Monitoring well 22 had allegedly been destroyed by construction/paving.

Although none of these items has resulted in a failure of the containment cell, they reveal the institutional controls were not being fully implemented. Only two years passed since the remedy was implemented. The site is a TSCA landfill which requires diligent management. All drainage channels and erosion control structures were repaired by the next EPA inspection on August 27, 2001.

**9. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?**

No.

**10. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.**

Yes, Groundwater sampling was reduced to annual monitoring from twice yearly.

**11. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?**

No.