

FSN 1260

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial)	Agreed Order
Action by:)	
U.S.G. Interiors, Inc.)	No. DE 93TC-S163
_____)	

To: U.S.G. Interiors, Inc.
125 South Franklin Street
Chicago, IL 60606-4678

I.

Jurisdiction

This Agreed Order ("Order) is issued pursuant to the authority of RCW 70.105D.050(1).

II.

Statement of Facts

Ecology makes the following Findings of Fact, without admission of such facts by U.S.G. Interiors.

1. U.S.G. Interiors, Inc., ("USGI") owns and operates a rock wool production facility ("site") at 2301 Taylor Way in Tacoma, Washington. The site is located on the shore of the Hylebos Waterway in Commencement Bay. (See Exhibit A).

2. The site is located within the boundaries of the Commencement Bay Nearshore/Tideflats ("CBN/T") Superfund site. The Department of Ecology ("Ecology") and the U.S. Environmental Protection Agency ("EPA") have completed the CBN/T remedial investigation (August 1985) and the feasibility study (February 1989). The remedial actions for contaminated sediments and upland source control within the CBN/T site are documented in a Record of Decision,

which was signed on September 30, 1989 ("CBN/T ROD"). The USGI site is located within the drainage basin of, and is adjacent to, the Head of Hylebos Waterway Problem Area in the CBN/T site. The Record of Decision designated certain "problem chemicals" for the Head of Hylebos Problem Area; these are chemicals which are present in the sediments at toxic concentrations.

3. Problem chemicals for the Head of Hylebos Waterway have been detected at the site. Ecology has detected problem chemicals from a bank seep and bank sediments on the Hylebos Waterway, in on-site soils, and in a storm water outfall that discharges from the site. These problem chemicals include antimony, arsenic, copper, lead, and zinc. Additionally, chromium, nickel, silver, and mercury were detected at elevated concentrations. Water, sediment, and soil sample data are presented in the Tables 1 and 2. State of Washington Water Quality Standards for Surface Waters (Ch. 173-201A WAC), CBN/T ROD Sediment Quality Objectives, and State of Washington Model Toxics Control Act (Ch. 173-340 WAC) Soil Cleanup Standards (Method A, Industrial) are also included in the tables for comparison purposes. A map of sampling locations is found in Exhibit B.

**TABLE 1
WATER SAMPLE DATA**

Constituent	9/23/80 Bank Seep ¹¹ (µg/l)	6/30/92 Bank Seep (µg/l)	6/30/92 Storm Outfall (µg/l)	State Water Quality Standards Marine Acute/Chronic Criteria WAC 173-201A-047 (µg/l)
antimony	515	452	88	no standards have been set
arsenic	<u>2100</u>	<u>1460</u>	<u>563</u>	69/36
chromium	230*	68.3*	14U	1100/50
copper	1637	3750	98.1	2.9/no chronic standard has been set
lead	920	2940	1U	220/8.5 (Updated EPA Criteria, 1992)
nickel	<u>179</u>	34*	10U*	75/8.3
silver	not analyzed	4.0	3.0U*	2.3/no chronic standard has been set
zinc	<u>17200</u>	<u>11300</u>	67.7	95/86
mercury	0.35*	.45*	0.05U*	2.1/0.025

- ¹¹ = 9/23/80 bank seep sample was taken by EPA and is cited in "Summary of Priority Pollutant Data for Point Sources and Sediment in Inner Commencement Bay", Johnson, Yake, Norton; 2/84.
- Underline = Exceeds water quality criteria.
- * = Exceeds water quality criteria for marine chronic only.
- + = Detection limit is above water quality criteria due to sample interference.
- U = Undetected at or above the level shown.

NOTE: Human health criteria from the National Toxics Rule (40 CFR Part 131) are not included here, but may need to be evaluated if a site clean up is conducted in the future.

