

# Northwest Archaeological Associates, Inc.

Cultural Resources Management Services  
5418 20th Avenue NW, Suite 200, Seattle, WA 98107

October 15, 2008

Envirocon Inc.  
3330 NW Yeon Avenue, Suite 240  
Portland, OR 97210

Attn: Charles Bird, Project Manager

RE: Cultural Resources Monitoring for the Former Unocal Edmonds Bulk Fuel Terminal Site Project, Snohomish County, Washington

Envirocon on behalf of the Chevron Corporation, contracted Northwest Archaeological Associates, Inc. (NWAA) to monitor construction activities at the former Unocal Edmonds Bulk Fuel Terminal Site (the Project) commencing on August 1, 2008 (Figures 1 and 2). No significant cultural resources were observed during the monitoring. The following provides a summary of archaeological monitoring activities for the above referenced project.

## ***Project Background***

The Union Oil Company of California (Union Oil) entered into an Agreed Order (No. DE 4460) with the Washington Department of Ecology to conduct an interim remedial action at the former Unocal Edmonds Bulk Fuel Terminal Site in Edmonds, Washington. Remediation work at the Project began in 2001. The Bulk Fuel Terminal Site occupied two main landforms: a steep hillside designated the Upper Yard, and a flat former tideland at the base of the hill designated the Lower Yard. Archaeological monitoring of test pit excavations in the Upper Yard took place in 2002 and no significant cultural resources were identified (Cole 2002). The former Upper Yard has since been developed.

In 2008, NWAA was retained by Envirocon, on behalf of the Chevron Corporation to develop a Cultural Resources Monitoring and Discovery Plan and to monitor construction activities in the Lower Yard associated with the 2008 interim remedial action. The proposed action included excavation of final areas of contamination in the Lower Yard, as well as removal of contaminated sediment in Willow Creek at the north edge of the Project (Figure 2). Sediment removal activities at Willow Creek required construction of a coffer dam both upstream and downstream of the proposed work area, excavation of 500 linear feet of contaminated sediment, and placement of clean backfill.

## ***Archaeological Monitoring***

NWAA archaeologist Michele Parvey met with Envirocon Project Manager Charles Bird and ARCADIS Project Geologist Scott Zorn on August 1, 2008 and discussed the responsibilities of the archaeological monitors and the protocol to be followed if construction activities identified any potential cultural resources (refer to the Cultural Resources Monitoring and Discovery Plan for full details). All parties agreed that the steps outlined in the Plan would be strictly adhered to in the case of discovery. Envirocon and/or ARCADIS were responsible for advising the Monitor

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any potential cultural resources (refer to the Cultural Resources Monitoring and Discovery Plan for full details). All parties agreed that the steps outlined in the Plan would be strictly adhered to in the case of discovery. Envirocon and/or ARCADIS were responsible for advising the Monitor Supervisor and/or the Monitor when construction activities requiring monitoring would take place and were also responsible for advising when monitor services were no longer required. The Monitor remained on-site unless otherwise advised.

Monitoring of the Project began on August 1, 2008 and continued through September 11, 2008. The Monitor completed an NWAA Daily Work Record summarizing the weather conditions, construction activities, and any other pertinent observations made while on duty. Daily photographs were taken documenting construction activities.

Monitoring focused on all construction activities associated with removal of contaminated sediments from Willow Creek and excavation of six areas in which native sediments would potentially be disturbed (Figure 2). According to ARCADIS Project Geologist Scott Zorn, the Lower Yard area was covered in roughly 8 to 10 feet of fill between the 1920s and 1950s. Excavation in locations B7 and B19 removed fill to between 5 and 6 feet below surface and did not encounter native sediments (Figures 3 and 4). Location B1 was excavated from approximately 12 to 15 feet below surface and sediments included 11 feet of fill on top of native marsh deposits of peat and blue clay (Figures 5 and 6). Locations B8 and B9 were excavated to maximum depths of about 18 feet below surface and sediments consisted of approximately 11 to 12 feet of fill overlying gravelly beach deposits consisting of sand and driftwood (Figures 7 and 8). An approximately 86 feet long, 45 feet wide swath between locations B3 and B20 designated the "Asphalt Warehouse" was excavated to a maximum depth of 15 feet below surface. Sediments at this location included 12 feet of fill overlying a 2 to 4 inch thick grass matt on top of sand intermixed with driftwood (Figure 9). Willow Creek is a man-made drainage constructed by Unocal in the 1920s to drain the marsh located to the east. Excavation of Willow Creek removed approximately 500 linear feet of sediment to roughly 12 feet below surface. Sediments removed included 4 to 7 feet of fill overlying blue clay (Figures 10 and 11).

On September 11, 2008, Envirocon advised that all disturbance of native sediment was complete and the Monitor was no longer required. No cultural resources were identified during construction activities associated with native sediment disturbance.

If you have any questions or comments please do not hesitate to contact me.

