

PERIODIC REVIEW FINAL

Montesano Farm and Home Facility Site ID#: 31164291

412 South Main Street Montesano, Washington 98563

Southwest Region Office

TOXICS CLEANUP PROGRAM

February 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 Montesano Farm and Home (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 conducted under the Voluntary Cleanup Program. The cleanup actions resulted in concentrations of diesel-range petroleum hydrocarbons (TPH-D) in soil exceeding MTCA Method A cleanup levels remaining at the Site. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action.
- Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- Or, as resources permit, whenever the department issues a No Further Action opinion
- And one of the following conditions exists:
 - (a) Institutional controls or financial assurance are required as part of the cleanup.
 - (b) Where the cleanup level is based on a practical quantitation limit.
 - (c) 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 of 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 Montesano Farm and Home Site is located at 412 South Main Street in the commercial center of Montesano, Grays Harbor County, Washington. Currently, Montesano Farm and Home consists of an agricultural supply and hardware store, adjoined warehouse and retail fuel station. The fuel station is a 'card-lock' type, and is not operated by Montesano Farm and Home. Following the remedial activities associated with the removal of a 600-gallon heating oil tank at the Site, a Restrictive Covenant was recorded for the property on March 8, 2006, and a No Further Action determination was issued by Ecology on April 21, 2010. The Site is located within a broader groundwater contaminant plume from known upgradient sources. The Site is bordered to the west and north by retail fuel stations, to the south by railroad tracks and undeveloped land, and to the east by the City of Montesano motor pool facility.

The Site contains three Ecology registered Underground Storage Tanks (USTs) that contain gasoline and dieselfuel. The three USTs are located northeast of the warehouse loading docks and supply fuel to the five product dispensers located east of the UST area. The tanks range between 12,000 and 20,000-gallons in capacity.

Prior to 1988, the former UST system consisted of two pump islands located north of the current retail store and three USTs located in the area of the current tanks. In 1986, an abandoned 3,000-gallon UST was also identified adjacent to the former pump islands.

In 1988, Harold's Petroleum was contracted to remove the diesel dispenser located in front of the retail store and install a new diesel island in the vicinity of the current pump islands. In 1991, Harold's Petroleum installed leak detectors on the tanks and product lines associated with the UST system and removed a 20,000-gallon gasoline UST from the current tank area. The tank was replaced with a 20,000-gallon single wall STiP-3 split tank.

2.2 Cleanup Levels

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at Sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for this Site. The cleanup actions conducted at the Site were determined to be 'routine', few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance.

2.3 Site Investigations

2.3.1 1999 UST Decommissioning and Assessment

In 1999, AA Enviro Assessment decommissioned a 12,000-gallon gasoline UST located at the Site. Following removal of the tank, gasoline-range petroleum hydrocarbons (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX), and TPH-D were identified in soil above the state cleanup levels. The affected soil was excavated and transported to a certified landfill. Confirmation soil samples indicated that the soil removal efforts were successful; however, one groundwater sample was collected with a stratprobe that contained elevated levels of TPH-G and BTEX. Due to the presence of TPH-G and BTEX in groundwater, Associated Environmental Group (AEG) installed three monitoring wells (MW1, MW2, and MW3) in October 2003. During the installation of MW3, low levels of TPH-G and benzene were detected above cleanup levels in soil at 5 feet (ft) below ground surface (bgs).

Quarterly groundwater monitoring events (for TPH-G and BTEX) of the three wells were conducted by AEG on October 23, 2003; January 13, 2004; April 23, 2004; and September 8, 2004. In MW1, TPH-G and BTEX were not detected in the four consecutive sampling events. In MW2, TPH-G and BTEX were not detected in the first round; however, significant levels (above current MTCA Method A cleanup levels) of benzene and TPH-G were detected in the next three rounds of sampling. In MW3, low concentrations (all below cleanup levels) of TPH-G and BTEX were detected at various times. Groundwater sample results are presented in Appendix 6.5.

In February 2004, further characterization using a strataprobe was conducted by AEG to delineate the extent of potential soil contamination in the area surrounding the existing tank nest, including the vicinity of MW3. Of the 10 probes advanced, two of them (B1, located adjacent to MW3, and B10, located north of the UST tank nest) exhibited benzene concentrations in soils just above current MTCA Method-A cleanup levels. TPH-D was also detected at much higher concentrations in B5 and B6 (located just north of the loading dock) above the current Method A soil cleanup levels. Two groundwater samples depicted the same pattern: B2 had TPH-G and benzene above cleanup levels, and B6 had TPH-D above cleanup levels. Probes B5 and B6 were located adjacent to the previously identified abandoned heating oil UST. Soil sampling locations and results are presented in Appendices 6.2 and 6.4, respectively.

2.3.2 Heating Oil UST Removal and Assessment

The abandoned heating oil UST was removed under ENTRIX's supervision in July 2005 along with associated TPH-D contaminated soil and groundwater. Approximately 377 tons of petroleum-contaminated soils were excavated and disposed of off Site. Two additional wells (MW4 and MW5) were then installed within the warehouse, downgradient from the TPH-D excavation.

During the removal of the abandoned UST and diesel-impacted soil and groundwater, a heavy sheen was observed on top of the groundwater seeping from the north wall of the excavation.

One groundwater sample was collected from the groundwater collected in the excavation and one sample was collected from the temporary groundwater storage tank. Elevated levels of TPH-G and BTEX were detected in the groundwater samples. A soil sample was also collected from the location where groundwater was seeping into the excavation. Both TPH-G and BTEX were not detected above the laboratory reporting limits in the soil sample. Soil and groundwater sample results are presented in Appendices 6.4 and 6.5, respectively.

2.3.3 Ecology Groundwater Sampling Program

In September 2004, Ecology initiated a field program to monitor water levels and concentrations of contaminants of concern throughout impacted areas of the City of Montesano. At that time, Ecology identified 35 potential monitoring wells from previously identified LUST sites for assessment. Of these, 26 of the wells were within 1,300 ft of the Site; five were directly upgradient from the Site and three (MW1-MW3) were on the Montesano Site.