**TABLE 2
SEDIMENT/SOIL SAMPLE DATA***

Constituent	6/30/92 Bank Sediment (composite) (mg/kg)	12/10/92 Berm Soil (composite) (mg/kg)	12/10/92 Shot Pile Soil (mg/kg)	12/10/92 Soil Near Bins (mg/kg)	CBN/T ROD Sediment Quality Objectives (mg/kg)	MTCA Method A Cleanup Levels/ Industrial Soils (mg/kg)
antimony	15U	17	15	15U	150	--
arsenic	<u>82</u>	102	9.62	9.2	57	200
chromium	37.8	<u>957</u>	<u>1190</u>	804	--	500
copper	151	148	101	150	390	--
lead	152	81	30	37.9	450	1000
nickel	17	47	22	59.1	> 140	--
silver	1.5U	2.2	2.4	2.0	6.1	--
zinc	485	267	317	232	410	--
mercury	.058	.01	0.025	.009	0.59	1

* Compare sediment sample with CBN/T ROD sediment Quality Objectives. Compare soil samples with MTCA Method A Cleanup Levels.

- Underline = Exceeds CBN/T sediment quality objective or MTCA cleanup level.
- = No standard is set for these constituents in the ROD or MTCA Method A cleanup level table.

4. Currently, the feed stocks of the plant consist of basalts and other naturally occurring rock and ferro-alloy slags. From 1959 through 1973, ASARCO slag was used for feed stock. Baghouse dust and shot produced from ASARCO slag feed are known to contain high concentrations of arsenic, copper, lead, zinc, and other metals. Waste products from present-day feed stocks contain several trace materials, including chromium. The source of the elevated metals concentrations in the soils, storm water, and groundwater (as evidenced by seep data) of the Site is believed to be spent shot and baghouse dust, which was, and still is, deposited on the site between the production plant and the Hylebos Waterway.

5. In 1973, USGI (then U.S. Gypsum) scraped baghouse dusts and spent shot from the site and removed the material to two dump sites known as "the Highway 99 site" and "the Puyallup site." In 1984, USGI voluntarily excavated the materials from the two dump sites and sent them to Chem Security Services, Inc., a hazardous waste management facility at Arlington, Oregon.

6. The extent of residual high metals contaminated soils remaining at the production plant site after the 1973 soil scraping is undetermined. It is unknown if groundwater sampling occurred during the 1973 cleanup. Therefore, the extent of groundwater/seep impacts resulting from the time period when ASARCO slag feed stock was used, and the degree to which such groundwater contamination currently persists are yet to be determined.

7. A bank seep sample taken in 1980 exceeded marine water quality criteria for arsenic, copper, lead, nickel, zinc, and mercury. A bank seep sample taken in 1992 also exceeded marine water quality criteria for arsenic, copper, lead, nickel, zinc, and mercury. The elevated metals concentrations detected in these two seep samples, 1980 and 1992, indicate that there is an ongoing source of these metals to the waterway. A storm drain sample taken June 30, 1992, exceeded marine water quality for arsenic and copper.

8. Soil samples from the waste pile of fresh shot and baghouse dust, berm soils, and soil near bins on the site were collected by Ecology on December 10, 1992 (Exhibit B). The concentration of chromium in these samples exceeds the Model Toxics Control Act Method A soil cleanup level of 500 parts per million (Table 2).

9. A sediment sample was collected from the Hylebos Waterway bank (Exhibit B) by Ecology on June 30, 1992. This sample was found to exceed the CBN/T ROD Sediment Quality Objectives for arsenic and zinc (Table 2).

III.

Ecology Determinations

Ecology makes the following Determinations.

1. A remedial investigation is needed to characterize the spatial distribution of contaminants pursuant to WAC 173-340-350. The remedial investigation shall include sufficient information to: (1) determine what, if any, contaminant release pathways and receptors exist, (2) define the extent and magnitude of contamination, and (3) determine what, if any, further action is required. This Order describes the requirements for the initial phase of the remedial investigation. This Order may be amended to incorporate further phases of the investigation, if needed.

