

Former Zur Hausen Orchards

**Ecology Identifier 5449470
50 29th Street NW
East Wenatchee, Washington 98802**

January 7, 2008

Prepared for:

Bonaventure Senior Living
Formerly Mountain West Senior Housing, LLC
3220 State Street, Suite 200
Salem, Oregon 97301

Prepared by:

V Environmental LLC
PO Box 13513
Des Moines, Washington 98198

Prepared by:



Verna Lee Curry, MS ES
Environmental Scientist



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1.0 INTRODUCTION

In August 2005, V Environmental LLC contracted with Bonaventure Senior Living/formerly Mountain West Senior Housing (Bonaventure/formerly Mountain West) to conduct a Phase One Environmental Site Assessment (ESA) for real property sited on the southwest corner of the intersection of 29th Street NW and State Highway 2 (Sunset Highway) in East Wenatchee, Washington (Property). According to the Phase One ESA, the Property comprised approximately nine acres of commercial orchards and had been cultivated with commercial fruit orchards for at least 40 years. The Phase One ESA concluded the following:

V Environmental has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of Parcel #40600005501 located near the corner of 29th Street NW and Sunset Highway North in East Wenatchee, Washington, the property. This assessment has revealed three RECs (Recognized Environmental Conditions) in connection with the property: the diesel AST (above-ground storage tank), the rinse/mix area near the shed, and orchard soils which may contain residual pesticides, herbicides and rodenticides historically associated with commercial orchards.

In September 2005, as a result of the findings of the Phase One ESA, V Environmental conducted a limited subsurface soil assessment by collecting soil samples from the Property in those areas defined as RECs in the Phase One ESA. V Environmental discussed the sampling plan with Mr. Norm Heppner, formerly a project manager for the Washington State Department of Ecology (WDOE). A V Environmental scientist collected one soil sample near the dispensing hose for the AST (on the northeast corner of the Property), one soil sample from the rinse/mix area near the shed (on the northeast corner of the Property), and eight soil samples within the orchard and submitted them for laboratory analysis for lead, arsenic, organochlorides. V Environmental, with Mr. Heppner's approval, requested the laboratory to composite the orchard samples into two samples for analysis. Although some traces of DDT/DDE (0.049 milligram/kilogram (mg/kg), 0.136 mg/kg, and 0.140 mg/kg) were detected during the laboratory analysis in orchard soils, the concentrations were below current Model Toxic Cleanup Act (MTCA) Method B Cleanup Levels (3 mg/kg). Diesel was not detected in site soils near the AST. Arsenic was detected in the two orchard composite samples at 80 mg/kg and 84 mg/kg, concentrations greater than current Model Toxic Cleanup Act (MTCA) Method A Cleanup Levels for Unrestricted Use (20 mg/kg). Lead was detected in the soil sample collected from the rinse/mix area (5.1 mg/kg) and in the orchard soil (24.4 mg/kg and 19.6 mg/kg), which is less than current MTCA Method A Cleanup Levels for Unrestricted Use (250 mg/kg). Based on laboratory analytical data, V Environmental determined that arsenic was the primary contaminant present in site soils.

1.1 PROJECT OBJECTIVES

Project objectives for the Property were to reduce or eliminate the potential for direct contact with arsenic and receive a No Further Action determination with restrictive covenant from the WDOE.

1.2 SCOPE OF WORK

The scope of work for this investigation was developed through discussions with Mr. Jeff Newschwander, WDOE and Mr. Daniel Sosnovske, Mr. Ben Settecase, Mr. Steve Black, Mr. Bob Beatty and Mr. Paul Glaunert of Bonaventure Senior Living/formerly Mountain West Senior Housing. Work on the project included the general following tasks that were developed in 2007 and implemented during the construction and post-construction phase of this project:

- Collect and submit soil samples in such a manner as to determine the potential for direct contact exposure to orchard soils and submit the soil samples for laboratory analysis for arsenic and lead;

- Establish a plan to restrict or eliminate potential direct contact with arsenic-containing soils; and
- Prepare this report.

A detailed description of VE field procedures is presented In Appendix C, Standard Project Methods and Practices.

2.0 SITE CHARACTERISTICS

The subject site comprises approximately nine acres of land that has historically been cultivated with commercial fruit orchards. The orchards were removed from the site in 2007. No stained soils or distressed vegetation were observed on the site during the initial site reconnaissance, during the limited subsurface investigation or reported during the construction phase of the senior living facility. No surface water was observed on site during the site reconnaissance, limited subsurface investigation or reported during the construction process.

2.1 TOPOGRAPHY

The Property initially sloped moderately from Sunset Highway toward the west. During the initial stages of excavation for the future senior living facility and after removing the fruit trees, Bonaventure/formerly Mountain West graded the site so that it now has a very gentle slope that trends from the northeast to the northwest. To achieve the desired grade, the northeast corner of the Property was excavated approximately 25 feet below the initial orchard grade and the southwest and northwest corners were backfilled to create the current topography.

2.2 SURFACE HYDROLOGY

The site is located on a west-facing slope approximately 200 feet above and approximately one-half mile west of the Columbia River. No surface water bodies were observed on the subject site or the immediate vicinity. Post construction activities of the current facilities, excess surface water is expected to either percolate into site soils or discharge into storm drains sited in the driveway that bisects the Property.

2.3 GEOLOGY AND GROUNDWATER HYDROLOGY

The subject site and surrounding area are located on the east bank of the Columbia River near the convergence of the Cascade Mountain Range and the Columbia Basin. The geology in this region is referred to as channeled scablands and is the result of a long series of basalt flows followed by a series of massive floods from glacial Lake Missoula. The region is underlain by the Miocene Columbia River Basalt Group. Much of the upper bank along the Columbia River consists of exposed basalt lava flows of the Columbia Plateau; but where the bank slope is reduced, as it is in the East Wenatchee region, deep soils and glacial sediments cover much of the basalt. Review of *Washington Geologic Maps* (Schuster 2002) indicates that the site soils (primarily Quincy, Argabak Rock Outcrop, and Burch series) are located on uplands, fan piedmonts, and terraces. The soils are formed in sands from mixed sources, but typically contain significant amounts of dark-colored basaltic sand. Groundwater was not encountered during any soil sampling events or reported during construction and/or excavation.

Additionally, V Environmental reviewed the well logs obtained from the Washington State Department of Ecology website. Two wells sited on the southwest corner of 29th Street NW and Sunset Highway were advanced to depths of 30 feet and 40 feet. No groundwater was reported to have been encountered during construction activities.

3.0 INVESTIGATION METHODS

This section provides a summary of project field methods and observations made during the subsurface investigation of the Site. Additional detail on general project methodologies is provided in Appendix C.

3.1 FIELD METHODS AND OBSERVATIONS

The Property is currently occupied by one large multi-story structure and detached cottages designed as a senior living/assisted living facility. An asphalt-paved driveway bisects the Property to provide access to covered parking for residents as well as access to the cottages. One large parking area is present on the north side of the large structure near the main entrance. A smaller courtyard and service entrance is present on the south side of the structure. Approximately 90 percent of the Property is covered with asphalt (driveway or parking), concrete sidewalks and entryways or with structures. The remaining ten percent of the Property is landscaped with sod and low-growing shrubs.

In the spring of 2007, Bonaventure/formerly Mountain West cleared the fruit trees from the Property. To meet design standards for the senior living facility, the Property needed to be graded to a relatively consistent grade across the site. To achieve that grade, Bonaventure/formerly Mountain West lowered the grade of the northeast corner of the Property approximately 25 feet and raised the southwest corner of the Property approximately six feet. Areas excavated and backfilled are indicated on Figure 2, Site Plan.

Bonaventure/formerly Mountain West managed former orchard soils on site by creating two repository stockpiles (estimated at 700 cubic feet). One large stockpile comprised surface soils as well as excavated soils generated during the grading activities to bring the northeast corner of the Property to grade. A second stockpile was created that comprised soils generated during the excavation of a deep sewer trench on the north and east side of Property near 29th Street NW. These two stockpiles were more than 150 feet apart and were considered topographically cross-gradient relative to each other. Other smaller stockpiles that were created as utilities were installed, foundations poured and other fittings placed in the ground were kept separate from the two larger stockpiles. No groundwater was encountered during excavation activities.

Between June and October 2007 during grading activities, Forsgren Associates (Forsgren) collected four soil samples from each repository stockpile and submitted them for laboratory analysis at Anatek Labs, Inc. in Moscow, Idaho. This sampling, which was directed by Bonaventure/formerly Mountain West, was not conducted as part of a sampling plan but was used by Bonaventure/formerly Mountain West to determine the future placement of these soils.

In May 2008, Bonaventure/formerly Mountain West contracted with V Environmental to complete the soil sampling plan and prepare a report for WDOE. Between May 2008 and October 2008, Forsgren collected 15 additional soil samples from the Property from those areas that would be landscaped and that had the potential for future direct contact exposure to soils. Property buildings had been constructed at this time and the driveway and parking areas paved. The soil samples were submitted to Libby Environmental for laboratory analysis for arsenic and lead. Soil sample locations are identified by red dots on Figure 2, Site Plan.

3.2 LABORATORY ANALYSIS

Selected soil samples collected from stockpiled soils and from future landscaped areas were submitted under chain-of-custody protocol to Anatek Labs, Inc in Moscow, Idaho and Libby Environmental in Olympia, Washington for chemical analysis. A total of eight soil samples were submitted to Anatek Labs, Inc. and a total of 17 soil samples were submitted to Libby Environmental selected for analysis for the presence of arsenic and lead. Two soil samples (07-050508 and 08-050508) were mistakenly collected from the Washington State Department of Transportation easement for Highway 2 and

submitted for laboratory analytical but are not included in the discussion since they are not sited on the Property.