Groundwater elevation data indicated a southeasterly groundwater flow direction, and demonstrated that groundwater under both the Sterling's Bank site and Tony's Short Stop site are directly upgradient from groundwater under the Montesano Farm & Home property (Appendix 6.3). Sampling events were conducted in October 2004 and March 2005. Samples were collected from the vicinity of Montesano Farm and Home, the Tony's Short Stop site, and the Whitney's Chevrolet (Sterling Savings Bank) site. A discussion of groundwater sampling results from these three areas is available below:

2.3.3.1 Montesano Farm and Home Site

October 2004 analytical results were similar to earlier sampling events. MW2 contained benzene, while MW1 and MW3 were relatively clean. TPH-D was not detected in any of the wells.

In March 2005, both MW1 and MW2 showed increased levels of TPH-G, MW1 from 110 micrograms per liter ($\mu g/L$) to 2,200 $\mu g/L$ and MFH-MW2 from non-detect to 170 $\mu g/L$. However, there were no detections for MW3. Benzene in MW1 dropped below the method reporting limit of 10 $\mu g/L$; however, the reporting limit was above the Method-A cleanup level of 5 $\mu g/L$.

2.3.3.2 Whitney's Chevrolet Site

The Whitney's Chevrolet site (Whitney's) is located northwest of the Site, across the intersection of Wynoochee Avenue and Main Street. Whitney's has been identified by Ecology as a probable source of petroleum-related and chlorinated solvent-related contamination in soil and groundwater. Ecology sampled three groundwater wells at the Whitney's site.

The October 2004 event samples were analyzed by NWTPH-Gx. The results were as follows: SSB-MW1 was non-detect for TPH-G and BTEX components. SSB-MW2 contained light non-aqueous phase liquid (LNAPL or separated phase product) floating atop the water column in the well and the well was not sampled. SSB-MW3 had elevated levels of TPH-G and benzene

 $(12,000 \mu g/L \text{ and } 160 \mu g/L, \text{ respectively})$ above Method-A cleanup levels and toluene, ethylbenzene and xylenes were detected at or below Method-A cleanup levels.

The March 2005 event samples were analyzed by NWTPH-Gx and volatile organic compounds (VOCs). TPH-G and BTEX components remained non-detect or below Method-A cleanup levels in SSB-MW1. SSB-MW2 and SSB-MW3 exhibited elevated levels of TPH-G and benzene above Method-A cleanup levels, and toluene, ethylbenzene and xylenes detected below cleanup levels.

Analytical results for VOCs indicated the presence of the one or more of the following chlorinated organic compounds in SSB-MW2 and/or SSB-MW3: tetrachloroethane (PCE), 1,2-dichloroethane, and cis-1,2-dichlorethene. Concentrations of PCE exceeded Method A cleanup levels in SSB-MW2.

2.3.3.3 Tony's Short Stop Site

Tony's Short Stop (Tony's) is located to the north across Wynoochee Avenue and based on a southeast groundwater flow direction is upgradient of the eastern portion of the Site. Tony's currently sells gasoline from two USTs. This Site has documented petroleum-contaminated soil and groundwater above Method-A cleanup levels.

In October 2004, Ecology attempted to sample both TS-MWI and TS-MW2. TS-MWI was not sampled due to the presence of excessive sediment in the well. Groundwater collected from TS-MW2 had $81,000~\mu g/L$ TPH-G and $8,500~\mu g/L$ BTEX, which was well above the Method-A cleanup levels. However, due to the presence of excessive sediment in both wells, Ecology was unable to collect water samples and accurate water levels during the March 2005 sampling event.

2.3.4 2005 Soil and Groundwater Investigations

2.3.4.1 Ecology Contracted Investigation

In April 2005, Ecology contracted GeoEngineers to advance probes at locations throughout Montesano, including the Site, Sterling Savings Bank, and Tony's. Four of the probes are of particular interest to the Site conditions; SP6 was located near the center of Tony's northern property boundary in the parking lot, SP27 was located in the southeast corner of the Sterling Savings Bank, and SP28 and SP29 were located on the Montesano Site.

SP6 was advanced to identify potential upgradient contaminants migrating on to Tony's from the northwest. TPH-G and BTEX components were not detected in the soil or groundwater. A soil sample collected from 15 ft bgs in SP27 contained TPH-G and BTEX above Method A cleanup levels. Similarly, a groundwater sample collected from SP27 contained elevated levels of TPH-G and BTEX components above Method A cleanup levels.

Two borings were advanced on the Site, SP29 located about 30 ft northeast of MFH-MW1 and SP28 located about 15 ft north-northwest of MFH-MW2. Low levels of TPH-G and BTEX components were detected in soil collected from the soil-water interface from both borings;

benzene, toluene and xylenes were also detected at low levels above the Method-A cleanup levels in both borings.

Groundwater collected from SP28 and SP29 had elevated levels of TPH-G and BTEX components above Method A cleanup levels. TPH-G ranged from 100,000 to 120,000 μ g/L and benzene from 9,500 to 22,000 μ g/L (Appendices 6.2, 6.4 and 6.5).

2.3.4.2 ENTRIX Phase II Site Investigation

On August 29, 2005, eight borings were advanced to varying depths to characterize groundwater potentially impacted from upgradient sources. Three probes (H1, H7, and H8) were advanced on the Site, while five borings (H2-H6) were located north and immediately upgradient of the Site along the Wynoochee Avenue sidewalk. Three probes (H3, H5, and H8) were advanced for soil-sample recovery. The remaining five probes (HI, H2, H4, H6, and H7), were advanced for groundwater sampling only with no soil extraction. Additionally, groundwater samples were collected from all five on-Site monitoring wells.

Soil samples H3, H5, and H8 were submitted for analysis. The results are below.

