
Sehome Mine
Preliminary Assessment Trip Report
Bellingham, Washington
TDD: 03-01-0002

Contract: 68-S0-01-01
September 2004

Region 10
START-2

Superfund Technical Assessment and Response Team

Submitted To: Joanne LaBaw, Task Monitor
United States Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

TRIP REPORT

DATE: September 24, 2004
TO: Joanne LaBaw, Task Monitor, EPA, Mail Stop ECL-115
FROM: Mark Longtine, Project Manager, E & E, Seattle, WA
SUBJ: Sehome Mine Preliminary Assessment
REF: Contract No. 68-S0-01-01, Technical Direction Document No. 03-01-0002

Place Visited:

Site Name: Sehome Mine
CERCLIS ID No.: WAN001002515
Location: Whatcom County, Washington
Latitude: 48° 44' 46" North
Longitude: 122° 28' 57" West
Legal Description: SW ¼ Section 30 and NW ¼ Section 31, Township 38 North, Range 3 East; NE ¼ and SE ¼ Section 36, Township 38 North, Range 2 East; Willamette Meridian
Congressional District: Washington

Purpose of Trip:

Site reconnaissance visit for preliminary assessment.

Persons Responding:

Mark Longtine, Ecology and Environment, Inc., Seattle, Washington.
Ben Martich, Ecology and Environment, Inc., Seattle, Washington.

Site Owners:

The exact location of the mine was not determined; therefore, site owners were not identified.

Dates of Trips:

July 3, 2003, and February 10 and 11, 2004

BACKGROUND

A preliminary assessment (PA) was performed at the Sehome Mine, located in Bellingham, Whatcom County, Washington. The United States Environmental Protection Agency (EPA) is conducting PAs and pre-Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) screenings at several abandoned coal mines in the Bellingham/Lake Whatcom area, Washington. The purpose of the PAs and pre-CERCLIS screenings is to determine whether the mines pose a threat to public health or the environment, and to determine whether environmental cleanup is needed. The EPA is conducting the PAs and pre-CERCLIS screenings in response to citizens' petition filed by two environmental groups in Bellingham, the Environmental Exposure Network and the Clean Water Alliance. These groups contend the mines may contain pollutants, such as mercury and heavy metals.

SITE DESCRIPTION/OWNERSHIP HISTORY

The Sehome Mine, sometimes referred to as the "Bellingham Bay" or "Bellingham Bay Company" coal mine (e.g., Browne 1869, Jenkins 1923, Mullen 1939, Valentine 1960), is an inactive underground coal mine that was the first successful coal mining operation in Washington Territory (Pridgeon 1978). The Sehome Mine operated between 1853 and 1878 (Jenkins 1923). Although the exact location of the mine features is uncertain (as discussed further below), it is generally believed that the mine openings were located in downtown Bellingham within the block bounded by Cornwall Avenue, Railroad Avenue, Laurel Street, and Myrtle Street (Figures 1 and 2).

The coal was discovered in 1853 by two loggers named Hewitt and Brown, who found a coal seam exposed in a hole formed by the uprooting of an overturned tree (Landes 1902). The discovery was made near the Bellingham Bay shoreline, west of the present location of State Street and south of the present location of Laurel Street (Figure 2; Edson 1968). The seam was prospected by Brown, Hewitt, and Roeder, and a shipment of 60 tons of coal was freighted to San Francisco (Edson 1968).

Information about the surface facilities and underground workings of the Sehome Mine is either lacking or unclear, largely due to the fact that the entire history of mine operations (1855 to 1878) occurred prior to the establishment of the office of the Territorial Mine Inspector in 1887, which was charged with overseeing mining activities and maintaining mine maps and records (Walsh and Logan 1989). Further, the private company mine records were reportedly lost in the San Francisco earthquake (Koert and Biery 1982).

