



**PERIODIC REVIEW
FINAL**

**RW Investments
Facility Site ID#: 1365**

**2150 Taylor Way
Tacoma, Washington 98421**

Southwest Region Office

TOXICS CLEANUP PROGRAM

January 2012

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1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to ensure that human health and the environment are being protected at the former RW Investments site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were initiated under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in concentrations of styrene remaining at the Site in soil that exceed MTCA Method C cleanup levels. The MTCA Method C cleanup levels for soil are established under WAC 173-340-700, 706, and 745. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action.
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- (c) Or, as resources permit, whenever the department issues a no further action opinion
- (d) And one of the following conditions exists:
 - 1. Institutional controls or financial assurance are required as part of the cleanup.
 - 2. Where the cleanup level is based on a practical quantitation limit.
 - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site.
- (b) New scientific information for individual hazardous substances or mixtures present at the site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the site register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The RW Investments property is located at 3376 Lincoln Avenue, Tacoma in Pierce County, Washington (Vicinity Map - Appendix 6.1). The Site is located on the Tacoma Tideflats, and is surrounded by industrial properties. Contamination was detected at the Site in 1992. On March 25, 1998, a Restrictive Covenant was recorded for the property and a No Further Action determination was issued by Ecology on March 30, 1998. The Site is currently occupied by Gardner Fields, which uses the Site to manufacture and distribute petroleum based roofing products.

The Site was initially developed in 1965 as a small lumber company and building contractor. Portions of the Site were used for milling and wood-turning activities in the mid-to-late 1980s. Other assorted businesses, including Pederson Boat Building Company, Christopher Tool and Die, Aurora Consolidators, Far West Trailer Repair, and Greer Steel also occupied the property at various times. In March of 2007, the property was bought by Gardner Tacoma LLC.

2.2 Cleanup Levels

In 1994, Ecology selected Site specific cleanup levels. Groundwater cleanup levels were selected based on the most stringent value between Federal acute toxicity standard as defined in the EPA Water Quality Criteria Gold Book, water quality standards for consumption of aquatic organisms as defined in the National Toxics Rule and MTCA Method C cleanup levels. The soil cleanup levels were developed based on one-hundred (100) times the groundwater cleanup levels.

Table 1: Cleanup Levels and Residual Styrene Concentration

Contaminant	Soil mg/kg	Groundwater µg/l	Maximum Residual Concentrations	
			Soil (mg/kg)	Groundwater (µg/l)
Ethylbenzene	43	430	0.08	82.8
Styrene	1.46	14.6	350	<1.0

2.3 Site Investigations and Remedial Activities

In early 1992 RW Investments retained the environmental consulting firm of AGRA Earth & Environmental (AE&E) to conduct an environmental assessment of the subject property to determine if unreported dumping or spilling of hazardous materials had likely occurred as a result of former site use. As part of AE&E's initial investigation, three borings were advanced and completed as monitoring wells on site. Select soil samples were collected from the borings

and water samples were collected from the monitoring wells in March of 1992 and September of 1993. While the analytical results of AE&E's initial soil samples did not indicate a significant presence of TPH, leachable metals or Volatile Organic Compounds (VOCs) in the Site soils. The groundwater sample results did report that ethylbenzene, styrene, hexachlorobutadiene and total petroleum hydrocarbons (TPH, reported as gas and diesel) were present at concentrations that exceeded MTCA Cleanup Levels. The groundwater flow direction was determined based on the groundwater elevations. Based on the compounds detected in the groundwater and groundwater flow direction, it was determined that the likely source of the contamination was from an area where a group of small storage sheds had been used to house liquid fiberglass resin and petroleum products.

AE&E conducted a remedial excavation in December 1993. Following the demolition and off-site removal of several small storage sheds, AE&E commenced excavation activities. During the excavation process, groundwater was encountered at a depth of approximately 2 feet below ground surface (bgs). Throughout the excavation activities a strong resin-like odor was detected in both the site soils and groundwater. The maximum depth of the excavation reached 5 feet bgs and much of the excavation was filled with groundwater. Approximately 1,900 gallons of groundwater was pumped from the pit during dewatering activities. Six confirmational soil samples were collected from the limits of the excavation. Approximately 192 tons of contaminated soils were delivered to Regional Disposal Company in Seattle. The excavation was backfilled with a mixture of clean crushed rock and pit run gravel. Based on the analytical results, the site soils still contained concentrations of styrene up to 350 milligrams per kilogram (mg/kg). Further removal activities at this location were impeded due to the presence of a large warehouse building.