- **H3:** Analytical data provided by ARI indicate the presence of BTEX components just below the Method-A cleanup level in H3 at 15 ft bgs.
- **H5:** Traces of TPH-G were detected in H5 at 12.5 ft bgs slightly above the laboratory reporting limits; VOCs were not detected above the laboratory reporting limits.
- **H8:** H8 at 12 ft bgs had low levels of BTEX detected below the Method A cleanup levels; TPH-G was not detected above the laboratory reporting limit.

Groundwater samples collected from probes located north-northwest and upgradient of the former pump islands contained elevated levels of TPH-G and BTEX components above Method A cleanup levels. Additionally, TPH-G and BTEX components were also detected immediately and directly downgradient from the highest concentrations detected during this investigation. The high levels of TPH-G identified in groundwater were extracted from H3, H4, and H8 (250,000 μ g/L, 180,000 μ g/L, and 21,000 μ g/L, respectively). High levels of benzene were detected in H4, H5, H6, and H8, ranging from 660 μ g/L to 13,000 μ g/L. Elevated levels of toluene, xylenes, and ethylbenzene were detected above Method A cleanup levels in H3, H4, and H8.

Analytical results of groundwater samples collected from the existing monitoring wells were similar to previous results. TPH-G and BTEX components were detected at the highest level on-Site in MW1, although benzene and TPH-G were the only components detected above Method A cleanup levels. Sampling locations, and soils and groundwater results are presented in Appendices 6.2, 6.4, and 6.5, respectively.

2.3.5 Site Investigation Summary

Petroleum-related compounds have impacted soil and groundwater at Tony's and Whitney's. These properties are directly upgradient from the Site, and releases from these locations have over time migrated downgradient and contaminated groundwater at the Site (Appendix 6.3).

The upgradient probe and well data indicate that the predominant sources of gasoline and BTEX constituents found on the Montesano Site are from the two upgradient locations. Further, the recent increases in BTEX and TPH-G concentrations reported in the monitoring well samples indicates that these upgradient sources have only recently begun to significantly impact the Site.

TPH-D remains in soil at the Site as a result of releases from the former heating oil UST adjacent to the Site loading dock. This impacted soil is isolated and is not impacting groundwater on the Site. Due to the non-mobile nature of the contaminant, the limited volume remaining in place, the low potential for leaching since it's beneath the dock, and the lack of groundwater contamination, it was determined that the Site would be eligible for a No Further Action determination with the implementation of institutional controls in the form of a Restrictive Covenant. A long-term groundwater monitoring plan was not required by Ecology as a condition of the No Further Action determination.

2.4 Institutional Controls

Institutional controls were put in place at the Site and documented in a Restrictive Covenant which was recorded for the Site on March 8, 2006. The Restrictive Covenant imposes the following limitations:

1.

- a. No groundwater may be taken for domestic, agricultural or any other use from the property.
- b. A portion of the Property contains diesel-range petroleum hydrocarbon contaminated soil located beneath the loading dock on the north side of the building. A portion of the Property contains gasoline-range petroleum hydrocarbon contaminated soil and groundwater beneath paved parking area north of the building. The Owner shall not alter, modify, or remove existing structures in any manner that may result in the release or exposure to the environment of that contaminated soil and groundwater or create a new exposure pathway without prior written approval from Ecology.
- c. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork.

- 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.
- 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.
- 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.
- 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.
- 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 inconsistent use only after public notice and comment.
- 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.
- 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.

The Restrictive Covenant is available as Appendix 6.6.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based upon the Site visit conducted on June 16, 2011, the contaminated soils remain covered by asphalt, the Site loading dock, and the building footprint. These covers continue to provide an adequate barrier to direct exposure pathways (ingestion, contact) to contaminated soils. Additionally, these covers prevent water infiltration, which could increase the mobility of the contaminants to groundwater. A photo log is available as Appendix 6.7.

The Restrictive Covenant for the Site was recorded with Grays Harbor County and remains active. The Restrictive Covenant restricts ground water extraction for any use, activities that may expose contaminated soils contained at the Site, and prohibits any use of the property that is inconsistent with the Covenant.

Soil and groundwater at the Site remain contaminated with TPH-G; however, Site characterization has demonstrated that this contamination results from off-Site releases from the Whitney's and Tony's sites. The remedial actions conducted at the Site are effective at protecting human health and the environmental from the hazardous substances released from the Site.

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

There is no new relevant scientific information for the petroleum contaminants related to the Site.

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

MTCA Method A cleanup levels have not changed for contaminants of concern at the Site since the No Further Action determination was issued on April 21, 2010.

3.4 Current and projected Site use

The Site is currently occupied by the Montesano Farm and Home store. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of more permanent remedies

The remedy implemented included containment of hazardous substances. Containment remains an effective remedy for the limited contamination remaining beneath Site structures. More permanent remedies are available; however, they are not practical for this Site as long as the

Whitney's and Tony's Short Shop sources continue to contribute off-Site contamination to the 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 option selected for the Site appears to be protective of human health.
- 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.
- TPH-G contamination resulting from an off-Site release continues to impact soil and groundwater at the Site.
- A Restrictive Covenant is in place for the property and is effective in protecting public health from exposure to contaminated groundwater

Based on this periodic review, the Department of Ecology has determined that remedial actions conducted at the Site continues to be protective of human health or the environment. The requirements of the Restrictive Covenant are being satisfactorily met and no additional remedial actions are required. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the remedial actions is maintained.

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

AA Enviro Assessment, Inc. Underground Storage Tank Site Characterization Report. March 21, 1999.

Associated Environmental Group, LLC. Site Characterization Report. November 4, 2003.

Associated Environmental Group, LLC. Site Characterization Report. February 6, 2004.

Entrix, Inc. UST Removal and Remediation Report. November 2005.

Entrix, Inc. Modified Phase II Report. January 20, 2006.

Ecology. Restrictive Covenant. May 6, 2006.

Entrix, Inc. Quarterly Groundwtaer Monitoring-Diesel Plume. June 15, 2006.