- Laboratory analyses of soil samples identified as 62207-1, 62207-2, 01-062907, and 02-062907 (stockpiled soils excavated from the northeast corner of the Property and from surface soils across the site) indicated the presence of arsenic at concentrations ranging from 48.6 mg/kg to 64.0 mg/kg, which is greater than the current MTCA Method A Cleanup Level (20 mg/kg). Lead was detected in one soil sample at a concentration of 355 mg/kg, which is greater than current MTCA Method A Cleanup Level for Unrestricted Use (250 mg/kg). Laboratory analytical results indicated the presence of lead in the other three samples at concentrations ranging from 60.1 mg/kg to 186 mg/kg, concentrations below the current MTCA Method A Cleanup Level for lead. This stockpile area is indicated by a yellow circle on Figure 2, Site Plan and identified as the "contaminated" stockpile.
- Laboratory analytical results of soil samples identified as 01-071807, 02-071807, 01-100907, and 02-100907 (stockpiles soils excavated from the deep sewer trench) indicated the presence of arsenic in concentration ranging from 2.49 mg/kg to 5.02 mg/kg, which is below the current MTCA Method A Cleanup Level for Unrestricted Use (20 mg/kg). Lead was detected in these soils at concentrations ranging from 3.48 mg/kg to 11.4 mg/kg, which is also below the current MTCA Method A Cleanup Level for Unrestricted Use (250 mg/kg). These soils were placed in a second stockpile as indicated by a yellow circle on Figure 2, Site Plan in the northwest corner of the Property and identified as the "clean" stockpile.
- Laboratory analytical results for the soil samples collected from the future landscaped areas indicate the presence of lead in concentrations ranging from less than 5.0 mg/kg to 95.2 mg/kg, which is less than the current MTCA Method A Cleanup Level for lead (250 mg/kg). Arsenic was detected in site soils in concentrations ranging from less than 5.0 mg/kg to 50 mg/kg, with three areas identified as containing arsenic in soils in concentrations greater than the current MTCA Method A Cleanup Level for Unrestricted Use (20 mg/kg) (see Figure 2).

The three identified to-be-landscaped areas with elevated concentrations of arsenic included the following: on the southwest corner of the primary structure between the site structure and the access road (04-050508 (30 mg/kg)); on 29th Street NW on the west side of the main entrance ((01-051408 (50 mg/kg)) and in the east side of the courtyard near the south entrance to the building (06-050508 (32 mg/kg arsenic)). No other areas of soils containing elevated concentrations of arsenic were identified by laboratory analysis. Complete laboratory analytical reports for all sampling events are presented in Appendix A.

- Laboratory analytical results provided by Bonaventure/Mountain West indicate that arsenic and lead were not detected in the imported soils that were used for the clean cap.

4.0 REMEDIATION

V Environmental's initial conversations with WDOE were conducted with Mr. Norm Heppner, who is no longer with WDOE. Subsequent conversations were conducted with Mr. Jeff Newschwander. Per Mr. Heppner as well as with Mr. Newschwander, WDOE required a clean cap of soil be placed atop any site soils containing arsenic or lead in concentrations greater than current MTCA Method A Cleanup Levels for Unrestricted Use in order for WDOE to consider issuing a No Further Action (NFA) Determination letter for the Property. During the most recent conversation on September 16, 2008, Mr. Newschwander repeated the requirement for the six-inch clean cap placement. This was in response to a request proffered by Mr. Paul Glaunert, Bonaventure/formerly Mountain West Project Manager, for WDOE to consider the implementation of an Operation and Maintenance Plan in lieu of the clean cap.

In order to meet the project objectives, Bonaventure/formerly Mountain West applied the following remedial techniques to the arsenic-containing soils on the Property.

- The “contaminated” soil stockpile was managed in two ways. A portion of the stockpile was buried in a deep sewer trench located on the north side of the Property along 29th Street NW and covered with at least six-inches of clean soil overlaid by a three-inch layer of sod. The remaining soils were placed underneath the large asphalt-paved future parking lot on the north side of the Property structure. No groundwater was encountered during excavation activities and, based on depth to groundwater estimated to range between 30 and 40 feet below ground surface (well log information of nearby wells obtained from WDOE website), the buried arsenic-containing soils are not expected to be in contact with groundwater.
- Bonaventure/formerly Mountain West placed a six-inch layer of clean soil atop the three identified areas with elevated concentrations of arsenic in the surface soils. These areas are identified on Figure 2 by yellow-filled areas and include a small landscaped area on the northwest corner of the Property near the 29th Street NW entrance, a landscaped area on the southwest corner of the large Property structure, and in the landscaped area on east side of the south courtyard near the south entrance.

The total area on the Property that received a six-inch clean soil cap that totaled approximately 23,000 square feet. In order to insure that a full six-inch layer of clean soil was placed in these areas, Bonaventure/formerly Mountain West used the grade differential between the top of the sidewalks and the existing soil layer, which was at least eight inches, as a guide to depth as well as making frequent field observations to ensure consistent depth across the site. An estimated 450 cubic yards of clean fill was placed in these three areas and included the “clean” stockpiled soils and clean fill obtained from the Borrow Area Project in Entiat, Washington. Bonaventure/formerly Mountain West estimated that approximately 100 cubic yards of top soil was imported from the Borrow Area Project and the remaining cubic yardage was obtained from the “clean” stockpiled soils. Laboratory analyses of these imported soils indicate that arsenic and lead were not detected in the imported soils (see Table 1).

Sod, low-growing shrubs, trees and chipped bark were placed atop the clean cap to bring the grade up to the sidewalks and driveways.

- Bonaventure/formerly Mountain West also prepared an Operation and Maintenance Plan specific to the site that will remain onsite. The manual includes a discussion about the physical and chemical hazards of arsenic, work control plans and prescribed work practices to reduce or eliminate direct contact exposure to potential arsenic-containing soils and will be made available to site contractors, utility workers, residents and employees. A copy of the Operation and Maintenance Plan is presented in Appendix B.

CONCLUSIONS

In accordance with discussions with WDOE, we are requesting a No Further Action Determination for the Property. We believe the former Zur Hausen commercial orchard located at 50 29th Street NW is not a threat to human health or the environment based on the following remedial activities that have been applied at the Property:

- Approximately 90 percent of the Property is either paved with asphalt/concrete or covered with site structures.
- Former orchard soils were managed in place by incorporating the use of two repository stockpiles consisting of “contaminated” and “clean” stockpiles. These stockpiles were more than 150 feet apart

and were kept separate. Soil samples from these stockpiles were submitted for laboratory analysis and, based on the analytical results, were either buried or covered with impervious surfaces or were able to be used as clean fill. No soils were removed from the Property.

- No groundwater was encountered during excavation or construction activities. Additionally, well log data obtained from the WDOE website indicated groundwater to be at a depth ranging between 30 and 40 feet below ground surface. It is anticipated that there is a low potential for groundwater to come into contact with arsenic-containing soils.
- Backfilled areas (northwest and southwest corners) were backfilled with soils from the "clean" soil stockpile and topped with sod, decorative rock or low-growing shrubs.
- Fifteen soil samples were collected from to-be-landscaped areas after the site had been graded and the buildings constructed. The collected soil samples are considered representative of site surface soils.

Soils from the northwest and southwest corners were not sampled because they had been backfilled from the "clean" soil stockpile, which had already been sampled and determined to not contain arsenic or lead in concentrations greater than current MTCA Method A Cleanup Levels for Unrestricted Use.

Laboratory analyses of the 15 soil samples collected from the surface soils at the Property indicated only three areas contained arsenic in concentrations greater than current MTCA Method A Cleanup Level for Unrestricted Use. These areas of the Property have been overlaid with at least a six-inch clean soil cap and covered with sod or other landscaping materials (a total of at least eight inches was placed atop the sampled soils).

- Known contaminated soils are either buried in a deep sewer trench and capped with at least six inches of clean soils or placed underneath the asphalt-paved parking lot on the north side of the Property.
- Although laboratory analyses of the other open areas on the Property indicated that concentrations of arsenic and lead are below current MTCA Method A Cleanup Levels for Unrestricted Use, Bonaventure/formerly Mountain West placed at least two inches of top soil as well as two inches of sod atop these soils during landscaping activities to further eliminate the potential for direct contact exposure to former orchard soils.
- Additionally, Bonaventure/formerly Mountain West has prepared a site-specific Operation and Maintenance Plan that will be made available for future maintenance staff, in-house workers, contractors, vendors and residents.

STANDARD LIMITATIONS

The findings and conclusions documented in this report have been prepared for the specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. Bonaventure/formerly Mountain West conducted in-house environmental oversight during the construction phase of the senior living facility and determined soil placement based on previous discussions with V Environmental personnel, WDOE and on laboratory analytical results. Bonaventure/formerly Mountain West provided information regarding construction practices, location of stockpiled soils, and placement of identified contaminated soils to V Environmental, who relied on this data during the preparation of this report. V Environmental was contracted to conduct soil sampling on the Property subsequent to the construction of the site structures and prior to landscaping activities in order to characterize site surface soils.

50 29TH Street NW
E Wenatchee, Washington

Additionally, Bonaventure/formerly Mountain West provided photographs taken during construction-phase activities. A potential always remains for the presence of unknown, unidentified, or unforeseen subsurface contamination on portions of the property not sampled. No warranty, expressed or implied, is made. This report is for the exclusive use of Bonaventure Senior Living/formerly Mountain West Senior Housing and their representatives.