Several authors have attempted to describe or reconstruct the locations of the underground workings and surface facilities of the Sehome Mine. Chief among them are:

- W.A. Goodyear, who prepared a report entitled *The Coal Mines of the Western Coast of the United States* (Goodyear 1877);
- Olaf Jenkins, who prepared a report entitled *Geological Investigation of the Coal Fields of Western Whatcom County, Washington* (Jenkins 1923) for the State of Washington Department of Conservation and Development, Division of Geology;
- Tetra Tech, Inc. (Tetra Tech), which prepared the *Final Report, Bellingham Abandoned Mine Land Survey* (Tetra Tech 1984) for the United States Department of the Interior, Office of Surface Mining;
- Timothy J. Walsh and Robert L. Logan, who published an article entitled *Land Subsidence in Washington*, in *Engineering Geology in Washington, Volume I*, for the State of Washington Department of Natural Resources, Division of Geology and Earth Resources (Walsh and Logan 1989); and
- BEK Purnell Engineering, Inc. (BEK), which prepared the *Report: Geotechnical Engineering Investigation, Proposed Railroad Avenue Parking Garage, Bellingham, Washington* for the City of Bellingham Parking Services (BEK 1998).

The precise locations of the former mine openings are not known. Based upon review of historical records and field investigations, Tetra Tech (1984) concluded that the original opening was possibly located “just east of the railroad tracks and just north of where Cornwall Avenue and Laurel Street would intersect near the base of the high bank... near where the original shoreline was.” It is not clear which of the many railroad tracks that have existed in the area are referred to in this description. This first portal was used until some time before 1859, when a second opening was driven (Koert and Biery 1982). The second opening was reported to be located on the bluff at a location west of State Street and south of Laurel Street (Koert and Biery 1982). Tetra Tech (1984) concluded that this second opening was located near the projected intersection of Railroad Avenue and Laurel Street, near the high bank above the old beach. This area was graded over in 1888 for the tracks of the Bellingham Bay and British Columbia Railway (Tetra Tech 1984). A third opening is believed to have been driven near the projected intersection of Railroad Avenue and Myrtle Street in 1875 (Tetra Tech 1984). A plat of the town of Sehome and the holdings of the Bellingham Bay Coal Company prepared by E.C. Prather (1883) depicts only one mine portal, at the third portal location. Jenkins (1923) refers to only one portal at the mine, also at the third portal location. This third opening was located near the remnants of the foundation of the roundhouse of the Bellingham Bay and British Columbia Railroad, and was abandoned in 1877 (Tetra Tech 1984). The approximate locations of the former mine openings are illustrated in Figure 2.

Even greater uncertainty exists as to the exact location of the underground workings of the Sehome Mine. As stated above, no maps of the underground workings are known to exist. The most detailed description of the structural geometry of the underground workings was presented by Goodyear as follows:

The mine is located at the edge of the shoreline of Bellingham Bay. It is opened by a slope some nine hundred feet in length, which goes down on the bed in a direction N. 30° W. magnetic, with a pitch of about 35°. About one hundred feet of the length of this slope is on a trestlework, above ground. The slope is oblique to the dip, the course of which at this point is about N. 57° W. magnetic.

The bed here worked is about fourteen feet thick; but it contains so much interstratified slate and 'bone' that all the coal has to be carefully sorted by hand before it is sent to market. Moreover, after several years experience in working the whole thickness of the bed, it was at last discovered that the lower half of it is so dirty that it is better economy to leave it in the mine than it is to attempt to work it. Accordingly, for the last few years, only about seven feet in thickness of the upper part of the bed has been mined.

At several times during its history the mine has been on fire, and once or twice it has been extinguished by flooding it with sea-water from the bay.

At various levels, one above the other in this mine, four gangways have been driven considerable distances north-easterly from the slope. To the south-west of the slope, one gangway was driven a short distance only, running directly out under the waters of the bay; but the coal in this direction was found poor, and the works took fire, and this portion of the mine is now closed up.

Above the lowest gangway, running north-easterly from the bottom of the slope, a lift extending about one hundred and fifty feet up the slope has been practically exhausted, and is now abandoned and filled with water. The three gangways remaining above the top of this lift are now known as the "upper," the "middle," and the "lower" gangways, respectively. The middle gangway is about one hundred and eighty or one hundred and ninety feet up the slope above the lower one. The lower gangway is about twenty-two hundred and fifty feet in length. Its course in starting from the slope is about N. 33° E., magnetic, and the dip of the bed here is about 33½°. But in going north-east the gangway curves gradually around to the north and west, while at the same time the dip of the bed gradually diminishes until at its face the gangway is running about N. 21° W., magnetic, and the dip of the bed is only 11°. For a distance of about seven hundred and fifty feet from the face of this gangway back towards the slope, the coal in the lift between this and the middle gangway is all worked out. For the remaining fifteen hundred feet the coal in this lift is nearly all solid.