In April 1994, AE&E met with Ecology staff to discuss the status of their remedial activities and the appropriate cleanup standards for the Site. Based on the location and industrial use of the subject Site, Ecology determined that groundwater cleanup levels for ethylbenzene and styrene would be 430 micrograms per liter ($\mu\text{g/l}$) and 14.6 $\mu\text{g/l}$ respectively. The soil cleanup levels for ethylbenzene and styrene were determined to be 43 mg/kg and 1.46 mg/kg respectively (Table 1).

The Tacoma Pierce County Health Department conducted a Site Hazard Assessment at the Site in 1996. The Site received a hazard ranking of 3, with 1 being the most hazardous and 5 being the least hazardous.

In 1997, additional ground water monitoring was conducted at the three monitoring wells installed in 1992. Gasoline range petroleum hydrocarbons and ethylbenzene were detected at concentrations below MTCA Method A cleanup levels. Styrene was not detected in any of the groundwater samples. Groundwater monitoring data is available as Appendix 6.3.

2.4 Restrictive Covenant

Following remediation activities, it was determined that institutional controls were necessary for the Site to receive a No Further Action determination due to residual contamination below the

warehouse building. A Restrictive Covenant was recorded for the Site in 1998. The Restrictive Covenant imposes the following limitations:

1. Section 1 includes:
 - a. The Property shall be used only for traditional industrial uses, as defined in the City of Tacoma's zoning regulations.
 - b. No groundwater may be taken for domestic, agricultural, or any other use from the property.
 - c. A portion of the Property contains styrene contamination beneath the southeast corner of the center warehouse building on the southern portion of the property. The owner shall not later, modify, or remove the existing structure without prior written approval of Ecology.
2. Any activity on the Site that may interfere with or reduce the effectiveness of the Cleanup Action is prohibited.
3. Any activity on the Site that may result in the release of a hazardous substance that remains as part of the Remedial Action is prohibited without prior written approval from Ecology.
4. The owner of the Site must give written notice to Ecology of the owner's intent to convey any interest in the Site.
5. The owner must restrict leases to uses and activities consistent with the Restrictive Covenant.
6. The owner must notify and obtain approval from Ecology prior to any use of the Site that may be inconsistent with the terms of the Restrictive Covenant.
7. The owner or successor owner shall grant Ecology the right to enter the site at reasonable times.
8. The owner or successor owner reserves the right to remove this Covenant with Ecology's approval.

The Restrictive Covenant is available as Appendix 6.4.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based upon the site visit conducted on November 9, 2011, the Site is currently occupied by a roofing materials manufacturing facility. The Site buildings and compacted gravels surface serve to eliminate direct exposure pathways (ingestion, contact) to contaminated soils. A photo log is available as Appendix 6.5.

The Restrictive Covenant for the Site was recorded on March 25, 1998 and is in place. This Restrictive Covenant restricts groundwater use, prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant.

One deficiency was observed while reviewing Ecology's files for the Site.

- There is no record of notification of the sale of the property from Douglas Granum to the Gardner Tacoma LLC.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

No new relevant scientific information is available for contaminants of concern at the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

Cleanup levels at the site are equal to, or below current MTCA Method A or Method B cleanup levels. These standards are sufficient to be protective of site-specific conditions.

3.4 Current and projected site use

The Site is currently used for industrial purposes. The future Site use is not expected to change as a result of the City of Tacoma zoning regulations. This use does not have any negative impact on the risk posed by hazardous substances contained at the Site.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the site.

4.0 CONCLUSIONS

- The remedial action conducted at the Site appears to be protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, under WAC 173-340-740(6) (f), the cleanup action is determined to comply with cleanup standards, since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Restrictive Covenant for the property is in place and will be effective in protecting public health from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this review, the Department of Ecology has determined that the requirements of the Restrictive Covenant are being met. It is the property owner's responsibility to continue to inspect the Site to assure that the limitations of the Restrictive Covenant are being followed.