FIGURES

**SITE LOCATION MAP
SITE PLAN**

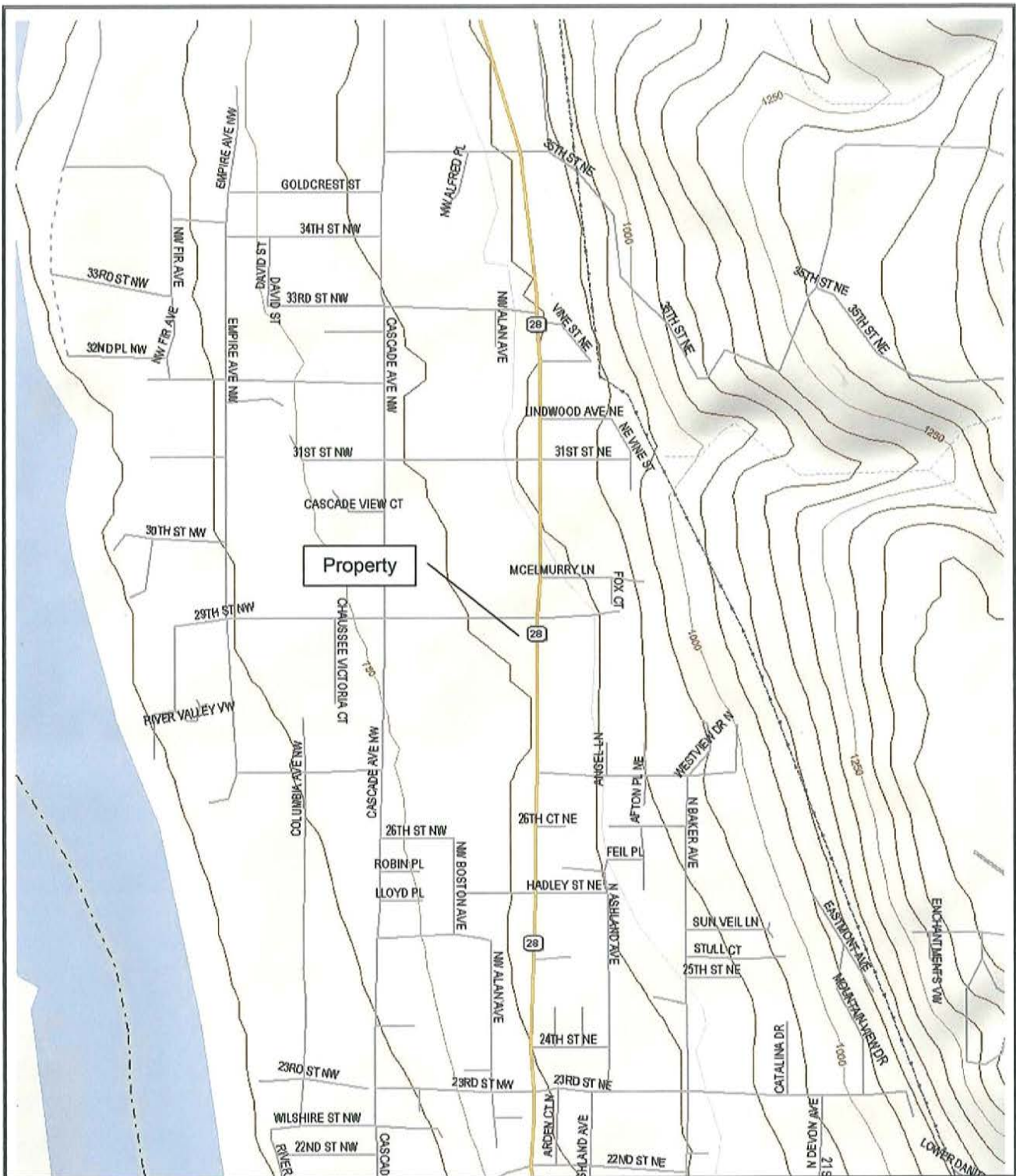


Figure 1. SITE LOCATION MAP

DRAWING NOT TO SCALE



**Site Name: Bonaventure/formerly Mountain West
50 29th Street NW
East Wenatchee, Washington**

Project Number: 214-1-2

VE Project Number: 214-1-2

TABLES

Table 1. Laboratory Analytical Results for Soil Samples

FUTURE LANDSCAPED AREAS			
Sample ID	Date Sampled	Lead	Arsenic
01-050508	5/5/2008	13.9	<5.0
02-050508	5/5/2008	15.9	6.0
03-050508	5/5/2008	79.4	8.0
04-050508	5/5/2008	137.0	30.0
05-050508	5/5/2008	<5.0	9.2
06-050508	5/5/2008	<5.5	32.0
07-050508	5/5/2008	26.0	6.0
01-050708	5/7/2008	22.6	<5.0
02-050708	5/7/2008	10.1	<5.0
03-050708	5/7/2008	5.7	<5.0
01-051408	5/14/2008	70.0	50.0
02-051408	5/14/2008	37.0	11.0
03-051408	5/14/2008	48.0	12.0
03-051408 dup	5/14/2008	43.0	11.0
01-073008	7/30/2008	24.0	5.6
02-073008	7/30/2008	7.0	<5.0
03-073008	7/30/2008	15.0	<5.0
03-073008 dup	7/30/2008	10.0	8.2
01-081308	8/13/2008	95.2	15.8
01-081308 dup	8/13/2008	70.2	16.7
STOCKPILED SOILS FROM NE CORNER OF SITE AND SURFACE SOILS			
Sample ID	Date Sampled	Lead	Arsenic
070625015-001	6/22/2007	60.1	61.4
070625015-002	6/22/2007	355.0	64.0
070702031-001	6/29/2007	186.0	54.6
070702031-002	6/29/2007	130.0	48.6
STOCKPILED SOILS FROM DEEP SEWER TRENCH EXCAVATION			
Sample ID	Date Sampled	Lead	Arsenic
070719015-001	7/18/2007	3.48	2.49
070719015-002	7/18/2007	4.56	3.65
071010016-001	10/9/2007	11.40	5.02
071010016-002	10/9/2007	6.18	4.09
IMPORTED FILL			
Sample ID	Date Sampled	Lead	Arsenic
5	10/3/2008	<5.0	<5.0
MTCA Method A Cleanup Levels		250 mg/kg	20 mg/kg

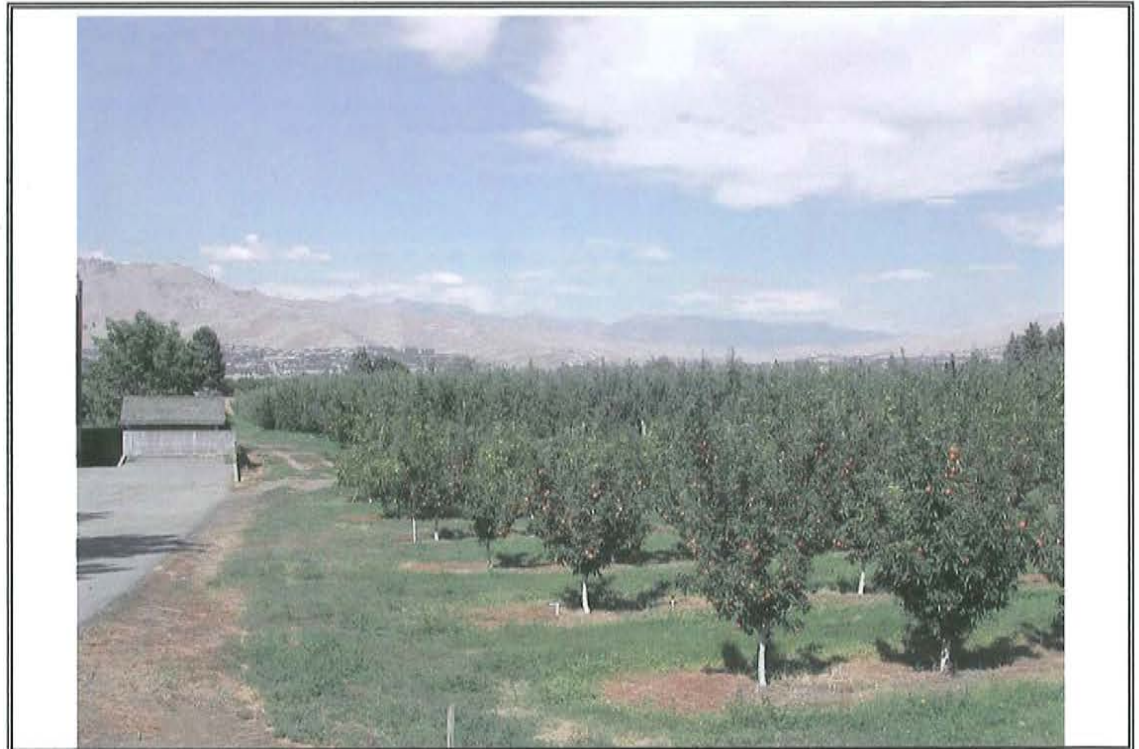
SITE PHOTOGRAPHS



Photograph Number 1: This photo shows a view of the northern property boundary at the time of purchase.



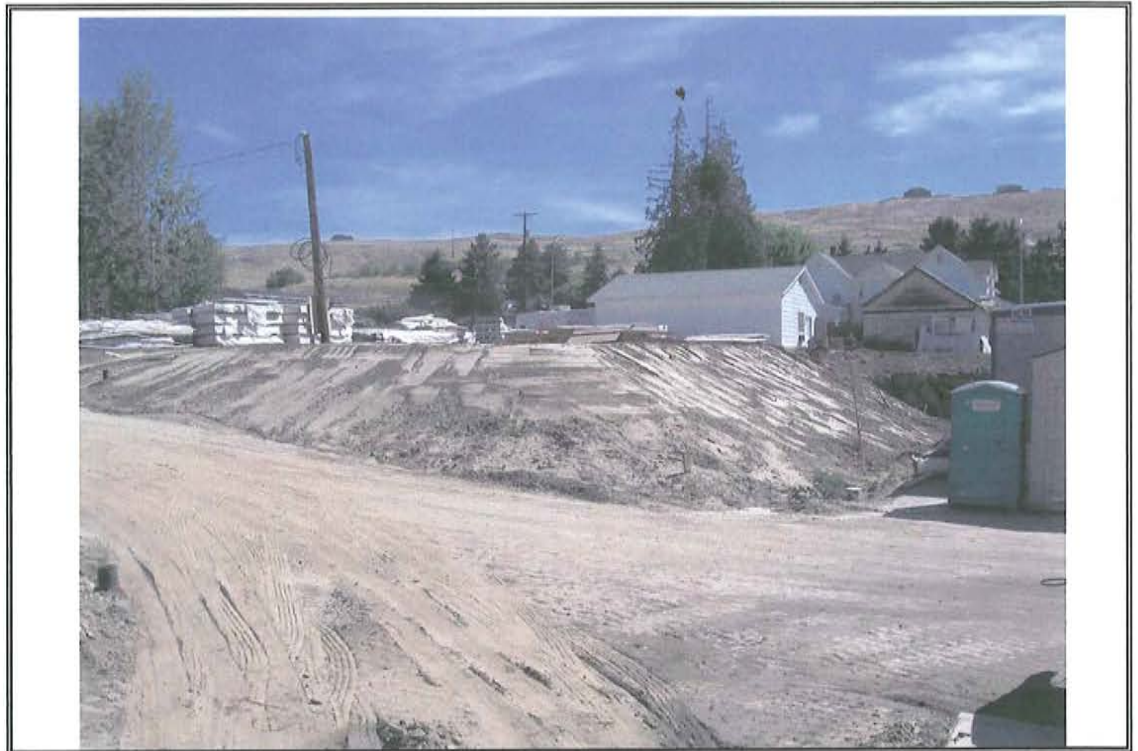
Photograph Number 2: This photo shows a view of the western property boundary at the time of purchase.