2. A feasibility study ("FS") may also be needed to identify and evaluate remedial alternatives for the site cleanup. This study will be used to select a cleanup alternative. Ecology will make the decision whether the FS is needed when sufficient information is available from the phase one study which is required by this Order.

3. USGI is an "owner or operator" as defined in RCW 70.105D.020(6) of a "facility" as defined in RCW 70.105D.020(3).

4. The facility is known as the U.S.G. Interiors, Inc., (USGI) plant site and is located at 2301 Taylor Way in Tacoma, Washington. ✓

5. The substances found at the facility as described above are "hazardous substances" as defined in RCW 70.105D.020(5).

6. Based on the presence of these hazardous substances at the facility and all factors known to the Department, there is a release or threatened release of hazardous substances from the facility, as defined in RCW 70.105D.020(10).

7. By letter dated May 19, 1993, Ecology notified USGI of its status as a "potentially liable person" under RCW 70.105D.040 after notice and opportunity to comment.

8. Pursuant to RCW 70.105D.030(1) and 70.105D.050, the Department may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

9. Based on the foregoing facts, Ecology believes the remedial action required by this Order is in the public interest.

IV.

Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that USGI conduct a Phased Remedial Investigation and Feasibility Study ("RI/FS") at the site as described in this Order. The purpose of the initial phase of the RI/FS is to collect and evaluate sufficient information about the Site to determine whether additional phases are necessary. The specific tasks for the initial phase of the RI/FS are outlined in this section and are described more comprehensively in the work plan which is attached and incorporated onto this Order by reference as Exhibit C. This work plan is entitled "Revised Draft Work Plan, Phased Remedial Investigation, USG Interiors, Inc., Tacoma, WA" dated December 2, 1993. All work will be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein.

1. Implement the Ecology-approved work plan for groundwater and soil investigation (Exhibit C).

a. This plan includes a general description of work to take place and a time line for conducting specific activities. Timelines for deliverables in this Order supersede deliverables timelines in the work plan itself.

b. This work plan includes a Worker Safety and Health Plan per WAC 173-340-810. The Worker Health and Safety Plan ensures the protection of worker safety and health during the site work phases specified in this Order. Although the health and safety plan must be submitted to Ecology for review and comment, Ecology does not have the authority to approve the plan.

c. The work plan also includes a Sampling and Analysis Plan per WAC 173-340-820. This plan specifies proposed analytical methods as well as proposed procedures listed in WAC 173-340-820(2). Analytical procedures used as part of the RI/FS shall be in accordance with WAC 173-340-830.

2. Prepare a Public Participation Plan. Ecology shall maintain the responsibility for public participation at the Site. USGI shall help coordinate and implement public participation for the site.

3. Submit a draft work plan for catch basin/storm drain cleaning (storm drain) for Ecology comment. The Storm Drain Work Plan should include the following elements:

- sampling of catch basin materials to characterize waste for disposal;
- procedure to be used for cleaning of catch basins and drain lines and name of company to perform service;
- plans for storage and disposal of water generated from the cleaning process;
- schedule for storm drain cleaning;
- approximate schedule for sampling the storm water outfall after the catch basins and drain lines have been cleaned. Because storm water outfall sampling should take place at low tide and during a storm event, the exact date for sampling will be somewhat flexible.

4. Submit a final Storm Drain Work Plan to Ecology for review and approval. The final Storm Drain Work Plan shall address Ecology's comments on the draft Work Plan.

5. Implement all elements of the final approved Storm Drain Work Plan. 6. Submit a storm water pollution prevention plan for the site following the format under the NPDES Baseline General Permit for Storm Water for Ecology's review and approval.

7. All submittals prepared pursuant to this Order shall be in conformance with the general submittal requirements of WAC 173-340-840. Raw analytical and QA/QC data shall be provided in the RI/FS and Storm Drain Reports along with a tabular summary of each data type.