4.1 Next Review

The next review for the site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

Hillmann Environmental Company, Inc. October 2, 1997. Letter Summary of Phase I Environmental Site Assessment.

Hillmann Environmental Company, Inc. November 18, 1997. Supplemental Report – Washington “CSCSL” Listing.

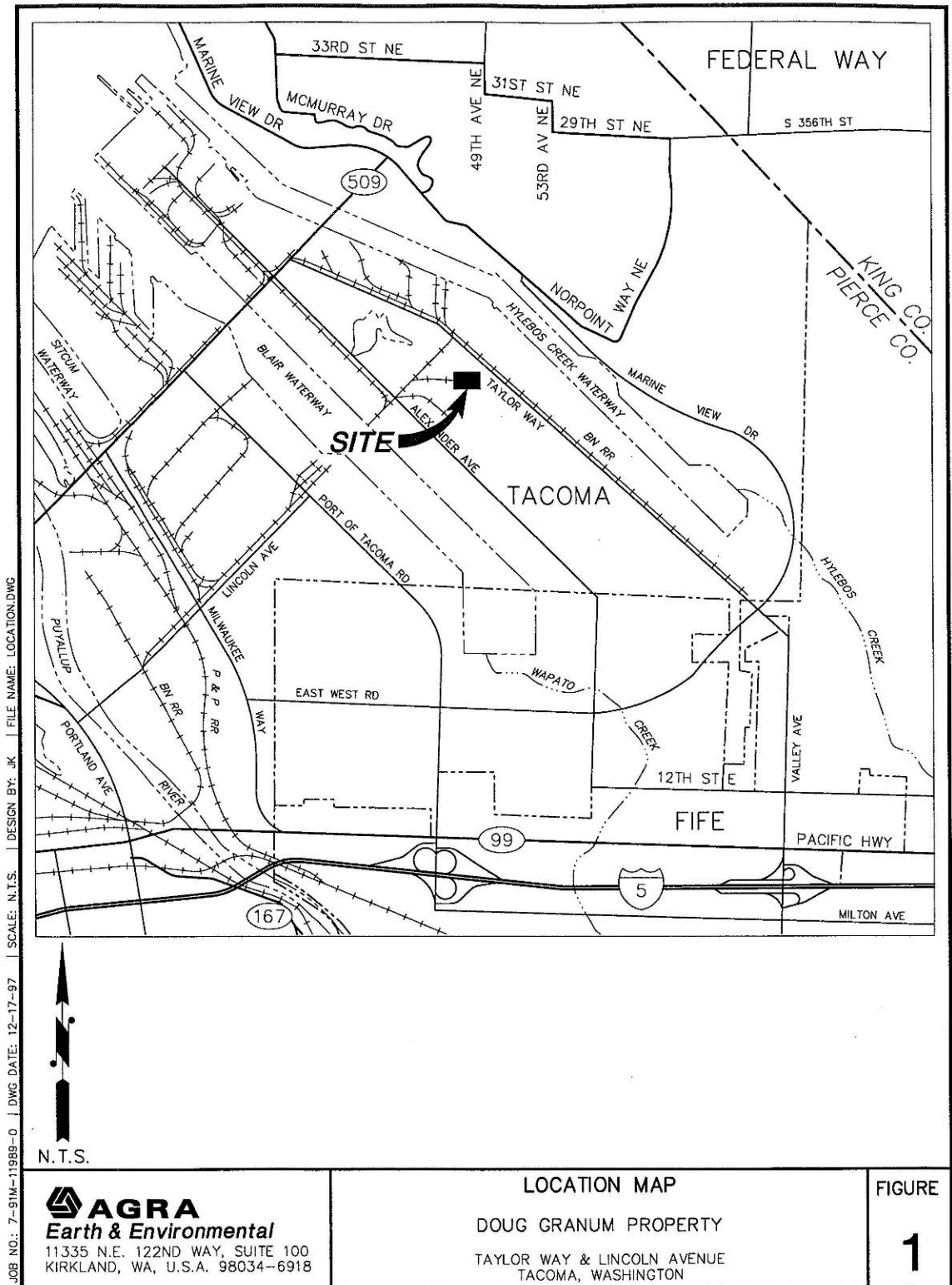
AGRA Earth and Environmental. December 16, 1997. Groundwater Status Report.