Photograph Number 3: This photo shows a view of the southern edge of the property at the time of purchase.



Photograph Number 4: This photo shows a view of the eastern boundary of the property at the time of purchase.



Photograph Number 5: This photo shows a view where the deep trench was excavated and the arsenic-containing soils were buried.



Photograph Number 6: This photo shows a view across the property as seen from the northeast corner. The stockpile of soil visible in the bottom left of the photo is the one containing arsenic-containing soils.



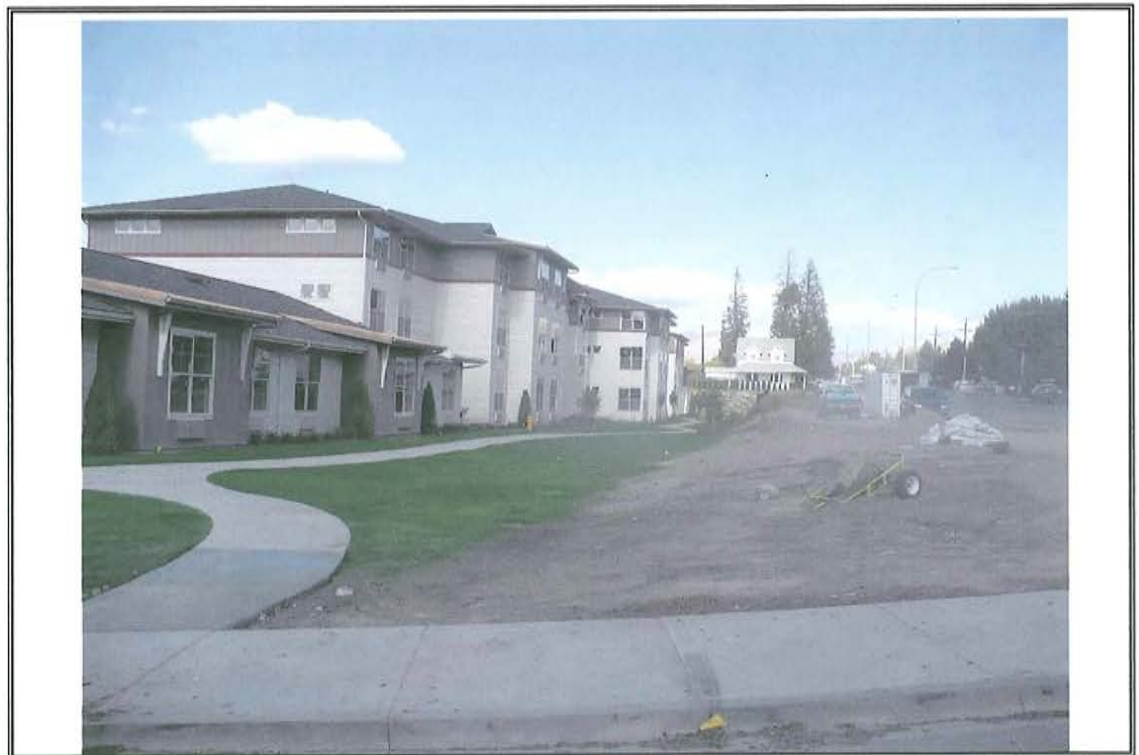
Photograph Number 7: This photo shows view of the property and how the grading has been changed. Highway 2 (Sunset Highway) is visible in the background.



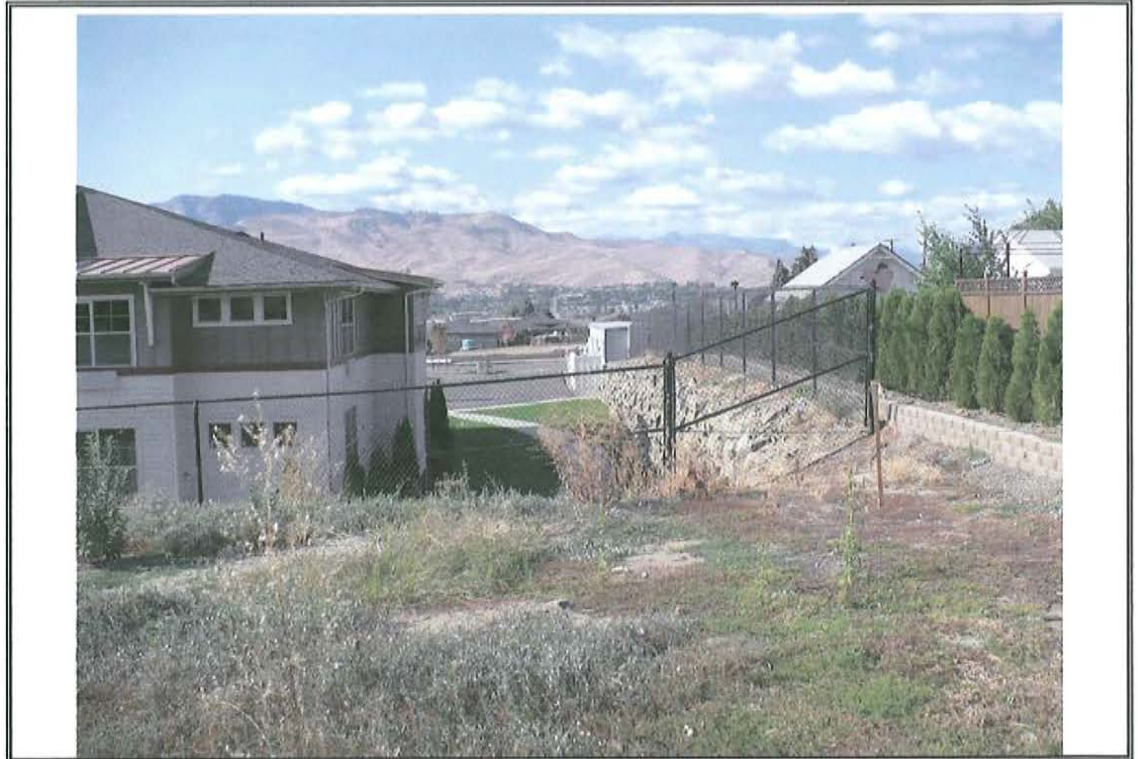
Photograph Number 8: This photo shows a view of the northeast corner of the property and the amount of excavation that occurred at this location on the site.



Photograph Number 9: This photo shows a view of the property as seen from 29th Street E. The clean soil stockpile is visible in the bottom right corner of the photo.



Photograph Number 10: This photo shows a view of the current eastern property boundary. Highway 2 is present on the right side of the photo.



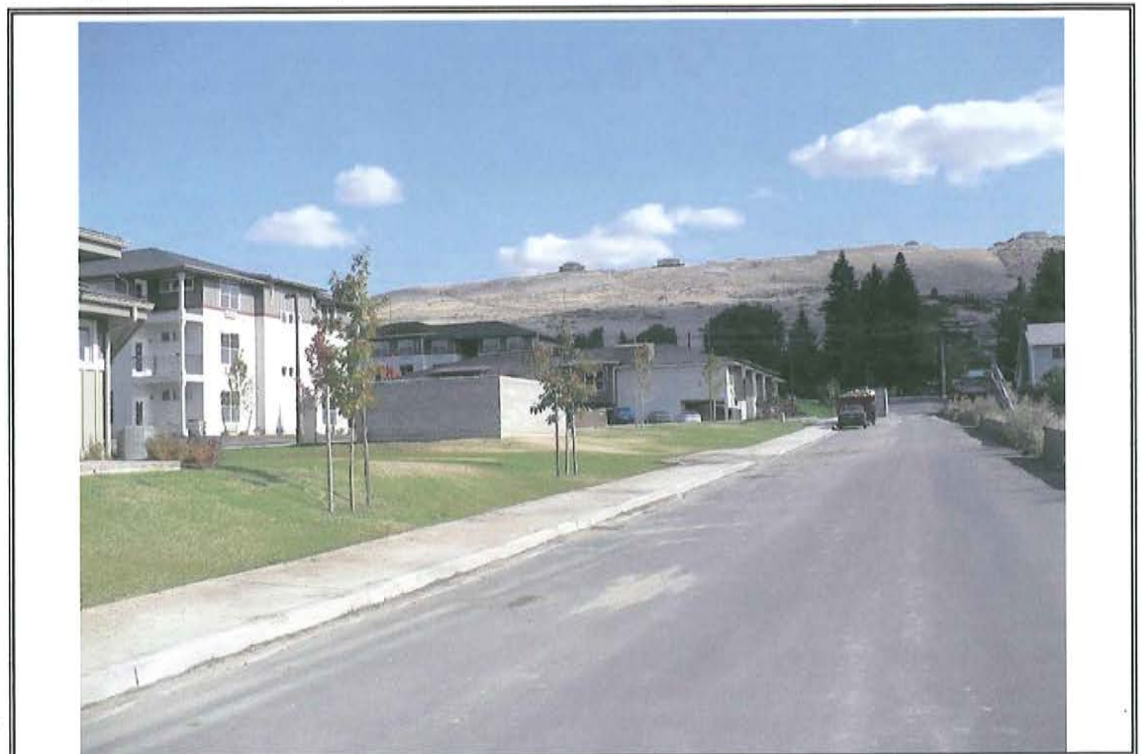
Photograph Number 11: This photo shows a view across a portion of the northern property boundary and shows the gradation differential between Highway 2 and the current excavated grade.



