

Appendix C
Site Visit Report



MEMORANDUM

Date: November 17, 2006
To: Iris Winstanley
From: Mark Dagele
Cc: Tina King
Subject: Trotsky site monitoring well inventory

Introduction

Tina King and Mark Dagele performed an inventory of known monitoring wells at the subject site on November 15, 2006. We briefly met with Rick Cabuco of Industrial Container Services (ICS) at his office on the site and were accompanied during portions of our inventory by an ICS employee (Jim).

During our visit, we located four monitoring wells. These wells appear to correspond with monitoring well locations shown on a figure prepared by Hart-Crowser labeled "J-1659, Figure 1" and dated November 1987. An offsite, upgradient well, B-3, is reported to have been installed and since destroyed by the construction of the current 1st Avenue South bridge; the site of this well was not visited.

In all cases, the wells consisted of white, 2-inch diameter PVC well casing that was originally installed in above-ground or flush mount protective casing. With the exception of well B-1, none of the wells was labeled or otherwise identified (Well B-1 was equipped with a PVC slip cap which was labeled "B-1"); other wells were identified based on their locations shown on the above-referenced figure. With the exception of B-1, all wells were installed on the concrete paved portion of the property. Well B-1 was installed just off the pavement (toward the adjacent slip) just beyond a low (~4-ft) fence.

All wells were sounded for total depth (TD) and depth-to-water (DTW) between 10:50 AM and 11:30 AM. During this time, the tidal level in the slip and Duwamish River adjacent to the site was relatively high. All well depth measurements are presented in feet relative to the highest point of the PVC casing (ft BTOC). Conditions during the visit were cool, rainy, and breezy.

Details of each of the four on-site wells are presented below:

Well B-1

TD: 22.82 ft BTOC
DTW: 7.35 ft BTOC (response of water level indicator suggested possible high salinity)

Notes: Stick-up completion consisting of locked 4-inch steel protective casing (approximately 1-ft stickup). PVC casing capped with slip cap. Well key provided did not fit padlock, so had to

use bolt cutters to remove padlock; replaced with steel tamper-proof seal provided by ICS (no. 881457). Well installed just outside of low fence on unpaved area in blackberries.

Well B-2

TD: 23.97 ft BTOC

DTW: 7.13 ft BTOC

Notes: Stick-up completion consisting of 4-inch steel protective casing (approximately 8-in stickup). Cover consisted of approximately 6-inch diameter by 5-ft long steel bollard placed over protective casing. The top of the bollard was closed with a welded steel plate. The PVC well itself was sealed with a compression cap (not locked). This well is located near back gate to facility and is installed in concrete paved area.

Well B-4

TD: 21.40 ft BTOC

DTW: 11.12 ft BTOC

Notes: Subgrade completion in cast iron vault. Vault is broken (much of rim missing) and has no cover. PVC well was uncapped and cut flush with base of vault. Entire installation is in a concrete paved area.

Well B-5

TD: 21.90 ft BTOC

DTW: 7.69 ft BTOC (response of water level indicator suggested possible high salinity)

Notes: Subgrade completion in cast iron vault. Vault is broken (much of it is missing) and has no cover. PVC well was uncapped and broken flush with base of vault. Entire installation is in a concrete paved area.

Conclusions/Recommendations

Wells B-4 and B-5 are judged to be unsuitable for water quality monitoring. They appear to have been damaged and left open for an extended period of time. Staining in the PVC casing suggests that water and contaminants have likely run down into the wells over the years. These wells may be useable for water level elevation measurements only. In this case, the well completions should be replaced by a driller (licensed per WAC 173-162) so that they can be properly sealed and then properly maintained. Otherwise, these wells should be abandoned per WAC 173-160.

Wells B-1 and B-2 appear to be in relatively good condition and suitable for groundwater quality monitoring. Well B-1 should be locked. The steel protective casing on Well B-2 should be retrofitted with a locking steel cap and the well should be properly labeled.

Other notes

According to discussions with Rick Cabuco and ICS employee Jim, the entire site is paved and is designed to drain to a sump or sumps where it is pumped to an on-site treatment system and then to the sanitary sewer system. Treatment includes pH adjustment, oil removal, and flocculation. They indicated that this “closed” drainage system allows residual drum contents to be discharged anywhere without risk of it draining off site. In many areas, oil and sheens were evident on the runoff and in puddles on the site. In many areas, the concrete surface appears old and eroded and the concrete appears to have been installed during a number of different periods.

The slip is not readily visible from the ICS property as it is well screened by blackberries. It is somewhat visible from the adjacent property to the east and is reported to be more visible from the property on the north shore of the slip. At the time of the site visit, the water level in the slip was high and no outfalls were visible. According to Jim, there are two outfalls that discharge periodically into the slip. One outfall is at the head of the slip and discharges stormwater from West Seattle as well as overflow from the West Seattle water tower. The other outfall is on the south side of the slip approximately 25 feet west of well B-1; this outfall discharges surface water from Skyway, Washington.

**Site Visit: Industrial Container Services
November 15, 2006**



Photo 1: Well B-4



Photo 2: Well B-4



Photo 3: Well B-4



Photo 4: Well B-5