Ecology. 1998. Restrictive Covenant.

Ecology. November 9, 2011 Site Visit.

6.0 APPENDICES

6.1 Vicinity Map



6.3 Groundwater Monitoring Data

Table 2: Summary of Analytical Results: Groundwater
Doug Granum Property
Taylor Way & Lincoln Avenue
AGRA Earth & Environmental, Inc. Project No. 7-91M-11989-0

Sample Location	Sample Number	Date Collected	Total Petroleum Hydrocarbons			EPA Method 602				Priority Metals (ppb)	BIN & A EPA 625 (ppb)	Pest./PCBs EPA 608 (ppb)	Vol. Orgs. EPA 624/6260 (ppb)
			8015 (ppb)	WTPH-D (ppb)	WTPH-G (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)				
MW-1	MW-1	18-Mar-92	<500	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND
	WS-02	23-Sep-93 25-Nov-97	NT	<100 NT	<50 NT	<0.5 NT	<0.5 NT	<1 NT	NT	NT	NT	NT	NT
MW-2	MW-2	18-Mar-92	19,000*	NT	NT	NT	NT	NT	NT	NT	Hexachlorobutadiene=14 Cr=12, Cu=42, Zn=930	ND	Ethylbenzene=3,400 Styrene=60
	WS-04	23-Sep-93 25-Nov-97	NT	520 <250	3,600 950*	<0.5 NT	<0.5 NT	<1 NT	NT	NT	NT	NT	NT
MW-3	MW-3	18-Mar-92	<500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	WS-03	23-Sep-93 25-Nov-97	NT	<100 NT	<50 NT	<0.5 NT	<0.5 NT	<1 NT	NT	NT	NT	NT	NT

Notes:

* = Quantified as aged gasoline but appears to be due to compounds other than gasoline.
WTPH-D Ext = Total petroleum hydrocarbons, diesel range (C12-C24) and heavy oil range (C>24), by Washington State Method WTPH-D Extended.
WTPH-G = Total petroleum hydrocarbons, gasoline range (C6-C12), by Washington State Method WTPH-G.
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX), by EPA Method 8020.
EPA 8015 = TPH by EPA Method 8015 Modified.
Vol. Orgs. = Volatile organics compounds, by EPA Method 624/6260
Priority Pol. Metals = Priority Pollutant: Metals
BIN & A = Base/Neutrals & Acids, by EPA Method 625
Pest./PCBs = Organochlorine pesticides & polychlorinated biphenyls, by EPA Method 608.
ND = Compound was not detected, below the laboratory method detection limits.
NT = Sample was not tested for this specific compound.
All concentrations are reported in parts per billion (ppb).

6.4 Environmental Covenant

PIERCE COLIN
9803250082
3-25-1998 08:49 am
Fee Amt: \$11.00

Name & Return Address: *Douglas Granum*
PO Box 171
Southworth, WA 98386

Please print legibly or type information.

Document Title (Or transaction contained therein) <i>Restrictive Covenant</i>
Grantor(s) (Last name first, then first name, middle name) <i>Granum, Douglas</i> ____ Additional Names on Page ____ of Document
Grantee(s) (Last name first, then first name, middle name) <i>The Public</i> ____ Additional Names on Page ____ of Document
Legal Description (Abbreviated: i.e., lot, block, plat or section, township, range) <i>Lots 2, 3 Short Plat 75-184</i> Complete Legal Description on Page ____ of Document
Auditor's Reference Number(s) <i>N/A</i>
Assessor's Property Tax Parcel/Account Number(s) <i>03 2135 5001</i> <i>5002</i>
The Auditor/Recorder will rely on the information provided on this cover sheet. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

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**RESTRICTIVE COVENANT
DOUGLAS C. GRANUM, OWNER
2150 Taylor Way
Tacoma, Washington**

This Declaration of Restrictive Covenant is made pursuant to *RCW 70.105D.030(1)(f)* and *(g)* and *WAC 173-340-440* by *Douglas Granum*, and his successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following documents:

1. *Level II Environmental Site Assessment* (March 1992) completed by AGRA Earth & Environmental, Inc. (Formerly RZA-AGRA) of Kirkland, Washington.
2. *Additional Phase II Evaluation Summary Report* (October 1993) completed by AGRA Earth & Environmental, Inc. (Formerly RZA-AGRA) of Kirkland, Washington.
3. *Description of Findings (Remedial Actions)* (February 1994) completed by AGRA Earth & Environmental, Inc. (Formerly RZA-AGRA) of Kirkland, Washington.
4. *Project Summary* (April 1994) completed by AGRA Earth & Environmental, Inc. (Formerly RZA-AGRA) of Kirkland, Washington.
5. *Phase I Environmental Site Assessment* (October 1995) completed by AGRA Earth & Environmental, Inc. of Kirkland, Washington.
6. *Groundwater Status Report (25 November 1997)* (December 1997) completed by AGRA Earth & Environmental, Inc. of Kirkland, Washington.
7. *No Further Action Letter* (March 1998) completed by Ecology.

These documents are on file at Ecology's Southwest Regional Office (SWRO).

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of *styrene* which exceeded the Model Toxics Control Act Method C Industrial cleanup level of 1.46 parts per million (ppm) for soil established under *WAC 173-340-700, -706, and -745*.

The undersigned, *Douglas Granum* is the fee owner of real property (hereafter "Property") in the County of Pierce, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described as Exhibit A to Short Form Deed of Trust, Parcel A, Tracts 1 and 2 of Pierce County Short Platt, No. 75-184, according to Platt recorded in Volume 3 of Short Platt at page 46, in Tacoma, Pierce County, Washington. Being of City of Tacoma Short Platt No. 75-184. Parcel B, a nonexclusive easement for ingress and egress, as delineated on Pierce County short Platt no 75-184, according to Platt recorded in Volume 3 of Short Platts, at page 46, in Tacoma, Pierce County, Washington. Additionally, the Property is located in the southwest 1/4 of the northeast 1/4 of Section 35, Township 21 North, Range 3 East.

Douglas Granum makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons

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Restrictive Covenant
Douglas C. Granum

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claiming under them, including all current and future owners of any portion of or interest in the property (hereafter "Owner").

Section 1.

1. The Property shall be used only for traditional industrial uses, as described in RCW 70.105D.020(23) and defined in and allowed under the City of Tacoma and/or the county of Pierce zoning regulations codified in the *Land Use Management Plan* as of the date of this *Restrictive Covenant*.
2. Although the concentrations of all contaminants of concern (styrene, ethylbenzene, and hexachlorobutadiene) are below the MTCA Method C cleanup levels, due to low levels of ethylbenzene which have been present in groundwater samples obtained from monitoring well MW-2, no groundwater may be taken for domestic, agricultural, or any other use from the property.
3. A portion of the Property contains styrene contaminated located beneath the southeast corner of the center warehouse building on the southern portion of the property. The Owner shall not alter, modify, or remove the existing structure in any manner, or perform any excavation in this area that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval of Ecology. Some examples of prohibited activities include but are not limited to: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the existing surface beyond its load bearing capability, piercing the surface with a rod, spike, or similar item, bulldozing or earthwork.

Section 2.

Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3.

Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4.

The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 5.

The Owner must restrict leases to uses and activities consistent with the *Restrictive Covenant* and notify all lessees of the restrictions on the use of the Property.

Section 6.

The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this *Restrictive Covenant*. Ecology may approve any

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Restrictive Covenant
Douglas C. Granum

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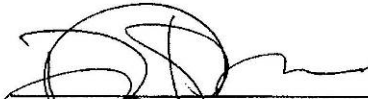
inconsistent use only after public notice and comment.

Section 7.

The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the Property, and to inspect records that are related to the Remedial Action.

Section 8.

The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this *Restrictive Covenant* shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.



Douglas C. Granum
Property Owner

3-10-98

Date

Witnessed and notarized by:



Signature

3-23-98

Date

Tessa Reeve

Printed Name of Witness



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6.5 Photo log

Photo 1: Material Storage Area - from the south



Photo 2: Former Storage Shed Area – from the south



Photo 3: MW- 1 Vicinity at Northwest End of Property- from the east



Photo 4: Site Entrance – from the southeast