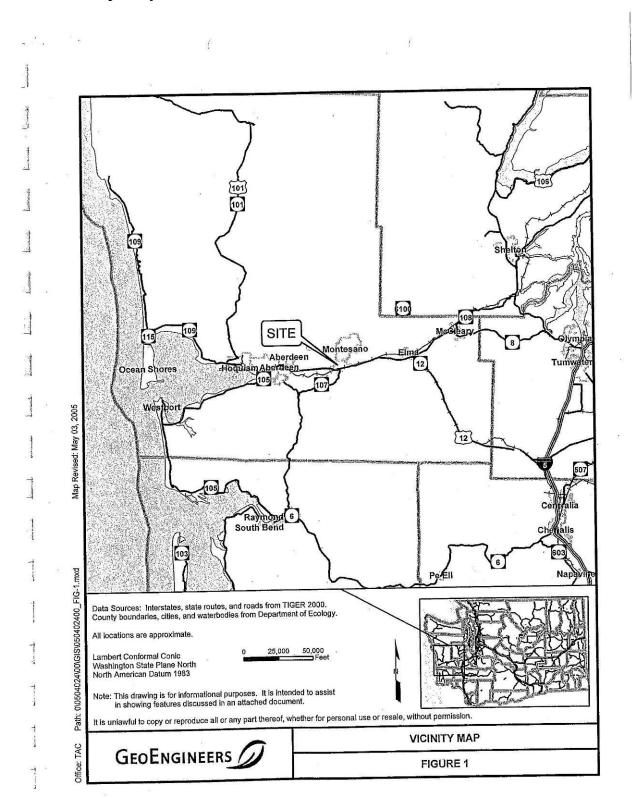
ENSR/AECOM. Second Quarter 2006 Groundwater Monitoring. June 22, 2006.

Ecology. No Further Action Determination Letter. April 21, 2010.

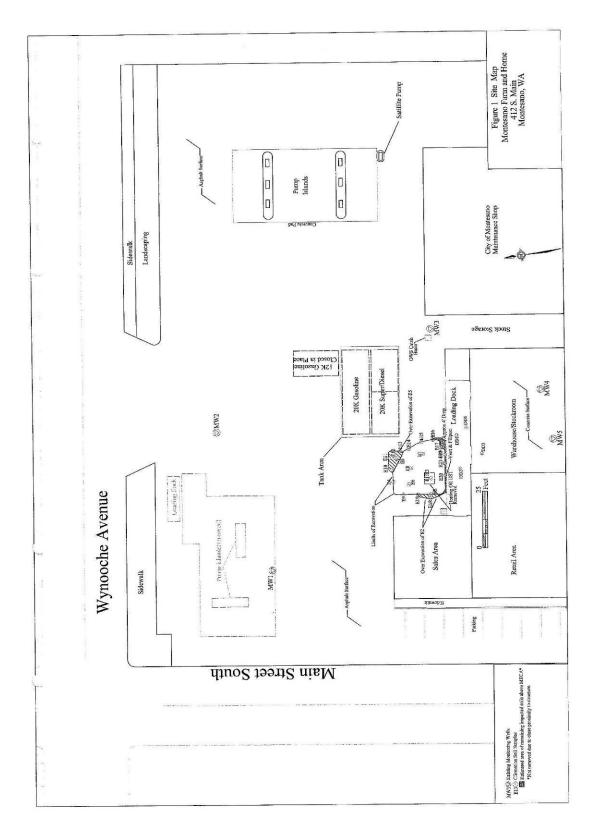
Ecology. Site Visit. June 16, 2011.