The middle gangway extends north-easterly from the slope about seventeen hundred feet, and the lift between it and the upper gangway is exhausted for this whole distance, with the exception of some ten or eleven rooms stretching backward some four hundred and fifty to five hundred feet from the face, which are only half worked out.

The upper gangway was driven over two thousand feet north-easterly, and all the coal between it and the ground surface is exhausted. (1877)

Unfortunately, Goodyear (1877) did not identify which mine portal the structural features are associated with; therefore, although the geometric configuration of the workings can be approximated based on Goodyear's (1877) description, the location cannot be determined. Jenkins (1923) provided a description of the location of the underground workings that is much less detailed than Goodyear's (1877) description, but which compares closely to Goodyear's (1877) assuming a portal located near the intersection of Railroad Avenue and Laurel Street (second opening; Tetra Tech 1984). However, Jenkins (1923) refers to only one portal, located at the intersection of Railroad Avenue and Myrtle Street (third portal). This apparent discrepancy has resulted in further uncertainty as to the location of the underground workings.

Tetra Tech (1984) concluded that the extensive workings described by Goodyear (1877) were likely associated with the portal at the projected intersection of Laurel Street and Railroad Avenue (second portal). Tetra Tech (1984) notes that the workings associated with the third portal were closed in 1877, less than three years after the third portal was opened. Tetra Tech (1984) inferred that little coal was produced from the slope of the third opening, and that the workings associated with the third opening must not be very extensive. However, Tetra Tech (1984) notes the possibility that the slope from the third opening may have intersected the slope from the second opening, and that Goodyear's (1877) description could be tied to a reference point at the third opening. Tetra Tech (1894) concluded that the uncertainty of the location of the workings would not be resolved without subsurface investigations.

Another difficulty of determining the exact location of the underground workings is that the coal seam followed by the gangways is slightly folded. As reported by Goodyear (1877), the strike changes from N33°E (magnetic) at some point on the slope to N21°W (magnetic) at some point presumably near the northern end of the lower gangway. The corresponding dips of the coal seam are 33.5° northwest and 11° southwest (magnetic; Goodyear 1877). The rate of change of the strike and dip of the coal seam toward the northeast is not known. As a result, the exact geometric configuration of the underground workings cannot be ascertained.

Tetra Tech (1984) generated a map of the approximate location of the mine workings based primarily upon Goodyear's (1877) written description, assuming the second opening as the reference point. The Tetra Tech (1984) mine workings reconstruction is illustrated in Figure 2. According to Tetra Tech's (1984) reconstruction, underground workings extend from a portal near the projected intersection of Laurel Street and Railroad Avenue down a slope extending a lateral distance of approximately 640 feet northward. The lowest level of the mine is shown as extending an unknown distance northeast from near the base of the slope at a depth of approximately 400 feet below ground surface (bgs). The lower level referred to by Goodyear (1877) is mapped as extending northeast from the slope to just north of the intersection of Champion Street and Cornwall Avenue at an approximate depth of 300 feet bgs. The middle level and upper levels extend northeastward to near the intersection of State Street and Magnolia Street. The depth of the workings in the middle level is approximately 200 feet bgs. The depth of the shallowest workings associated with the upper level is not known, but is mapped as less than 100 feet bgs. (Tetra Tech 1984)

Walsh and Logan (1989) also generated a reconstruction of the Sehome Mine workings, based upon Goodyear (1877). This reconstruction depicts the mine workings at a somewhat different location than the reconstruction by Tetra Tech (1984), apparently due to a slight difference in the assumed location of the mine portal. The map prepared by Walsh and Logan (1989) shows the mine portal at a location somewhat southeast of the location assumed by Tetra Tech (1984); as a result, the gangways are mapped by Walsh and Logan (1989) as extending slightly less to the northeast than depicted by Tetra Tech (1984).