V.

Incorporation of Exhibits

All exhibits are hereby incorporated into this Order by reference and are integral and enforceable parts of this Order. Any inconsistencies between this Order and Exhibit C (Work Plan) are superseded by the language of the Order.

VI.

Deliverables and Due Dates/Time Frames

Listed below are items required to be delivered by USGI to Ecology and their associated deliverable due dates/time frames:

<u>Deliverable #</u>	<u>Deliverable Name/Description</u>	<u>Deliverable Due Date/Time frame</u>
1	<u>Final Phased Remedial Investigation RI/FS Work Plan</u> Round one groundwater sampling, surface soils sampling, and round two groundwater sampling will take place according to the schedule outlined in the work plan.	Attached to this Order as Exhibit C
2	<u>Progress Reports</u> USGI shall provide short written or verbal progress reports to keep Ecology informed about site activities.	One per month

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|---|--|---|
| 3 | <u>Summary Letter</u>
USGI shall submit a letter summarizing the results of the surface soil samples and the first round of groundwater samples. This letter shall include copies of chemical analysis results and well logs. | 4 weeks after receipt of round one groundwater sampling results |
| 4 | <u>Draft Storm Drain Work Plan</u> | 4 weeks after the effective date of the Agreed Order |
| 5 | <u>Final Storm Drain Work Plan</u> | 3 weeks after receipt of Ecology's comments on draft |
| 6 | <u>Final Storm Drain Report</u> | 4 weeks after storm water outfall sampling |
| 7 | <u>Draft Storm Water Pollution Prevention Plan (SWPPP)</u> | 12 weeks after effective date of the Agreed Order |
| 8 | <u>Final Storm Water Pollution Prevention Plan</u> | 4 weeks after receipt of Ecology's comments on draft |
| 9 | <u>Draft RI/FS Report</u>
A draft RI/FS Report which presents and summarizes all data and results shall be submitted for Ecology review. | <p>If analytical results of first sampling round show no threat to human health or the environment, the second sampling round will take place as outlined in the work plan and a draft RI report will be submitted to Ecology within 10 weeks after the final groundwater analytical results are received.</p> <p>If analytical results of the first sampling round show a threat to human health or the environment, a schedule for further work and reports will be negotiated between Ecology and USGI. Ecology will notify USGI within 30 days of receiving the summary letter required as deliverable #3 if further work is necessary.</p> <p>Date to be established in the RI/FS Work Plan.</p> |

10	<u>Final RI/FS Report</u> USGI shall incorporate all Ecology comments received regarding the draft RI/FS Report into a final RI/FS Report.	4 weeks from receipt of Ecology's comment letter
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VII.

Terms and Conditions of Order

1. Definitions. Unless otherwise specified, the definitions set forth in Chapter 70.105D RCW and Chapter 173-340 WAC shall control the meanings of the terms used in this Order.
2. Public Notice. RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.
3. Remedial Action Costs. After November 16, 1993, USGI shall pay to Ecology costs incurred by Ecology pursuant to this Order. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, oversight and administration. Ecology costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). USGI shall pay the required amount within 90 days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general description of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs will result in interest charges.
4. Designated Project Coordinators. The project coordinator for Ecology is:

Joyce Mercuri
Washington State Department of Ecology
Southwest Regional Office
Post Office Box 47775
Olympia, WA 98504-7775

Telephone (206) 586-4692

The project coordinator for USGI is:

Frank May
U.S.G. Interiors, Inc.
125 South Franklin Street
Chicago, IL 60606-4678

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and USGI, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the project coordinator(s). Should Ecology or USGI change project coordinator(s), written notification shall be provided to Ecology or USGI at least ten (10) calendar days prior to the change.

5. Performance. All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience, and expertise in hazardous waste site investigation and cleanup. USGI shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement at the Site.