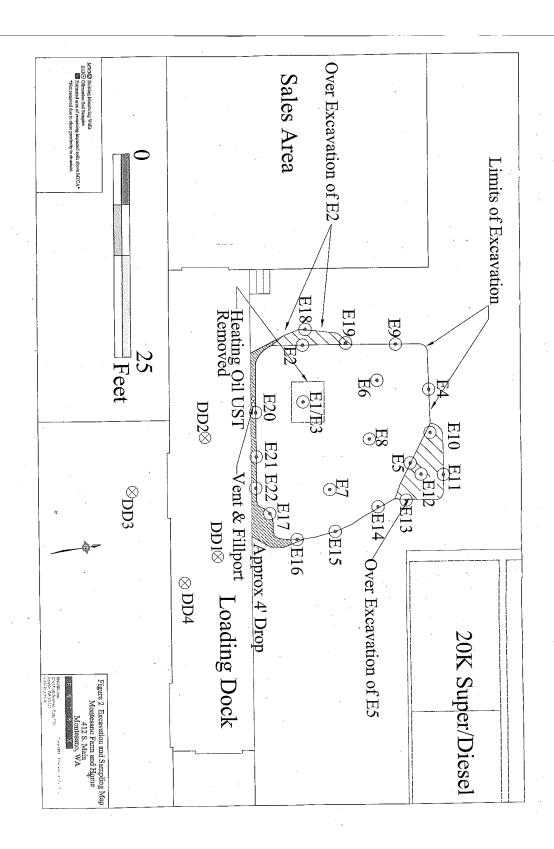
6.0 APPENDICES

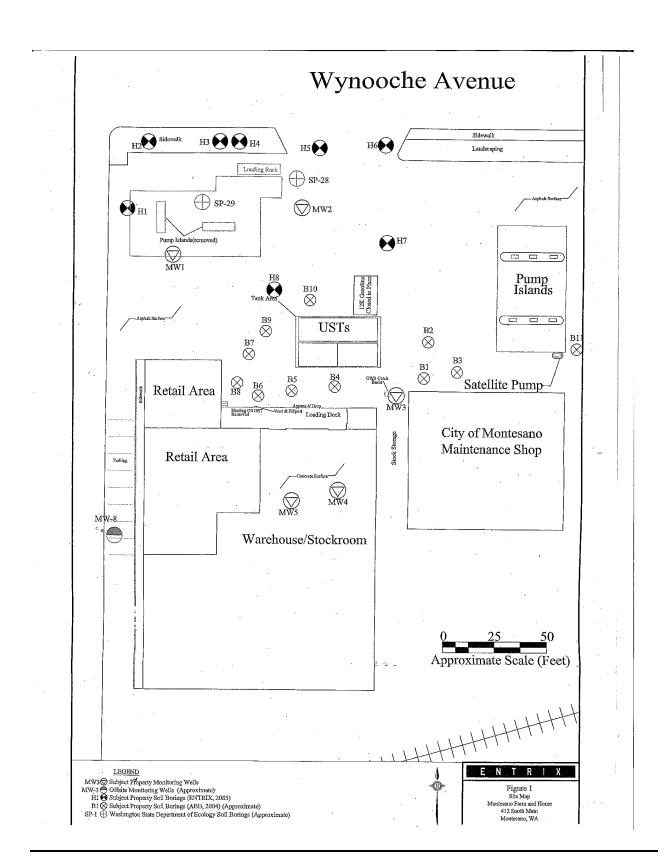
6.1 Vicinity Map



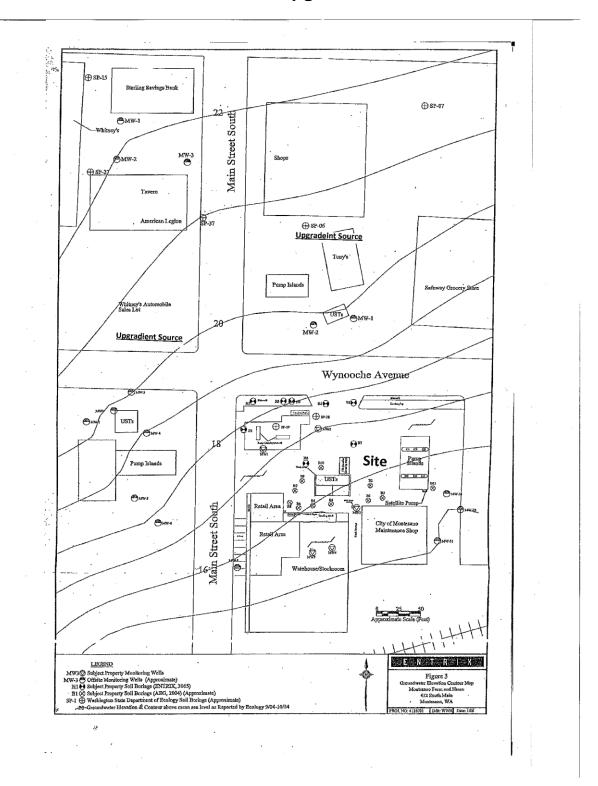
6.2 Site Plan and Sampling Locations







6.3 Water Level Contours and Upgradient Sources



6.4 Soil Sample Results

Table 1. Summary of Analytical Results for Excavation Soil Samples

Montesano Farm & Home-Heating Oil Tank Removal

Sample	Sample ⁴ Depth (ft)	Date		BTEX ²	(mg/kg)		Diesel ³
Number ¹	Sample Depth (ft)	Analyzed	В	T	Е	X	(mg/kg)
E1	. 14	7/11/05					2,960
E2	11	7/12/05	ND	ND	ND	ND	2,620
E3	16	7/12/05	ND	ND	ND	ND	ND
E4	· 11	7/13/05	ND	ND	ND	ND	ΝD
Ë5	8.5	7/13/05	ND	ND	ND	0.25	12,100
E5 (FD)	8.5	7/13/05	ND.	ND.	ND	1.15	
E6	16	7/16/05			-		ND
E 7	17	7/16/05		·			ND
E8	15	7/16/05					ND
E9	12	7/16/05		-			ND
E10	12	7/16/05					ND
E11	11	7/16/05			-		ND
E12	14	7/16/05					ND
E13	10	7/16/05					ND
E14	10	7/16/05					1,280
E15	11	7/16/05					990
E16	13	7/16/05					2,240
E17	11	7/16/05					ND
E18	11	7/16/05					ND
E19	9	7/16/05					ND
E20	· 11	7/16/05					. ND
E21	10	7/16/05					ND
E22	13	7/16/05				·	3,930
MDL			0.02	0.05	0.05	0.05	20
Method A			0.03	7	6	9	2000

Notes

mg/kg - milligrams per kilogram

nd = not detected above MDL

MDL = Laboratory Method Detection Limits

Bold indicates the detected concentration exceeds the MTCA Method-A Cleanup Levels

FD = Field Duplicate

¹Approximate sample location is shown in Figure 2 Excavation and Sampling Map

²Analyzed by EPA Method 8021B. B=benzene, T=toluene, E=ethybenzene, X=xylenes

³Analyzed by NWTPH-Dx

⁴Sample depths are approximate

Table 2.1 Summary of Soil Analytical Results Montesano Farm & Home 412 Main Street, South, Montesano, WA

Samnle Number ¹	Sample	Date		BTEX ² (mg/kg)	(mg/kg)		Diesel³	Oil³	Mineral Oil ³	Gasoline ²
	Depth (ft)	Analyzed	В	L	B	X	mg/kg	mg/kg	mg/kg	mg/kg
B1-6	9	1/22/04	0.12	1.70	4.90	6.10	pu	pu	pu	pu
B1-10	10	1/22/04	0.10	0.12	nd	0.38	-	-		nd
B2-6	9	1/26/04					рu	pu	pu	pu
B4-8	8	1/1/04	-	-	-	-	pu	pu	pu	27
B5-7	7	1/22/04	рu	pu	pu	pu	480	pu	pu	pu
B5-11	11	1/22/04	pu	pu	nd .	pu	2300			pu
B6-5	5	1/22/04	pu	pu	nd	9.60	14000			pu
B6-11	11	1/22/04	pu	pu '	nd	nd	470	nd	pu	nd
B8-11	11	1/22/04	pu	pu	nd	nd	***	-	1	nd
MDL			0.02	0.05	0.05	0.05	20	40	40	10
Method A			0.03	7	9	6	2,000	2,000	4,000	100