A geotechnical engineering investigation was performed by W.D. Purnell and Associates (1997) and BEK (1998) to determine subsurface conditions, including the depth and location of underground mine workings, in the area between Chestnut Street and Holly Street and Railroad Avenue and the alley immediately north of Railroad Avenue. As part of the investigation, a total of five geotechnical boreholes were drilled in the subject area (BEK 1998). Void spaces interpreted as Sehome Mine underground workings were encountered during drilling of three of the boreholes at depths ranging from 79 to 109 feet bgs (BEK 1998). Based upon the geotechnical drilling results and the description of the Sehome Mine workings provided by Goodyear (1877), BEK (1998) generated a reconstruction of the mine workings. As with the Tetra Tech (1984) reconstruction, the portal was assumed to be located near the projected intersection of Laurel Street and Railroad Avenue. However, on the BEK (1998) reconstruction, the gangways are mapped at locations significantly west of the gangway locations on the Tetra Tech (1984) map. This difference is attributed by BEK (1998) to a more abrupt change in strike and dip of the coal seam toward the north than that assumed by Tetra Tech (1984).

Little information is available regarding surface facilities at the Sehome Mine. Surface features reported to have been associated with the mine include two wharfs, bunkers, and a tramway completed in 1860 (Edson 1968). An “Old Coal Wharf” is depicted on the 1883 plat of the Bellingham Bay Coal Company property (Prather 1883) at a location on Bellingham Bay approximately 0.25 mile southwest of the third portal, just northeast of Pine Street between Railroad Avenue and Dock Street (now Cornwall Street). This same plat also shows a second wharf, labeled the “Sehome Wharf,” located on Bellingham Bay approximately 0.5 mile southwest of the third portal, near the projected intersection of Railroad Avenue and Beech Street. An “old railroad track” is shown linking the “Sehome Wharf” and the mine portal (Prather 1883). This “Sehome Wharf” is likely the wharf referred to by Goodyear (1877), who noted that the water in the immediate vicinity of the mine was too shallow to accommodate ships without constructing a very long wharf. The “old railroad track” (Prather 1883) appears to be the tramway that Goodyear (1877) described as extending slightly more than three quarters of a mile between the mine and the bunkers at the wharf. Bunkers were constructed at the “Sehome Wharf,” (Courtney 1950) and likely existed at the “Old Coal Wharf” as well. Courtney (1950) reports that the bunkers at the “Sehome Wharf” had a cleaning capacity of approximately 500 tons per day and a storage capacity of approximately 400 tons per day, and were capable of delivering 1,000 tons per day to ships. Goodyear (1877) describes the bunkers (apparently associated with the “Sehome Wharf”) as poorly designed, requiring re-handling of the coal after it passed the screens. Goodyear (1877) refers to an aboveground trestlework approximately 100 feet long that was located at the mine entrance. Approximate former positions of surface features associated with the Sehome Mine are depicted in Figure 2.

Little evidence of the historic mining operations remain today. A report prepared by the United States Smelting Refining and Mining Company (1958) for the Puget Sound Power and Light Company stated that “a search of the site in 1958 failed to find any evidence of the old mine... growth of the city has obliterated it.” Tetra Tech (1984) reported that no surface facilities or coal refuse embankments were found during their June 20, 1984, site visit to the Sehome Mine. As stated above, the second and third entrances of the Sehome Mine were graded over for the construction of railroad tracks and railroad roundhouse (circa 1890), respectively (Tetra Tech 1984). The area was used as a railroad roundhouse, maintenance, and storage facility from the 1910s to the 1950s (Whatcom Environmental Services 2002). The remains of the foundation of a roundhouse were reported to still be present at the location of the third portal in 1984 (Tetra Tech 1984).

An investigation and cleanup of petroleum-contaminated soil in the vicinity of the third opening was performed by Whatcom Environmental Services (2002). The buildings in the vicinity of the second and third portals associated with the railroad roundhouse, maintenance, and storage facility are reported to

have been torn down in the 1980s (Whatcom Environmental Services 2002). Fill in the area between the second and third portals was characterized as part of a geotechnical investigation (GeoEngineers 2003). Fill, which ranged in thickness between 1 and 10.5 feet, included coal fragments and coal “sand,” in addition to soil, wood, asphalt, concrete, bricks, and creosote treated timbers (GeoEngineers 2003).

The first opening, like the second and third openings, has not been positively located. As of 1984, the original portal was not open (Tetra Tech 1984; Kaldenbach 2003). It is likely that the original opening was located along the beach, and has been covered over by fill material subsequent to mine operations. Marine dredge fill and some fill from upland sources has been placed in the area at the base of the slope, including the area fitting the description of the location of the original portal. The fill was largely in place by the 1930s, although some filling continued into the 1970s (Hilardes 2004).