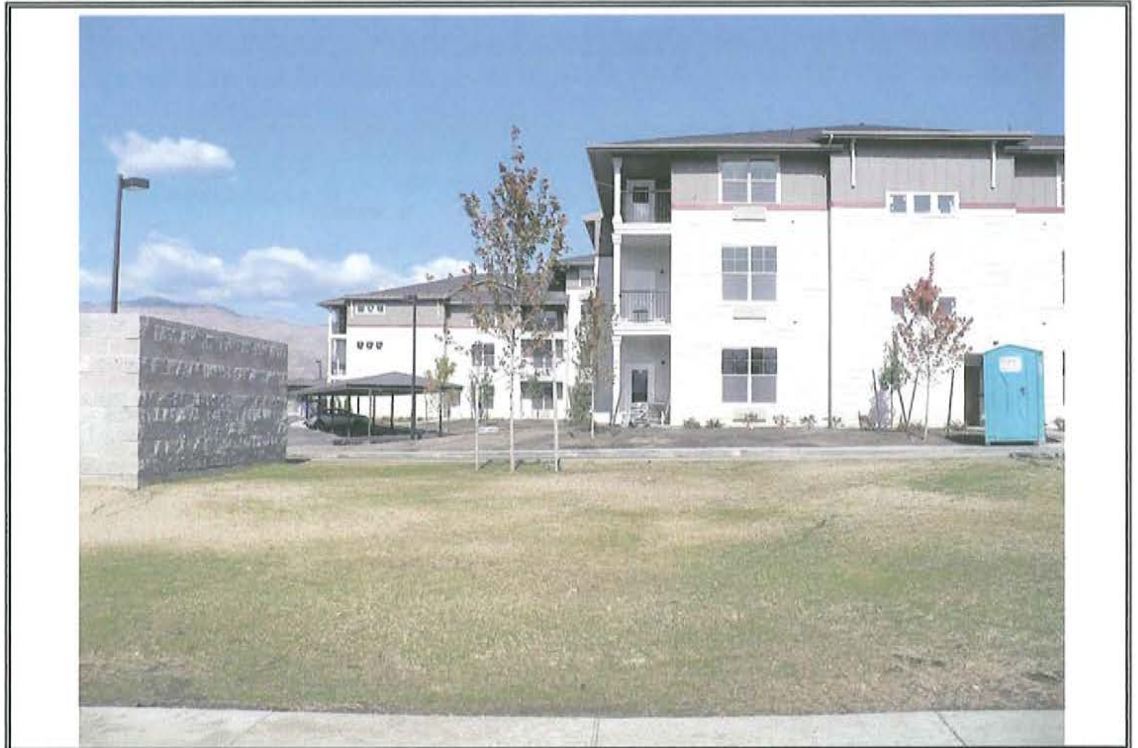
Photograph Number 12: This photo shows a view along the western property boundary taken from 29th Street E.



Photograph Number 13: This photo shows a second view along the western property boundary.



Photograph Number 14: This photo shows a view along the southern property boundary as currently exists at the site.



Photograph Number 15: This photo shows a view of a portion of the site that has capped with a six-inch layer of clean fill. The area has not been covered with sod in this photo.



Photograph Number 16: This photo shows a view of where the deep trench was excavated and the arsenic-containing soils buried.



Photograph Number 17: The sod-covered area in the foreground of the photo is an area capped with a six-inch layer of clean fill and covered with sod.



Photograph Number 18: This photo shows the former location of the arsenic-containing soils stockpile.

APPENDIX A

LABORATORY ANALYTICAL RESULTS



Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

May 9, 2008

Verna Curry
V Environmental
PO Box 13513
Des Moines, WA 98198

Dear Mrs. Curry:

Please find enclosed the analytical data report for the MWLF Wenatchee Project located in Wenatchee, Washington. Soil samples were received and analyzed for Arsenic and Lead by EPA Method 7000 Series on May 8, 2008.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWIE WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

Libby Project No. L080507-1

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Arsenic (mg/kg)
Method Blank	5/8/08	nd	nd
01-050508	5/8/08	13.9	nd
02-050508	5/8/08	15.9	6.0
03-050508	5/8/08	79.4	8.0
04-050508	5/8/08	137	30
05-050508	5/8/08	nd	9.2
06-050508	5/8/08	nd	32
07-050508	5/8/08	26	6.0
08-050508 Comp	5/8/08	195	69
08-050508 Comp Dup	5/8/08	163	61
Practical Quantitation Limit		5.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Date: 05/06/2008

Page: 1 of 1

Client: V Environmental

Project Manager: Verna Lee Curry

Address: PO Box 13513 Des Moines, WA 98198

Project Name: MWI E Wenatchee

Phone: 253-939-9369

Fax: 509-267-1955

Location: 29th & Sunset Hwy, E Wenatchee

Client Project # 245-1

Collector: N. Cochran

Date of Collection: 05/05/2008

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8280	SEM VOL 8270	NWTPH-HCID	NWTPH-GX	NWTPH-LGX	PAH 8270	PCB's 8082	MTBE's/MX's	Field Notes
1 01-050508	6-12"	1:15	Soil	8 oz. Jar									X		
2 02-050508	"	3:35	"	"									X		
3 03-050508	"	3:40	"	"									X		
4 04-050508	"	3:45	"	"									X		Email results to Verna
5 05-050508	"	3:50	"	"									X		
6 06-050508	"	3:58	"	"									X		
7 07-050508	"	4:04	"	"									X		
8 08-050508	"	4:15	"	"									X		Vernateller @ earthlink.net
9 09-050508	"	4:21	"	"									X		
10															
11															
12															
13															
14															
15															
16															
17															

Relinquished by: [Signature] Date / Time: 5/6/08 12:01

Relinquished by: _____ Date / Time: _____

Relinquished by: _____ Date / Time: _____

Received by: [Signature] Date / Time: 5/7/08 9:30 A

Received by: _____ Date / Time: _____

Received by: _____ Date / Time: _____

Sample Receipt:

Good Condition? ☐

Cold? ☐

Seals Intact? ☐

Total Number of Containers: _____

Remarks:

[Signature]
48hr

Direction: White - Lab, Yellow - File, Pink - Original



Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

May 9, 2008

Verna Curry
V-Environmental
PO Box 13513
Des Moines, WA 98198

Dear Mrs. Curry:

Please find enclosed the analytical data report for the MWI E Wenatchee Project located in Wenatchee, Washington. Soil samples were received and analyzed for Arsenic and Lead by EPA Method 7000 Series on May 8, 2008.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWLE WENATCHEE PROJECT
Wenatchee, Washington
V Environmental
Client Project #245-1

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Arsenic (% Recovery)
LCS	5/8/08	108%	110%
05-050508 MS	5/8/08	119%	115%
05-050508 MSD	5/8/08	105%	121%
RPD	5/8/08	13%	5%
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSIS PERFORMED BY: Sherry Chilcurn

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWIE WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Arsenic (mg/kg)
Method Blank	5/8/08	nd	nd
01-050708	5/8/08	22.6	nd
02-050708	5/8/08	10.1	nd
03-050708	5/8/08	5.7	nd
Practical Quantitation Limit		5.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

Chain of Custody Record

4130 Libby Road NE
Olympia, WA 98505

Ph: 360-352-2110
Fax: 360-352-4164

Client: V Environmental

Address: PO Box 13513 Des Moines, WA 98198

Phone: 253-939-9369 Fax: 509-267-1955

Client Project #: 245-1

Date: 05/07/2008

Page: 1 of 1

Project Manager: Verna Lee Curry

Project Name: MWI E Wenatchee

Location: 29th & Sunset Hwy, E Wenatchee

Collector: N. Cochran

Date of Collection: 05/07/2008

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEM VOL 8270	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBs 8082	Mercury 8082	Field Notes
1	01-050708	6-12"	2:39	Soil	8 oz. Jar										
2	02-050708	"	2:47	"	"										
3	03-050708	"	2:57	"	"										
4															
5															
6															
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10															
11															
12															
13															
14															
15															
16															
17															

Relinquished by: [Signature] Date / Time: 5/7/08 3:25

Relinquished by: _____ Date / Time: _____

Relinquished by: _____ Date / Time: _____

Received by: [Signature] Date / Time: 5/8/08 10AM

Received by: _____ Date / Time: _____

Received by: _____ Date / Time: _____

Sample Receipt:

Good Condition? ☐

Cold? ☐

Seals Intact? ☐

Total Number of Containers: _____

Remarks: 246



Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

May 23, 2008

Verna Curry
V Environmental
PO Box 13513
Des Moines, WA 98198

Dear Mrs. Curry:

Please find enclosed the analytical data report for the MWIE Wenatchee Project located in Wenatchee, Washington. Soil samples were received and analyzed for Arsenic and Lead by EPA Method 7000 Series on May 20, 2008.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWLE WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

Libby Project No.L080515-1

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Arsenic (mg/kg)
Method Blank	5/20/08	nd	nd
01-051408	5/20/08	70	50
02-051408	5/20/08	37	11
03-051408	5/20/08	48	12
03-051408 Dup	5/20/08	43	11
Practical Quantitation Limit:		5.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWIE WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Arsenic (% Recovery)
LCS	5/20/08	89%	82%
MS	5/20/08	105%	102%
MSD	5/20/08	83%	104%
RPD	5/20/08	24%	2%
Practical Quantitation Limit:		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcote

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Date: 05/14/2008

Page: 1 of 1

Client: V Environmental

Project Manager: Verna Lee Curry

Address: PO Box 13513 Des Moines, WA 98198

Project Name: MWI E Wenatchee

Phone: 253-939-9389 Fax: 509-267-1985

Location: 29th & Sunset Hwy, E Wenatchee

Client Project # 245-1

Collector: N Cochran Date of Collection: 05/14/2008

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8020	SEM VOL 8270	NWTPH-KC10	NWTPH-Ex	NWTPH-Dx	PAH 8270	PCB's 8082	Mercury 8082	Field Notes
1	01-051408	6-12"	2:31	Soil	8 oz. Jar										x
2	02-051408	"	2:40	"	"										x
3	03-051408	"	2:51	"	"										x
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															

Relinquished by: *[Signature]* Date / Time: 5/14/08 3:35

Relinquished by: _____ Date / Time: _____

Relinquished by: _____ Date / Time: _____

Received by: *[Signature]* Date / Time: 5/15/08 9:30 AM

Received by: _____ Date / Time: _____

Received by: _____ Date / Time: _____

Sample Receipt:

Good Condition? ☐

Cold? ☐

Seals Intact? ☐

Total Number of Containers: _____

Remarks: TAT
By Wednesday
5/14

Distribution: White - Lab, Yellow - File, Pink - Original



Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

August 5, 2008

Verna Curry
V Environmental
PO Box 13513
Des Moines, WA 98198

Dear Mrs. Curry:

Please find enclosed the analytical data report for the MWI E Wenatchee Project located in Wenatchee, Washington. Soil samples were received and analyzed for Lead & Arsenic by EPA Method 7000 Series on August 1, 2008.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWI E WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

Libby Project No. J.080731-4

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Arsenic (mg/kg)
Method Blank	8/1/08	nd	nd
01-073008	8/1/08	24	5.6
02-073008	8/1/08	7	nd
03-073008	8/1/08	15	nd
03-073008 Dup	8/1/08	10	8.2
Practical Quantitation Limit		5.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWI E WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Arsenic (% Recovery)
LCS	8/1/08	91%	92%
MS	8/1/08	85%	94%
MSD	8/1/08	85%	102%
RPD	8/1/08	0%	9%
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt



Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

August 28, 2008

Verna Curry
V Environmental
PO Box 13513
Des Moines, WA 98198

Dear Mrs. Curry:

Please find enclosed the analytical data report for the MWI E Wenatchee Project located in Wenatchee, Washington. A soil sample was received and analyzed for Lead & Arsenic by EPA Method 7000 Series on August 22, 2008.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWLE WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

Libby Project No.L080814-5

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Arsenic (mg/kg)
Method Blank	8/22/08	nd	nd
01-081308	8/22/08	95.2	15.8
01-081308 Dup	8/22/08	70.2	16.7
Practical Quantitation Limit		5.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

MWLE WENATCHEE PROJECT

Wenatchee, Washington

V Environmental

Client Project #245-1

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Arsenic (% Recovery)
LCS	8/22/08	96%	97%
MS	8/22/08	94%	82%
MSD	8/22/08	96%	109%
RPD	8/22/08	2%	28%
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Client: V Environmental

Address: PO Box 13513 Des Moines, WA 98198

Phone: 253-939-9369

Fax: 509-267-1955

Client Project # 245-1

Date: 05/13/2008

Page 1 of 1

Project Manager: Verna Lee Curry

Project Name: MWI E Wenatchee

Location: 29th & Sunset Hwy, E Wenatchee

Collector: N. Cochran

Date of Collection: 05/13/2008

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8280	SEM VOL 8270	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCP's 8082	APPC-A-Wenatchee	Field Notes
1	01-081308	6-12"	Soil	8 oz. Jar									x		
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															

Relinquished by: [Signature] Date / Time: 5/13/08 2:15

Relinquished by: _____ Date / Time: _____

Relinquished by: _____ Date / Time: _____

Received by: [Signature] Date / Time: 5/14/08 10:00

Received by: _____ Date / Time: _____

Received by: _____ Date / Time: _____

Sample Receipt:

Good Condition? ☐

Cold? ☐

Seals Intact? ☐

Total Number of Containers: _____

Remarks: Std



Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

October 22, 2008

David Robinson
KRCL, LLC
PO BOX 5120
Entiat, WA 98822

Dear Mr. Robinson:

Please find enclosed the analytical data report for the Borrow Area Project located in Entiat, Washington. A soil sample was received and analyzed for Lead and Arsenic by EPA Method 7000 Series on October 3, 2008.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 * Fax (360) 352-4154 * libbyenv@aol.com

Chain of Custody Record

Ph: 360-352-2110
Fax: 360-352-4154

Address: P.O. Box 5120

Phone: 509 884-5258

Client Project # ENHART

Date: 9/29/08

Project Manager: David Robinson

Project Name: Donor driven

Location: ENTRAT, WH

Collector: David

Date of Collection: 9/26/08

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B VOA 8021B BTEX Only VOA 8260 SEMI VOL 8270 NWTPH-HCID NWTPH-Gx NWTPH-Dx NWTPH-Dx Ext. PAH 8270 PCB's 8082 MTCA 5 Metals Lead Arsenic	Field Note# Containers
1						
(5)	Surf	10:20	SOL	BAGGY		X
2						X
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

Relinquished by: David Robinson

Date / Time: 9/29 / 11:00 AM - WKS

Received by: [Signature]

Date / Time: 10/2/08 A.DON

Relinquished by:

Date / Time:

Received by:

Date / Time:

Remarks: STD

Distribution : White - Lab. Yellow - File Pink - Original

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: FORSGREN ASSOCIATES, INC.
Address: 112 OLD STATION RD
WENATCHEE, WA 98801
Attn: JIM CALDWELL

Batch #: 070625015
Project Name: MTN. WEST SR. HOUSING

Analytical Results Report

Sample Number	070625015-001	Sampling Date	6/22/2007	Date/Time Received	6/25/2007 11:10 AM
Client Sample ID	62207-01			Matrix:	Soil

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	61.4	mg/Kg	0.5	6/26/2007	RAS	EPA 6020A	
Lead	60.1	mg/Kg	0.5	6/26/2007	RAS	EPA 6020A	
%moisture	8.6	Percent				%moisture	

Sample Number	070625015-002	Sampling Date	6/22/2007	Date/Time Received	6/25/2007 11:10 AM
Client Sample ID	62207-02			Matrix:	Soil

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	64.0	mg/Kg	0.5	6/26/2007	RAS	EPA 6020A	
Lead	355	mg/Kg	0.5	6/26/2007	RAS	EPA 6020A	
%moisture	10.9	Percent				%moisture	

Authorized Signature



MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

Comments:

Tuesday, June 26, 2007

Page 1 of 1

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: FORSGREN ASSOCIATES, INC.
Address: 112 OLDS STATION RD
WENATCHEE, WA 98801
Attn: T&K

Batch #: 070702031
Project Name: MTN. WEST SR.
HOUSING 08-05-0105

Analytical Results Report

Sample Number	070702031-001	Sampling Date	6/29/2007	Date/Time Received	7/2/2007	10:30 AM
Client Sample ID	01-062907	Sampling Time	11:45 AM			
Matrix:	Soil					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	54.6	mg/Kg	0.5	7/10/2007	ETL	EPA 8020A	
Lead	186	mg/Kg	0.5	7/10/2007	ETL	EPA 8020A	
%moisture	7.3	Percent		6/9/2007	CH	%moisture	

Sample Number	070702031-002	Sampling Date	6/29/2007	Date/Time Received	7/2/2007	10:30 AM
Client Sample ID	02-062907	Sampling Time	11:46 AM			
Matrix:	Soil					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	48.6	mg/Kg	0.5	7/10/2007	ETL	EPA 8020A	
Lead	130	mg/Kg	0.5	7/10/2007	ETL	EPA 8020A	
%moisture	7.4	Percent		6/9/2007	CH	%moisture	

Authorized Signature



MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

Comments:

Wednesday, July 11, 2007

Page 1 of 1



FILE COPY

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: FORSGREN ASSOCIATES, INC.
Address: 112 OLD STATION RD
WENATCHEE, WA 98801
Attn: T&K

Batch #: 070719015
Project Name: 08-05-0105 MTN WEST
SR. HOUSING

Analytical Results Report

Sample Number	070719015-001	Sampling Date	7/18/2007	Date/Time Received	7/19/2007 11:30 AM
Client Sample ID	01-071807			Matrix:	Soil

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	2.49	mg/Kg	0.5	7/23/2007	ETL	EPA 6020A	
Lead	3.48	mg/Kg	0.5	7/23/2007	ETL	EPA 6020A	
%moisture	4.4	Percent		7/23/2007	CH	%moisture	

Sample Number	070719015-002	Sampling Date	7/18/2007	Date/Time Received	7/19/2007 11:30 AM
Client Sample ID	02-071807			Matrix:	Soil

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	3.65	mg/Kg	0.5	7/23/2007	ETL	EPA 6020A	
Lead	4.56	mg/Kg	0.5	7/23/2007	ETL	EPA 6020A	
%moisture	4.7	Percent		7/23/2007	CH	%moisture	

Authorized Signature

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

Comments:

Monday, July 23, 2007

Page 1 of 1

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: FORSGREN ASSOCIATES, INC.
Address: 112 OLD STATION RD
WENATCHEE, WA 98801
Attn: DFH

Batch #: 071010016
Project Name: MTN WEST SR.
HOUSING 08-05-0105

Analytical Results Report

Sample Number	071010016-001	Sampling Date	10/9/2007	Date/Time Received	10/10/2007 11:15 AM
Client Sample ID	01-100907	Sampling Time	10:35 AM		
Matrix:	Soil				

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	5.02	mg/Kg	0.5	10/12/2007	ETL	EPA 6020A	
Lead	11.4	mg/Kg	0.5	10/12/2007	ETL	EPA 6020A	
%moisture	12	Percent		10/11/2007	CH	%moisture	

Sample Number	071010016-002	Sampling Date	10/9/2007	Date/Time Received	10/10/2007 11:15 AM
Client Sample ID	02-100907	Sampling Time	10:38 AM		
Matrix:	Soil				

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	4.09	mg/Kg	0.5	10/12/2007	ETL	EPA 6020A	
Lead	6.18	mg/Kg	0.5	10/12/2007	ETL	EPA 6020A	
%moisture	8.1	Percent		10/11/2007	CH	%moisture	

Authorized Signature



MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

Comments:

Friday, October 12, 2007

Page 1 of 1

APPENDIX B
OPERATIONS AND MAINTENANCE MANUAL

**BONAVENTURE
ARSENIC CONTAMINATED SOIL
OPERATION & MAINTENANCE PLAN**

**Bonaventure Senior Living of East Wenatchee
50 29th Street NW
East Wenatchee, WA 98802**

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- 2. DEFINITIONS**
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 - 3.2 IN-HOUSE WORKERS AND MAINTENANCE STAFF
 - 3.3 CONTRACTORS AND VENDORS
- 4. ANTICIPATED SITE HAZARDS**
 - 4.1 CHEMICAL HAZARDS – POTENTIAL EXPOSURE ROUTES
 - 4.2 PHYSICAL HAZARDS
- 5. WORK CONTROLS**
- 6. WORK PRACTICES**
- 7. RECORDKEEPING**
- 8. EMERGENCY RESPONSE**
- 9. SITE COMMUNICATION**

1. INTRODUCTION

This Operation and Maintenance (O&M) Plan has been prepared for use by Bonaventure Senior Living of East Wenatchee, located at 50 29th Street NW in East Wenatchee, Washington, the Site. The O&M Plan provides guidance to Bonaventure personnel conducting work at the Site. This Plan discusses potential chemical and physical hazards anticipated on Site and entails control measures to assure worker safety.