¹Approximate sample location is shown in figure 1

²Analyzed by EPA 8260 or 8021B. B=benzene, T=toluene, E=ethybenzene, X=xylenes

 3 Analyzed by Washington State Department of Ecology method NWTPH-Dx/Dx mg/kg - milligrams per kilogram -- = not applicable due to ND results for HCID

nd = not detected

 $MDL = Method detection limits \\ Bold indicates the detected concentration exceeds the MTCA Method-A levels Shading indicates the sample was obtained during the current reporting period$



Table 2. Summary of Analytical Results for Strataprobe Soil Samples
Montesano Farm & Home-Heating Oil Tank Removal

Sample Number ¹	Sample ² Depth (ft)	Date Analyzed	Diesel ³ (mg/kg)
DD1-12	12	9/1/05	nd
DD1-15	15	9/1/05	175
DD1-19	19	9/2/05	260
DD2-12	12	9/3/05	nd
DD2-16	16	9/4/05	2,280
DD2-18	18	9/5/05	nd
DD3-12.5	12.5	9/6/05	nd -
DD3-15	15	9/7/05	nd
DD3-16	16	9/8/05	nd
DD4-12	12	9/9/05	nd
DD4-15	15/16	9/10/05	nd
MDL			20
Method A			2000

Notes:

mg/kg - milligrams per kilogram

nd = not detected

MDL = Laboratory Method Detection Limits

Bold indicates the detected concentration exceeds the MTCA Method-A Cleanup Levels

Table 3. Summary of Analytical Results for Excavation Soil Samples

Montesano Farm & Home-Heating Oil Tank Removal

Sample	Sample	Date		BTEX ²	(mg/kg)		Gasoline ³
Number ¹	Depth (ft)	Analyzed	В	T	Ė	Х	(mg/kg)
E5-FD	14	7/13/05	nd	nd	nd	1.15	nd
MDL			0.02	0.05	0.05	0.05	10
Method A			0.03	7	6	9	30

<u>Notes</u>

Sample depths are approximate

mg/kg - milligrams per kilogram

nd = not detected above MDL

MDL = Laboratory Method Detection Limits

Bold indicates the detected concentration exceeds the MTCA Method-A Cleanup Levels

¹Approximate sample location is shown in Figure 2 Excavation and Sampling Map

²Sample depths are approximate (from the top of loading dock approximately 3ft above surface grade)

³Analyzed by NWTPH-Dx

¹Approximate sample location is shown in Figure 2 Excavation and Sampling Map

²Analyzed by EPA Method 8021B. B=benzene, T=toluene, E=ethybenzene, X=xylenes

³Gasoline Range Petroleum Hydrocarbons Analyzed by NWTPH-Gx

Table 4-3. Summary of VOC Results for August 29, 2005 Soil Probe Samples
Montesano Farm & Home