The areas of the “Old Coal Wharf” and the “Sehome Wharf” have been utilized for a variety of industrial purposes since the end of Sehome Mine operations in 1878. In the 1890s, additional construction of wharfs and docks, as well as placement of fill in the intertidal zone, began. Industrial uses of the area have included wood treatment and landfilling. The area that includes the “Old Coal Wharf” is currently referred to as the R.G. Haley International Corporation, Inc. site, and is the focus of a remedial investigation under the Washington State Department of Ecology (Ecology) Toxics Cleanup Program (Ecology 2004; GeoEngineers 2004). The area of the former “Sehome Wharf” is also the focus of an environmental investigation and cleanup (Cornwall Avenue Landfill site) under Ecology’s Toxics Cleanup Program (Ecology 2004). Fill material in the area includes coal detritus (GeoEngineers 2004).

Available information on the ownership of the Sehome Mine is limited. Soon after discovery, the Sehome Mine was purchased by a group of San Francisco capitalists including Fauntleroy, Calhoun, and Benham, who organized the Bellingham Bay Coal Company (Edson 1968). The Bellingham Bay Coal Company operated the mine until 1861, when the Union Coal Company of San Francisco bought a controlling interest in the mine (Pridgeon 1978). Information on the mine ownership after 1861 could not be located during the PA.

SITE OPERATIONS AND WASTE CHARACTERISTICS

The Sehome Mine operated from 1853 to 1878. The mine utilized the room and pillar method of coal extraction, in which pillars of coal are left behind to support the mine roof. Typically, approximately half the coal is removed and the rest left behind as pillars. As described by Goodyear (1877), at the Sehome Mine a slope was driven down the pitch of the coal seam, and nearly horizontal gangways were driven at four levels (“lowest,” “lower,” “middle,” and “upper”) along the strike of the coal seam. The

gangways were cut “with just enough rise to allow water to drain to the slope, and loaded cars could be easily drawn out” (Jenkins 1923). Along the gangways, 60-foot wide rooms were worked up the dip of the seam parallel to the slope, with 20-foot wide pillars left standing between them for support (Jenkins 1923).

Early operations reportedly were inefficient, resulting in low production. When the mine opening was located on the beach (first portal), the coal was transported out of the mine with wheelbarrows (Koert and Biery 1982). The stockholders voted in 1859 to raise \$100,000 to sink an improved slope, and to construct a wharf, coal bunkers, and a tramway from the slope to the bunkers (Edson 1968). Operation plans called for rail cars powered by horse and mule both underground and aboveground, and indicates that a steam hoist was used to haul the coal up the slope (Edson 1968).

As stated above, Goodyear (1877) noted that the coal seam is approximately 14 feet thick at the Sehome Mine, but “contains so much interstratified slate and ‘bone’ that all the coal has to be carefully sorted by hand before it is sent to market.” Goodyear (1877) further states that, for economic reasons, “for the last few years, only about seven feet in thickness of the upper part of the bed has been mined.”

The bulk of the Sehome Mine coal was shipped to San Francisco (Jenkins 1923).

Coal dust and debris generated during the mining were temporarily piled against the wall at the base of the rooms; this debris was eventually hauled out of the mine and “had to be dumped over the bank and in the course of a year several thousand tons were dumped” (Roth 1926). The coal contained varying amounts of sulfur, which was responsible for spontaneous combustion of the debris piles, both within and outside of the mine (Roth 1926). Results of a chemical analysis of “Bellingham Bay” coal by the United States Navy indicate sulfur content of 1.22% (Jenkins 1923). Refuse “dumps near the wharf” caught fire and burned for at least 15 years (Roth 1926).

Piles of debris within the mine are blamed for fires as well. In 1868, mine debris within the mine ignited by spontaneous combustion. The fire was brought under control only after the mine was flooded with water from Bellingham Bay (Jenkins 1923). The mine was pumped dry, and mining resumed nearly a year later. Sometime thereafter, the mine caught fire again, and was again flooded to extinguish the fire (Jenkins 1923). Another mine fire (cause not mentioned) was reported in late 1866 or early 1867 (Browne 1869). The fire was extinguished by flooding, preventing the resumption of mining until June 1867 (Browne 1869). Other mine fires are reported to have occurred between 1863 and 1866 (e.g., Edson 1968; Tetra Tech 1984).