The O&M Plan has been developed for use by Bonaventure employees and contractors as a guide for completing service, cleaning and maintenance tasks which involve contact with or disturbance of potentially arsenic contaminated soil (ACS) in day to day activities.

The main purpose of this plan is to provide specific protocol for limiting exposure to ACS and prevent disturbance of soil at the Site. When small scale disturbance is necessary, or has occurred unintentionally, this O&M Plan will provide specific protocol that will reduce or eliminate the risk of exposure above the regulatory Permissible Exposure Limit (PEL) of 10 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air determined as an average over an 8-hour period in accordance with Occupational Safety and Health Administration (OSHA) 29 CFR 1910 subpart Z. This plan does not address remediation of arsenic contaminated soil. It deals specifically with day-to-day operations only.

The key elements which are included in this O&M Plan are as follows:

- Definitions
- Notification program to inform employees, tenants, and contractors of where ACS is located and how and why to avoid disturbance.
- Work control system to prevent unauthorized disturbance of ACS during site construction and/or landscaping activities.
- Specific work practices to be followed when working with ACS which will reduce/eliminate the risk of exposure to ACS.
- Record keeping system to document the presence of ACS and ongoing O&M activities.
- Worker protection plan which includes medical surveillance and a respiratory protection plan when required.
- Training program to ensure that Bonaventure Senior Living of East Wenatchee employees and contractors are properly trained and informed in the hazards of ACS, OSHA health & safety concerns, and Bonaventure policy on the disturbance of ACS.
- Emergency response.

3. NOTIFICATION

3.1 BUILDING OCCUPANTS:

All occupants must be notified of the existence and location of ACS. Occupants shall additionally be notified of the health dangers associated with long term exposure to ACS and be made aware of any safety measures regarding exposure. Notification will be achieved by use of warning placards and quarterly meetings conducted by Bonaventure staff. All occupants will be provided access to this O&M Plan.

3.2 IN-HOUSE WORKERS AND MAINTENANCE STAFF:

Any custodial and maintenance staff conducting O&M on Site will be notified of the existence and location of ACS. In addition to notification, custodial and maintenance staff will complete all required training pertaining to ACS described here within. All custodial and maintenance staff will be provided access to the O&M Plan.

3.3 CONTRACTORS AND VENDORS:

Prior to the start of any work, contractors arriving on campus will be alerted in writing, verbally and/or by a chaperoned site walk, of the potential presence of ACS in the work area. Upon arrival for any work to be performed on Site, contractors will sign in on a Visitor Sign-In log and will be required to sign out at the end of each day. All contractors will be provided access to this O&M Plan.

4. ANTICIPATED SITE HAZARDS

Potential site hazards that Bonaventure maintenance staff and/or contractors/vendors may encounter at the Site during work site activities that entail landscaping activities, construction activities, and/or soil sampling are discussed below.

4.1 CHEMICAL HAZARDS – POTENTIAL EXPOSURE ROUTES

The Washington State Department of Ecology established residential soil cleanup standards of 20 milligrams per kilogram (mg/Kg) for arsenic (Model Toxics control Act cleanup Regulation, Chapter 173-340 Washington Administrative Code). The Washington State Department of Health estimates soil arsenic concentrations below 37 mg/kg should protect the health of children having frequent exposure to contaminated soils, and regards 175 mg/kg as safe for adults having occasional exposure to contaminated soil (*Hazards of short-term exposure to arsenic contaminated soil*, Washington State Department of Health, Olympia, WA, January 1999).

According to a study by the Washington State University on ACS, the *“rare cases of acute toxic responses to soil arsenic involve a combination of atypical circumstances: highly susceptible individuals, exceptionally high-contact exposure, or the presence of highly soluble forms of arsenic in the soil. Chronic exposure to soil lead and arsenic is the principal concern. People exposed to environmental sources of arsenic over long periods of time are more likely to have elevated body burdens of these elements and, consequently, increased risk of developing adverse health effects.”*

Arsenic enters the body primarily through ingestion; however, other potential routes are discussed below:

Ingestion

The inadvertent transfer of site contaminants from hands or other objects to the mouth could occur. For this reason, eating, drinking, smoking, chewing tobacco, or similar activities are not allowed in the arsenic soil contaminated areas.

Inhalation

Particle of soil containing arsenic constituent may become airborne when excavated and exposed.

Absorption

The potential for exposure to ACS will be from skin and eye contact. For this reason, protective clothing, boots, and safety glasses must be worn at all times by workers on Site to prevent potential exposure.

4.2. PHYSICAL HAZARDS

Physical Site activities may present a number of routine physical hazards, including danger from construction vehicles, noise, tripping, and other safety hazards. In order to minimize these hazards, site workers must maintain a high degree of vigilance while moving about the Site, and will obey all safety hazard placards posted on Site.

5. WORK CONTROLS

Bonaventure maintenance staff and/or contractors can control the amount of their exposure to ACS by adopting the following practices at the Site:

Land Use Practices

- Barriers: place a barrier between the uncontaminated topsoil and underlying ACS to reduce mixing and to segregate depth to ACS in areas requiring new or re-worked landscaping activities. Impermeable barrier such as thick plastic sheeting between the new soil and the underling ACS keep plant roots from penetrating into buried soil to absorb arsenic.
- Do not use arsenic treated lumber to construct raised beds.
- Replace contaminated soil: should excavation into ACS be necessary, soil samples of the excavated topsoil would need to be submitted for analysis to determine their arsenic concentration and subsequently if the soil would require special handling for disposal as per Ecology Dangerous Waste Regulations, Chapter 173-303 WAC.
- Increase soil organic matter by adding compost, manures, and other organic soil amendments to reduce plant uptake of soil arsenic. Subsequently, the soil arsenic concentration will be reduced by this dilution process.
- Adding phosphate amendments to high arsenic soils will ***"increase in plant biomass and dilute any extra absorbed arsenic and reduce plant arsenic concentration"*** according to the study by the Washington State University on ACS.

Personal Protection Practices

- Do not drink, eat, smoke, or engage in other activities that may introduce soil into the mouth.
- Wear a dust mask or respirator in dusty environments to minimize both inhalation and ingestion of airborne soil particles.
- Keep soil and working area moist to control dust.
- Wash all exposed body surfaces as soon as possible after working within ACS areas.
- Wash all tools and supplies after each use.

Ambient Air Monitoring in Work Zones

- Workers working in areas that require extensive disturbance of ACS will need to have the ambient air monitored for concentrations of arsenic.
- Air monitoring will consist of visual observations of air quality complemented by use of at least one or more wind socks. In addition, an air monitor equipped with filters for trapping fine particulate matter, such as arsenic, would be available on Site. The combination of the physical monitoring devices (wind socks) and air monitoring device to analyze the airborne particulates is expected to provide Bonaventure Site Supervisor with sufficient information to monitor the area of disturbance.
- Use portable air monitoring equipment such as a Trace Atmospheric Gas Analyzer (TAGA) to monitor fine particulate matter, such as arsenic. The PEL for arsenic in ambient air monitoring, as per OSHA, is $10 \mu\text{g}/\text{m}^3$ over an average of an 8-hour period.
- Wear a dust mask or respirator in dusty environments to minimize both inhalation and ingestion of airborne soil particles.

6. WORK PRACTICES

Initiation of ACS related work on the campus shall begin with the completion of an Arsenic Survey Request (as described in the Work Controls section of this plan) by the party of department initiating or requesting the work. Following completion of the survey, and issuance of a Work Authorization Permit that requires special work practices for ACS disturbance, the requesting party should be prepared to work with Bonaventure to schedule trained personnel to perform the work. Oversight services will typically be provided by Site Supervisor for O&M tasks. Proceeding with any disturbance of ACS without informing the Site of the schedule is strictly prohibited. The Site has the authority and responsibility for managing arsenic waste generated during the course of work, ensuring that safe work practices are employed, and maintaining up-to-date records of O&M activities which disturb ACS.

All O&M work performed on Site shall follow either the work practices outlined in this plan, or previously developed and validated work practices approved by the Site. A Bonaventure Supervisor will review work practices with O&M trained personnel prior to the start of work.

7. RECORDKEEPING

Written or computer records of all Arsenic Survey Requests, and resulting Work Authorization Permits, are housed in the office of the Site Supervisor.

Records of respirator fit tests, medical surveillance, personal air monitoring, and negative exposure assessments are housed in the office of the Site Supervisor to comply with OSHA Standards. Copies of air monitoring results are used to complete/validate initial or negative exposure assessments for O&M ACS related work.