Except when necessary to abate an emergency situation, USGI shall not perform any remedial actions at the USGI plant site outside that required by this Order unless Ecology concurs, in writing, with such additional remedial actions.

6. Access. Ecology or any Ecology-authorized representative shall have the authority to enter and freely move about all property at the Site at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound

recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by USGI. By signing this Agreed Order, USGI agrees that this Order constitutes reasonable notice of access, and agrees to allow access to the Site at all reasonable times for purposes of overseeing work performed under this Order. Ecology shall provide reasonable notice before entering property unless an emergency prevents notice. USGI shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice before any sampling activity. Upon request, Ecology shall allow split or replicate samples to be taken by USGI and shall provide seven (7) days notice before any sampling activity, provided this does not interfere with Ecology's sampling.

7. Retention of Records. USGI shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of USGI, then USGI agrees to include in their contract with such contractors or agents a record retention requirement meeting the terms of this paragraph.

8. Reservation of Rights/No Settlement. This Agreed Order is not a settlement under Ch. 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority. Ecology will not, however, bring an action against USGI to recover remedial action costs paid to and received by Ecology under this Agreed Order. In addition, Ecology will not take additional enforcement actions against USGI to require those remedial actions required by this Agreed Order, provided USGI complies with this Agreed Order.

Ecology reserves the right, however, to require additional remedial actions at the Site should it deem such actions necessary.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the releases or threatened releases of hazardous substances from the USGI site.

In the event Ecology determines that conditions at the Site are creating or have the potential to create a danger to the health or welfare of the people on the Site or in the surrounding area or to the environment, Ecology may order USGI to stop further implementation of the Order for such period of time as needed to abate the danger.

9. Transference of Property. No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by USGI without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to transfer of any legal or equitable interest USGI may have in the Site or any portions thereof, USGI shall serve a copy of this Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in such interest. At least thirty (30) days prior to finalization of any transfer, USGI shall notify Ecology of the contemplated transfer.

10. Compliance with Other Applicable Laws. All actions carried out by USGI pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements.

VIII.

Satisfaction of this Order

The provisions of this Order shall be deemed satisfied upon USGI's receipt of written notification from Ecology that USGI has completed the remedial activity required by this Order, as amended by any modifications, and that all other provisions of this Order have been complied with.

IX.

Enforcement

1. Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

- A. The Attorney General may bring an action to enforce this Order in a state or federal court.
- B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the site.
- C. In the event USGI refuses, without sufficient cause, to comply with any term of this Order, USGI will be liable for:
 - (1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and
 - (2) civil penalties of up to \$25,000 per day for each day it refuses to comply.

D. This Order is not appealable to the Washington Pollution Control Hearings Board.

This Order may be reviewed only as provided under Section 6 of Ch. 70.105D RCW.