START-2 ACTIONS

To obtain information about coal mining in the Bellingham/Lake Whatcom area, including the area of the Sehome Mine, START-2 reviewed numerous reports, maps, and other documents. In addition, START-2 conducted interviews with representatives of federal, state, and local agencies; representatives of academic institutions; and owners or representatives of properties in the vicinity of the former coal mining activities. A list of these data sources for the Bellingham/Lake Whatcom Coal Mines PA/pre-CERCLIS screening project is provided in Appendix A.

START-2 actions also included reconnaissance visits to the properties in the vicinity of the former mine on July 3, 2003, and February 10 and 11, 2004. Photographic documentation of the July 3, 2003 site visit is provided in Appendix B. No features associated with the former coal mining operations at the site were observed during the site visits. No sources of hazardous substances or evidence of contamination (e.g., stained soil, distressed vegetation) were noted during the site visits.

CONCLUSIONS

The Sehome Mine operated between 1853 and 1878. Over the course of the mine operation, coal and coaly waste rock were generated. Waste rock was disposed of at the surface at locations that are not specifically identified in available documents, but which likely are near the former mine portals and the “Old Coal Wharf” and the “Sehome Wharf.” Coal and/or coaly waste rock have been observed in the general area of the second and third portals (GeoEngineers 2003) and the “Old Coal Wharf” and the “Sehome Wharf” (GeoEngineers 2004). It is possible that heavy metals such as arsenic and mercury could be associated with this coaly material. However, based on available information, it does not appear likely that these potential sources would significantly impact environmental targets within the site’s range of influence. Mine portals and other features of historic mining operations have either been removed or covered by fill. The mine area has subsequently been developed. The timing of filling is not certain, but was likely soon after cessation of mining in 1878. No indications of former mining activities were apparent during the site visits.

Source: Maptech, Inc. 2001.