		MTCA Method-A	Samp	le Number - De	oth (ft) ^{1,3}
Analyte ²	Units	Cleanup Levels	H3-15	H5-12.5	H8-12
Chloromethane	ug/kg	NA	<7.7	<1.4	<1.1
Bromomethane Vinyl chloride	ug/kg ug/kg	NA NA	<7.7 <7.7	<1.4	· <1.1
Chloroethane	ug/kg ug/kg	NA NA	<7.7	<1.4	<1.1
Methylene chloride	ug/kg	20	<15	<2.8	2.2
Acetone	ug/kg	NE	· 40	8.4	50
Carbon disulfide	ug/kg	NA NA	<7.7	<1.4	<1.1
1,1,-Dichloroethene 1,1-Dichloroethane	ug/kg ug/kg	NA NA	<7.7 <7.7	<1.4 <1.4	<1.1 <1.1
trans-1,2-Dichloroethene	ug/kg	NA NA	<7.7	<1.4	<1.1
cis-1,2-Dichloroethene	ug/kg	NE	<7.7	<1.4	<1.1
Chloroform	ug/kg	NA	<7.7	<1.4	<1.1
1,2-Dichloroethane 2-Butanone	ug/kg ug/ka	NA NA	<7.7	<1.4	<1.1
1,1,1-Trichloroethane	ug/kg ug/kg	30	<38 <7.7	<6.9 <1.4	8.4 <1.1
Carbon tetrachloride	ug/kg	NA NA	<7.7	<1.4	<1.1
Vinyl acetate	ug/kg	NE NE	<38	<6.9	<5.5
Bromodichloromethane	ug/kg	NA	<7.7	<1.4	<1.1
1,2-Dichloropropane	ug/kg	. NA	<7.7	<1.4	<1.1
cis-1,3-Dichloropropene Trichloroethene	ug/kg ug/kg	NA NA	<7.7	<1.4	<1.1
Dibromochloromethane	ug/kg ug/kg	NA NA	<7.7 <7.7	<1,4 <1,4	<1.1 <1.1
1,1,2-Trichloroethane	ug/kg	NA NA	<7.7	<1.4	<1.1
Benzene	ug/kg	30	25	<1.4	18
rans-1,3-Dichloropropene	ug/kg	NA	<7.7	<1.4	<1.1
2-Chloroethylvinylether	ug/kg	NA NA	<38	<6,9	<5.5
Bromoform 4-Methyl-2-Pentanone	ug/kg ug/kg	NA NA	<7.7 <38	<1.4	<1.1
2-Hexanone	ug/kg	NA NA	<38	<6.9 <6.9	<5.5 <5.5
Tetrachloroethene	ug/kg	50	<7.7	<1.4	<1.1
1,1,2,2-Tetrachloroethane	ug/kg	NA NA	<7.7	<1.4	<1.1
Toluene	ug/kg	7,000	190	<1.4	3.2
Chlorobenzene Ethylbenzene	ug/kg	NA NA	<7.7	<1.4	<1.1
Styrene	ug/kg ug/kg	6,000 NA	75 <7.7	<1.4 <1.4	6 <1.1
Frichlorofluoromethane	ug/kg	NA NA	<7.7	<1.4	<1.1
1,1,2-Trichloro-1,2,2-trifluoroe	ug/kg	NA	<15	<2.8	<2.2
n,p-Xylene*	ug/kg	NE NE	270	<1.4	12
p-Xylene*	ug/kg	NE	100	<1.4	1.2
,2,-Dichlorobenzene	ug/kg	NA NA	<7.7 <7.7	<1.4	<1.1
,4-Dichlorobenzene	ug/kg ug/kg	NA NA	<7.7	<1.4 <1.4	<1.1 <1.1
Acrolein	ug/kg	NA NA	<380	<69	<55
Methyl lodine	ug/kg	NA	<7.7	<1.4	<1.1
Bromethane	ug/kg	NA NA	<15	<2.8	<2.2
Acrylonitrile ,1-Dichloropropene	ug/kg	NA NA	<38	<6.9	<5.5
Dibromethane	ug/kg ug/kg	NA NA	<7.7 <7.7	<1.4 <1.4	<1.1 <1.1
,1,1,2-Tetrachloroethane	ug/kg	NA NA	<7.7	<1.4	<1.1
,2-Dibromo-3-chloropropane	ug/kg	NA NA	<38	<6.9	<5.5
,2,3-Trichloropropane	ug/kg	NA	<15	<2.8	<2.2
rans-1,4-Dichloro-2-butene	ug/kg	NA NA	<38	<6,9	<5,5
,3,5-Trimethylbenzene ,2,4-Trimethlylbenzene	ug/kg	NA NE	36	<1.4	<1.1
lexachlorobutadiene	ug/kg ug/kg	NA NA	130 <38	<1.4 <6.9	2 <5.5
thylene Dibromide	ug/kg	NA NA	<7.7	<1.4	<1.1
romochloromethane	ug/kg	NA	<7.7	<1.4	<1.1
,2-Dichloropropane	ug/kg	NA	<7.7	<1.4	<1.1
,3-Dichloropropane	ug/kg	NA NA	<7.7	<1.4	<1.1
sopropylbenzene -Propylbenzene	ug/kg ug/kg	NA NE	<7.7 8.1	<1.4 <1.4	<1.1 <1.1
romobenzene	ug/kg ug/kg	NA NA	8.1 <7.7	<1.4	<1.1 <1.1
-Chlorotoulene	ug/kg	NA T	<7.7	<1.4	<1.1
-Chlorotoulene	ug/kg	NA	<7.7	<1.4	<1.1
ert-Butylbenzene	ug/kg	NA	<7.7	<1.4	<1.1
ec-Butylbenzene -Isopropyltoluene	ug/kg	NA	<7.7	<1.4	<1.1
	ug/kg	NA NA	<7.7 <7.7	<1.4 <1.4	<1.1 <1.1
-Butvlbenzene					
-Butylbenzene	ug/kg ug/kg				
-Butylbenzene ,2,4-Trichlorobenzene laphthalene	ug/kg ug/kg	NA 5,000	<38 <38	<6.9 <6.9	<5,5 <5.5

Notes:
Approximate sample location is shown in Site Map 2 Boring Location Map
Analyzed by 8260B
Sample depths are approximate
Bold indicates the detected concentration exceeds the MTCA Method-A levels

6.5 Groundwater Sample Results

Table 4-4. Summary of GRPH Analytical Results for Groundwater Probe Samples Montesano Farm & Home

Sample Number ¹	Date Analyzed	Gx ² (ug/L)
H1	9/1/05	< 250
H2	9/1/05	< 250
Н3	9/1/05	250,000
H4	9/1/05	180,000
H5	9/1/05	< 500
H6	9/1/05	2,500
H7	9/1/05	< 250
H8	9/2/05	21,000
MDL		20
Method A		800

Notes:

mg/kg - milligrams per kilogram

nd = not detected

MDL = Method detection limits

Bold indicates the detected concentration exceeds the MTCA Method-A levels

Table 4-5. Summary of BTEX Results for August 29, 2005 Groundwater Probe Samples

Montesano Farm & Home

		BTEX ¹ (µg/L)							
Sample Number - Depth (ft) ²	Date Analyzed	В	т	E	m,p- Xylene	o-Xylene			
H1	9/6/05	<0.2	<0.2	<0.2	<0.4	<0.2			
H2	9/6/05	<0.2	<0.2	<0.2	<0.4	<0.2			
. Н3 .	9/6/05	27,000	52,000	6,700	24,000	9,200			
H4 .	9/6/05	2,300	17,000	7,800	28,000	10,000			
. H5	9/6/05	660	<5.0	51	<5.0	<5.0			
H6	9/6/05	13,000	<100	310	<100	<100			
H7	9/6/05	<0.2	<0.2	<0.2	<0.4	<0.2			
H8 .	9/6/05	6,700	2,100	1,300	2,600	780			
Method A		5	1000	700	Total Xyl	enes 1000			

Notes:

μg/L - micrograms per liter

nd = not detected .

Bold indicates the detected concentration exceeds the MTCA Method-A levels

¹Approximate sample location is shown in Site Map

²Analyzed by NWTPH-Gx

³Sample depths are approximate

¹Analyzed by EPA Method 8260B

²Sample depths are approximate

Table 2.2 Summary of Groundwater Analytical Results Montesano Farm and Home Montesano, Washington

Sample Number ¹	Date		BTEX	BTEX ² (µg/l)		Gasoline2.	Diesel ³	Heavy Oil ³	Heavy Oil ³ Mineral Oil ³
		В	$\mathbf{L} \sim \mathbf{L}$	E	X	(l/gn)	(hg/l)	(l/gn)	(l/gn)
B2-H ₂ O	1/22/04	2400	4.8	pu	71	5,400	-	-	
B2-H2O Duplicate	1/22/04	2400	ри	pu	99	5,400	1	1	1
B6-H ₂ O	1/22/04	5.3	pu	pu	pu	pu	650,000	pu	pu
MDL						100	500	200	200
Method A		\$	1,000	700	1,000	800	500	200	200