Effective date of this Order: March 1, 1994

USG INTERIORS, INC.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

By Frank May

Frank May
Director
Corporate Environmental Services

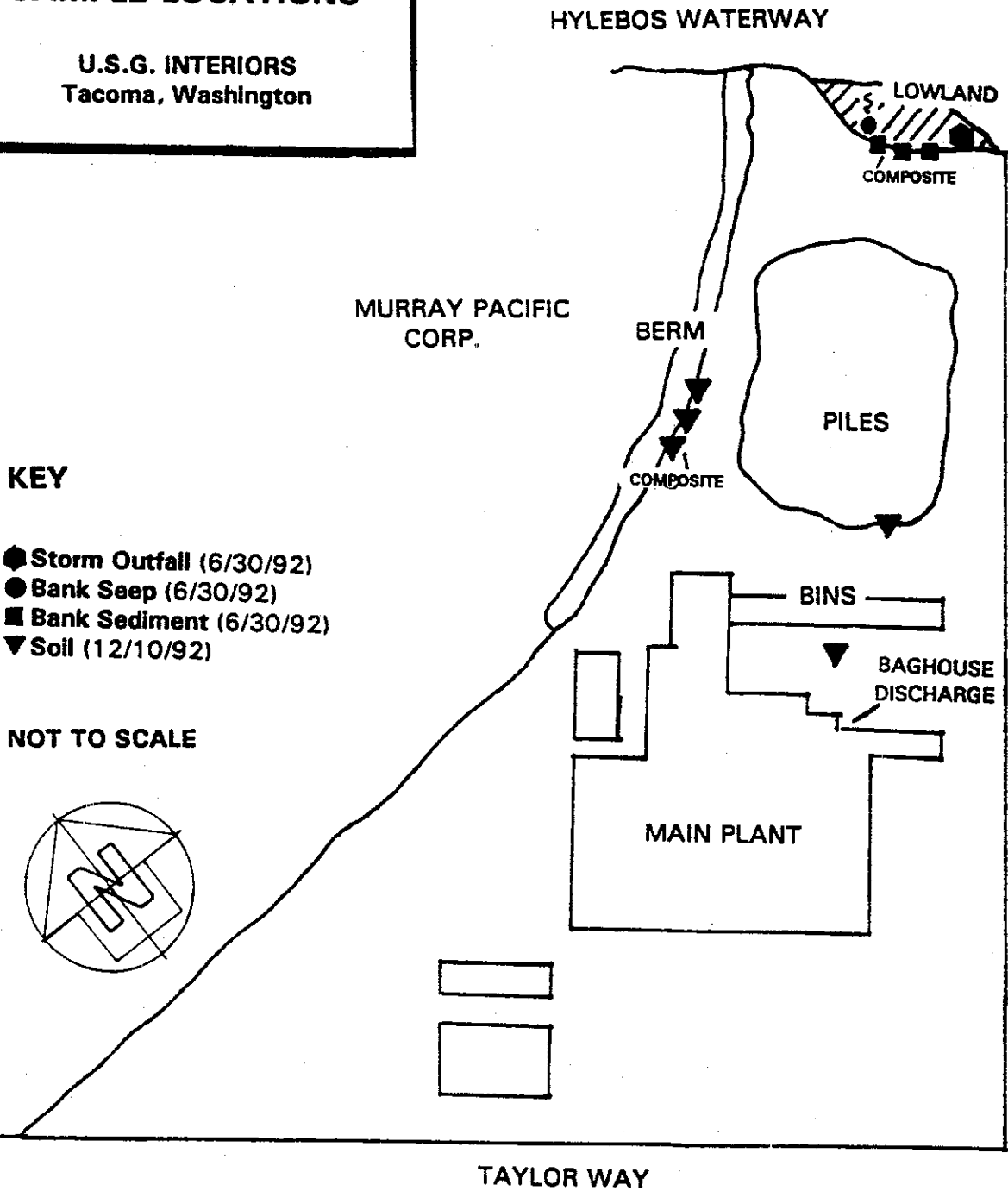
By Megan White

Megan White, P.E.
Southwest Region Supervisor
Toxics Cleanup Program

EXHIBIT B

SITE FEATURES & SAMPLE LOCATIONS

**U.S.G. INTERIORS
Tacoma, Washington**



Applied Geotechnology Inc.

A Report Prepared For

USG Corporation
125 South Franklin Street
Post Office Box 6721
Chicago, Illinois 60680-6721

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ENVIRONMENTAL
WASHINGTON REGIONAL OFFICE

REVISED DRAFT WORK PLAN
PHASED REMEDIAL INVESTIGATION
USG INTERIORS, INC.
TACOMA, WASHINGTON

AGI Project No. 14,937.065

APPLIED GEOTECHNOLOGY INC.
300 120th Avenue N.E.
Building 4, Suite 215
Bellevue, Washington 98005
206/453-8383

December 2, 1993

EXHIBIT C
(INCORPORATED BY REFERENCE)