WASHINGTON



0 .75 1.5
Approximate Scale in Miles

BELLINGHAM/LAKE WHATCOM COAL MINES
Whatcom County, Washington

Figure 1
SITE VICINITY MAP
SEHOME MINE

Date:
9/24/04

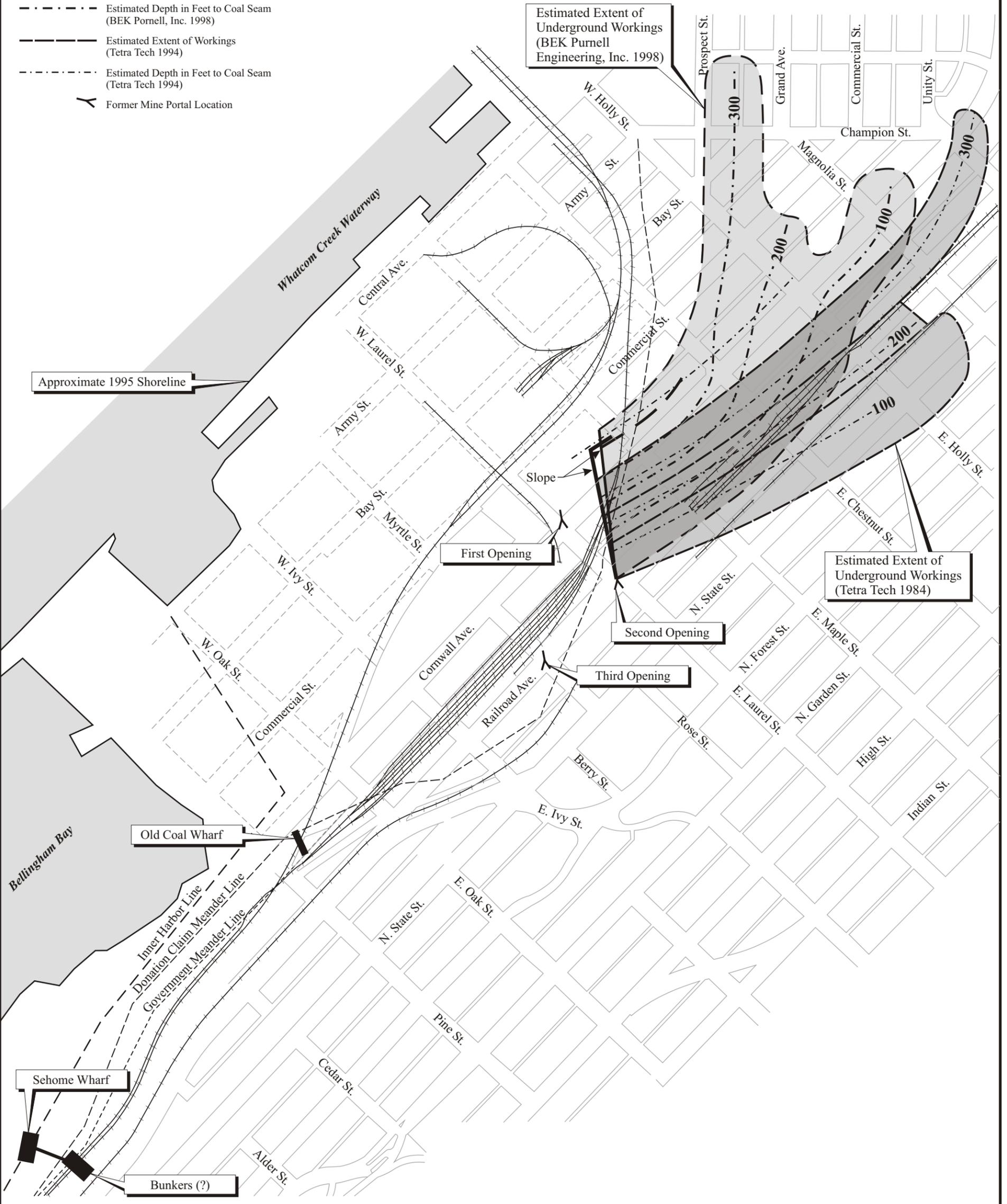
Drawn by:
AES

10:START-2\03010002\fig 1

Sources: Whatcom County 2003
 Prather 1883
 Tetra Tech 1984
 BEK Purnell Engineering, Inc. 1998
 Goodyear 1877
 USGS 1995



- Key:**
- Railroad Tracks
 - Estimated Extent of Workings (BEK Purnell, Inc. 1998)
 - Estimated Depth in Feet to Coal Seam (BEK Purnell, Inc. 1998)
 - Estimated Extent of Workings (Tetra Tech 1994)
 - Estimated Depth in Feet to Coal Seam (Tetra Tech 1994)
 - Former Mine Portal Location



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ecology and environment, inc.
 International Specialists in the Environment
 Seattle, Washington

BELLINGHAM/LAKE WHATCOM COAL MINES
 Whatcom County, Washington

0 200 400
 Approximate Scale in Feet

Figure 2
 SITE MAP
 SEHOME MINE

Date: 9/24/04
 Drawn by: AES
 10:START-2\03010002\fig 2

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APPENDIX A
PROJECT DATA SOURCES

PROJECT DATA SOURCES:

DOCUMENTS AND MAPS

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RESEARCH FACILITY CONTACTS

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210 Central Avenue
Bellingham, Washington 98225
Margaret Ziegler, Reference Librarian

Center for Pacific Northwest Studies/Washington State Archives: Northwest Regional Branch
Goltz-Murray Archives Building
Western Washington University
Bellingham, Washington 98225-9123

Washington State Department of Natural Resources
Division of Geology and Earth Resources
1111 Washington Street SE, Room 148
P.O. Box 47007
Olympia, Washington 98504-7007

APPENDIX B
PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH IDENTIFICATION SHEET

Camera: Kodak Max HQ Flash reusable camera

TDD No. 03-01-0002

Lens Type: 35 mm

Site Name: Sehome Mine

| Photo No. | Direction | By | Date | Time | Description |
|------------------|------------------|-----------|-------------|-------------|---|
| 1-1 | SW | ML | 7/9/03 | 1700 | Area near the projected intersection of Laurel Street and Cornwall Avenue (former first opening). |
| 1-2 | NW | ML | 7/9/03 | 1709 | Area near the projected intersection of Laurel Street and Cornwall Avenue (former first opening) from top of bluff at projected intersection of Laurel Street and Railroad Avenue). |
| 1-3 | SE | ML | 7/9/03 | 1712 | Area near the projected intersection of Laurel Street and Railroad Avenue (former second opening). |
| 1-4 | N | ML | 7/9/03 | 1720 | Area near the projected intersection of Railroad Avenue and Myrtle Street (former third opening). |

Key:

ML = Mark Longtine.
N = North.
NW = Northwest.
SE = Southeast.
SW = Southwest.