The following logs, reports, and records (as necessary) will be developed and maintained in the project office of the Site Supervisor:

- Daily safety meetings
- Training logs
- Safety inspection logs
- Employee/visitor sign in
- Monitoring results
- Activity hazard analysis
- Accident Report Form

8. EMERGENCY RESPONSE

All Bonaventure staff, contractors and employees of contractors will observe safety procedures consistent with the training described here within. In case of emergency, immediately contact appropriate authorities listed below:

Police, Ambulance, Fire

911

Hospital: **Central Washington Hospital**
1201 South Miller Street
Wenatchee, WA 98801

(509) 662-11511

Directions to Hospital:

Start out going east on 29th Street NW toward WA-28/Sunset Hwy
Turn right onto WA-28/Sunset Hwy
Turn slight right onto WA-285
Turn right onto S. Mission St/WA-285
Turn left onto Ferry Street
Ferry Street becomes Russell Street
Turn left onto S. Miller Street
Hospital is on 1201 S. Miller Street

9. SITE COMMUNICATION

The following Site contacts are responsible for communicating and implementing the O&M Plan:

Mountain West Community Construction: Paul Glaunert
Phone: (503) 566-5715

Mountain West Community Construction Safety Officer: Paul Glaunert
Phone: (503) 566-5715

Attachments:

Bonaventure Senior Living of East Wenatchee Arsenic Survey Request Form

Bonaventure Senior Living of East Wenatchee Contractor Notification and Confirmation for Arsenic Contaminated Soil on the Property Form

Limited Site Characterization Report (Site Maps)

Bonaventure Senior Living of East Wenatchee Arsenic Survey Request

Attention: _____

Date of Request: _____

Name of Requestor: _____

Telephone: _____

Fax: _____

Email: _____

Work Order or Project Number: _____

Type of Services Requested (circle one):

Remediation

Repair

Survey

Evaluation

Other

Location of arsenic Contaminated Soil

General Location (i.e. SW Quadrant): _____

Anticipated Depth: _____

Specific Location (GPS): _____

Description of Material: _____

Quantity of Material in Cubic Feet or Cubic Yards: _____

Date of Anticipated Disturbance: _____

Describe in detail the nature of the work anticipated/requested: _____

DO NOT WRITE BELOW THIS LINE

Received: _____

Action: _____

Contractor (if applicable): _____

Date of Completion: _____

Comments: _____

BONAVENTURE SENIOR LIVING OF EAST WENATCHEE

CONTRACTOR NOTIFICATION AND CONFIRMATION FOR ARSENIC CONTAMINATED SOIL ON THE PROPERTY

Project Name: _____

Project number: _____

The following is a notification and confirmation for all contractors and subcontractors working at the Bonaventure Senior Living of East Wenatchee property. Limited arsenic contamination site assessment was completed on the shallow subsurface soils around the Bonaventure property in May 2008 and is available for review in the Bonaventure Senior Living of East Wenatchee office. The assessment was performed in accordance with standard industry practices for soil sampling and testing.

Bonaventure Senior Living of East Wenatchee is responsible for informing you of the presence of arsenic contaminated soil (ACS) in your project work area on the Site property. This document acts as the vehicle of notifying you of ACS present. It is the contractor's responsibility to be knowledgeable of, and comply with, all applicable local, state and federal laws.

The signature below acknowledges that you have received this information and will comply with this document and all legal requirements. If you have any questions please contact:

Company Name: _____

Name of responsible Party: _____

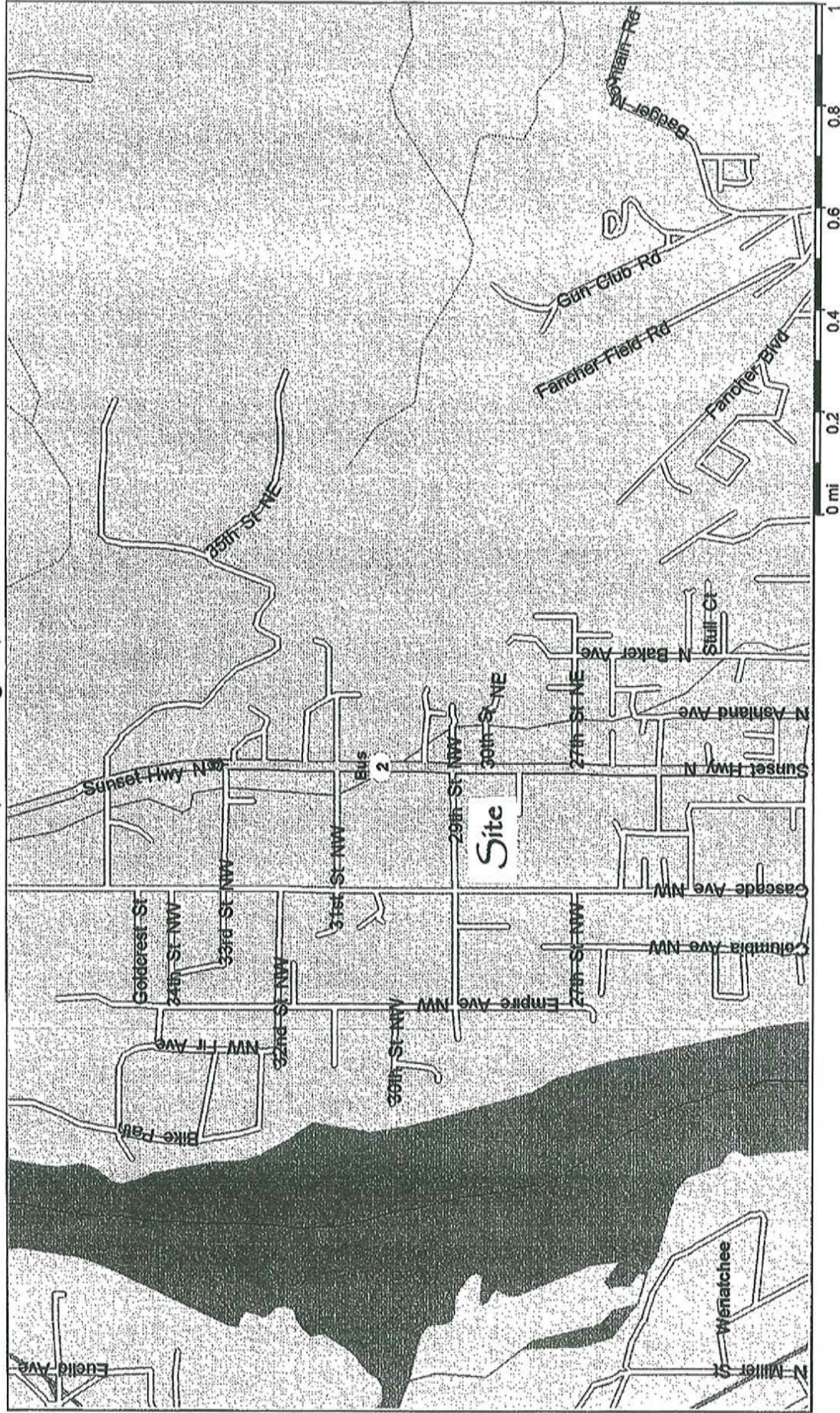
Title: _____

Signature: _____

Date: _____

**Submit signed form with bid proposal.
Failure to include this form will be considered non-responsive.**

Wenatchee, Washington, United States



APPENDIX C

STANDARD PROJECT METHODS AND PRACTICES

STANDARD PROJECT METHODS AND PRACTICES

B.1 HEALTH AND SAFETY PLAN

As part of the investigation, VE prepared a project-specific Health and Safety Plan (HASP) in accordance with Chapter 296-62 of the Washington Administrative Code (WAC) and 29 CFR 1910.120 (Code of Federal Regulations). The HASP identified potential physical and chemical hazards associated with the investigation, and specified requirements regarding personal protection and safety monitoring protocols. Onsite VE personnel involved with the field activities were required to be familiar with and comply with provisions stipulated in the HASP. Subcontractors on the Site were required to have their own HASP identifying potential physical and chemical hazards associated with their own work practices.

B.2 SAMPLE COLLECTION AND HANDLING PROCEDURES

B.4.1 Soil Samples

Soil was collected using a small shovel and placed into laboratory-prepared 4 oz. glass sample jars. Each soil sample container was labeled as detailed in Section B.6.4, and recorded on the Chain-of-Custody form (see Section B.6.3). All samples were placed immediately into a chilled cooler maintained at 4 degrees Centigrade or lower, where they were stored until delivered to the project laboratory. Alconox and distilled water was used to decontaminate the shovel between soil samples.

B.3 FIELD DOCUMENTATION

Physical parameters were documented throughout the project. Documentation included Chain-of-Custody forms, site maps and sample labels.

B.3.1 Chain-of-Custody Form

The Chain-of-Custody documents created whenever samples are collected, transferred, stored, analyzed, and destroyed are designed to create an accurate record of the possession and disposition of samples. Chain-of-Custody records can be used to trace the possession and handling of a sample from the moment of its collection through analysis and reporting of analytical values. On this project, VE's project scientist entered standard sample information on the project Chain-of-Custody form at the time each sample was collected.

The project Chain-of-Custody form included information regarding the Site name, sample identification numbers (assigned by the sampler in the field), sample date(s), sample location(s), and the type of analysis required. Whenever the sample(s) were transferred from one party to another, both parties signed the Chain-of-Custody form and recorded the date and time of the transfer. The Chain-of-Custody form accompanied the samples through all custodial entities until received by the project laboratory, where the form is filed.

B.3.2 Sample Labels

Sample labels were filled out and affixed to appropriate containers at the time of sample collection. Each label was completed with indelible ink and included information regarding the VE project number and name, sample ID number, sample location, date and time of collection, analyte, preservative(s), if any, and the sampler's initials.

B.4 ANALYTICAL LABORATORY TESTING PROGRAM

Samples intended for chemical analysis were submitted to Libby Environmental of Olympia, Washington under chain-of-custody protocol. All samples were contained, handled, and analyzed in accordance with accepted U.S. Environmental Protection Agency (EPA) and/or Washington State Department of Ecology protocols.

B.4.1 Laboratory Reporting

Results from laboratory analyses are reported on Laboratory Data Sheets. The summary sheets present information including the sample date, sample identification numbers, and results of analyses. The laboratory manager or supervisor signs the data sheets.

Prior to reporting the analytical data, the data was reviewed and verified by the project chemist. The purpose of this review was to verify the following:

- All blanks, duplicates, and matrix and surrogate spike recoveries were within the quality.

- Acceptance limits and all instrument calibrations were acceptable.
- All computations were performed correctly, and all sample results were correctly identified and reported. The analytical laboratory's project manager performs this review.

B.4.2 Laboratory Quality Assurance and Quality Control

The project laboratory was capable of performing analyses in accordance with Ecology regulations. In addition, the laboratory is accredited by Ecology for hazardous materials analysis. A copy of the laboratory's QA/QC manual and accreditation certificate are available for review upon request. Laboratory data quality was verified based on independent review by qualified VE personnel.

B.5 PROJECT REPORT QUALITY ASSURANCE

The quality of this report was assured through technical review of the report and other project deliverables by peers and VE principals. Individual sections of the report were reviewed by professionals with relevant technical expertise to ensure that data, technical issues, and regulatory interpretations are accurate and applicable.