Approximate samplel locations are shown in figure 1

²Analyzed by EPA 8240 or 8260B. B=benzene, T=toluene, E=ethybenzene, X=xylenes ³Analyzed by Washingon State Department of Ecology method NWTPH-G

mg/kg = milligrams per kilogram

 $\mu g/l = micrograms$ per liter ND = not detected

-- Not Analyzed or not applicable

MDL = Method detection limits

Associated Environmental Group, LLC

Montesano Phase II Analyticals Phase II Water

Table 4-7. Summary of Analytical Results for Groundwater Monitoring Well Samples

Montesano Farm & Home

		ľ	vontesano	1 all it Carr	-	Charles and Charles and Control of the Control of t	S. v announced a Newson and Sounds
Monitoring	Sample		and the second second second	(µg/L)		Gasoline ²	Source
Well	Date	В	T	E	Х	(µg/L)	
MW1	10/23/03	nd	nd	nd	nd	· nd	1
MW1	1/13/04	nd	ind	nd	nd	nd	1
MW1	4/23/04	nd	nd	nd	nd	nd	1
MW1	9/8/04	nd	nd	nd	nd .	nd	1
MW1	10/04	5.1	nd	1.3	9.6	110	2
MW1	3/05	<10*	nd	91	300	2200	. 2
MW1	8/31/05	94	81	160	550	1610	3
MW2	10/23/03	nď	nd	nd	nd ·	nd	. 1
MW2	1/13/04	1000	6.9	nd	170	2700	1
MW2	4/23/04	362	nd	57	49	2280	1
MW2	9/8/04	130	58	73	596	3700	1
MW2	10/04	54	nd	nd	nd	nd	2
MW2	3/05	140	nd	15	. nd .	170	2
MW2	8/31/05	92	<1.0	5.5	3.4	343	3
MW3	10/23/03	1,6	nd	2.2	6	150	11
MW3	1/13/04	3.3	nd	nd	nd	270	1
MW3	4/23/04	3	nd	nd	1.3	nd	, 1
MW3	9/8/04	25	4,9	2.4	. 27	. 291	1
	10/04	nd	nd	∕nd ·	nd	nd	2
EWM	3/05	nd	nd	nd	nd	nd	2
MW3	8/31/05	2.1	<0.2	<0.2	<0.4	. nd	3
MW3		<0.2	<0.2	<0.2	<0.4	nd	-3
MW4	8/31/05	<0.2	<0.2	<0.2	<0.4	nd	3
MW5	. 8/31/05		ne kon esekite engan jakan kontra	700	1000	800	
Method A		5	1000	700	1000	000	

Notes:

¹Analyzed by EPA method 8260B

²Analyzed by method NWTPH-Gx

µg/L = micrograms per liter

nd = not detected

MDL = Laboratory Method detection limits

Source: 1) AEG Groundwater Monitoring Report Conducted on MFH, September 15, 2004.

2) Ecology, 3) Entrix

Bold indicates the detected concentration exceeds the MTCA Method-A Cleanup Levels

6.6 **Restrictive Covenant**

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Montesano Farm & Home 412 South Main Street Montesano, WA 98563

ATTACHMENT A

RESTRICTIVE COVENANT

This declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f and g), and WAC 173-340-440 in the name of the Property Owner, its successors and assigns, and the Washington State Department of Ecology, its successors and assigns.

Logal Description: MACE TALBERT MAGILLS LOTS 1 - 5 INC BLK 1

Tax Parcel I.D. #: 075300100100

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RESTRICTIVE COVENANT

Owner and Operator: Montesano Farm & Home

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Montesano Farm & Home, its 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:

- Underground Storage Tank Characterization Report, AA Enviro Assessment, Inc., March 1999;
- Site Characterization Report, Associated Environmental Group, LLC (AEG), November 2003.
- Sits Characterization Report, AEG, February 2004;
- Groundwater Monitoring Report, AEG, September 2004;
- Work Plan, Phase III Site Remediation, AEG, October 2004
- UST Removal and Remediation Report, Entrix, Inc., November 2005
- Groundwater Monitoring Report, Entrix, Inc., December 2005

These documents are on file at Ecology's SWRO.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of diesel range petroleum hydrocarbons which exceed the Model Toxics Control Act Method A Residential Cleanup Levels for Soil (located below the north face of the loading dock), and gasoline range petroleum hydrocarbons which exceed the Model Toxics Control Act Method A Residential Cleanup levels for soils and groundwater, established under WAC 173-340-740 and WAC 173-340-720, respectively.

The undersigned, Montesano Farm & Home, is the fee owner of real property (hereafter "Property") in the County of Grays Harbor, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described in attachment A of this restrictive covenant and is made a part hereof by reference.

Montesano Farm & Home 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 claiming under them, including all current and future owners of any portion of or interest in the Property (he eafter "Owner").

Section 1.

No groundwater may be taken for domestic, agricultural, or any other use from the

Property."

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MONTE FARM AND HOME

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- A portion of the Property contains diesel Range petroleum hydrocarbon contaminated 2. soil located beneath the loading dock on the north side of the building. A portion of the Property contains gasoline range petroleum hydrocarbon contaminated soil and groundwater beneath the paved parking area north of the building. The Owner shall not alter, modify, or remove existing structures in any manner that may result in the release or exposure to the environment of that contaminated soil and groundwater or create a new exposure pathway without prior written approval from Ecology.
- Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, buildozing 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 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.



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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.

For Montesano Farm & Home

Date

NOTE: The Property Owner must have this Restrictive Covenant notarized prior to returning the original to Ecology. A copy of this Restrictive Covenant shall be filed with the County Assessor in the applicable county and proof of filing provided to Ecology.

6.7 Photo log

Photo 1: Front of Store – from the north



Photo 2: UST System East of Store – from the southwest