Sincerely,



Michele Parvey  
Project Archaeologist

cc: Scott Zorn, ARCADIS Project Geologist  
Department of Archaeology and Historic Preservation  
Jonathon Smith, Project Manager Regulatory Branch USACE

**References Cited**

Cole, Stephen C

- 2002 Archaeological Monitoring at the Unocal Bulk Facility (Edmonds), Upper Yard. Report prepared for Maul, Foster & Alongi, Inc., Seattle by Northwest Archaeological Associates, Inc., Seattle.

Northwest Archaeological Associates, Inc.

- 2008 Cultural Resources Monitoring and Discovery Plan for the Former Unocal Edmonds Bulk Fuel Terminal Site Project, Snohomish County, Washington. Plan prepared for Envirocon and ARCADIS on behalf of the Chevron Corporation by Northwest Archaeological Associates, Inc., Seattle, NWAA report WA08-061.

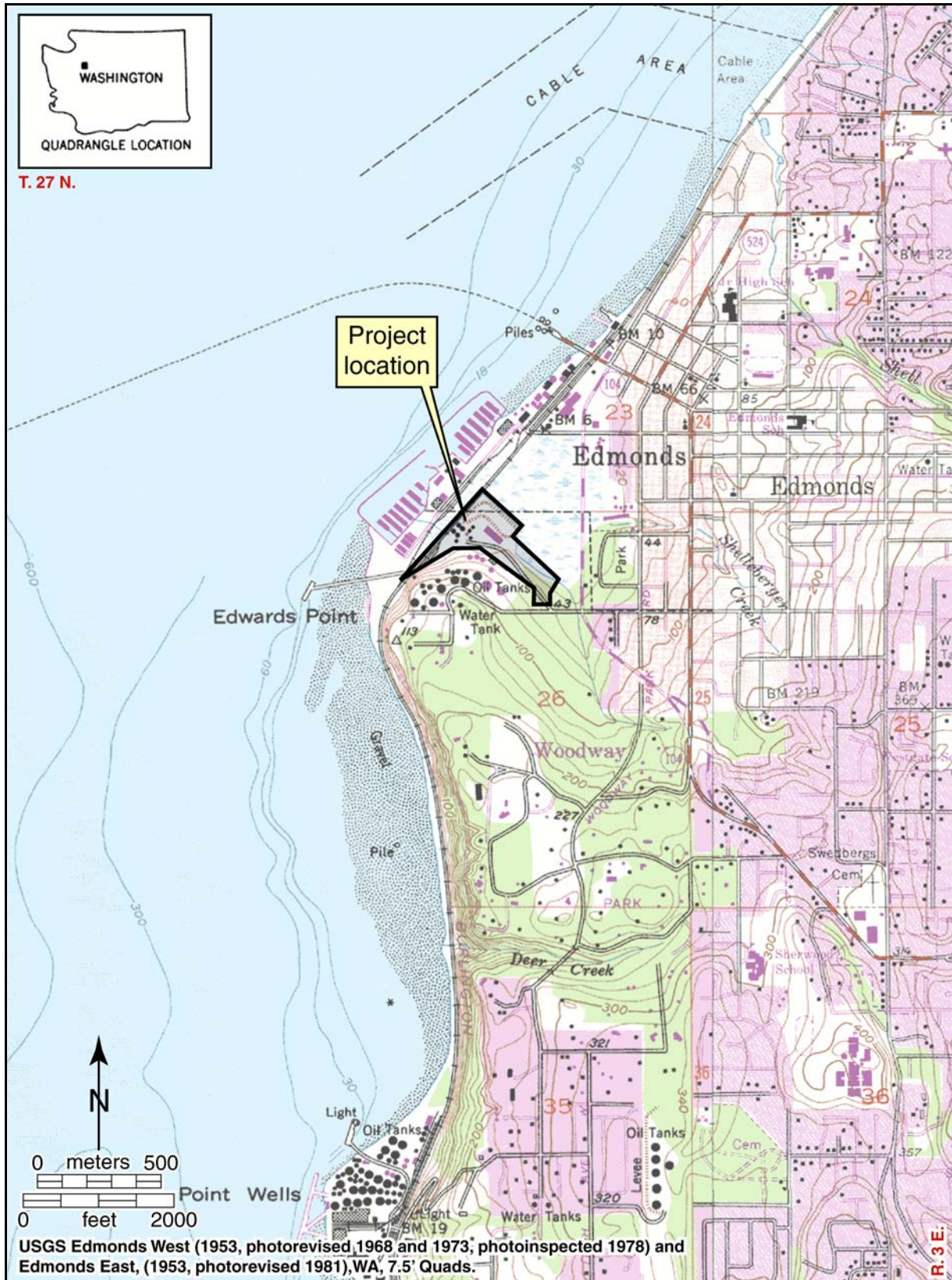


Figure 1. Project location.

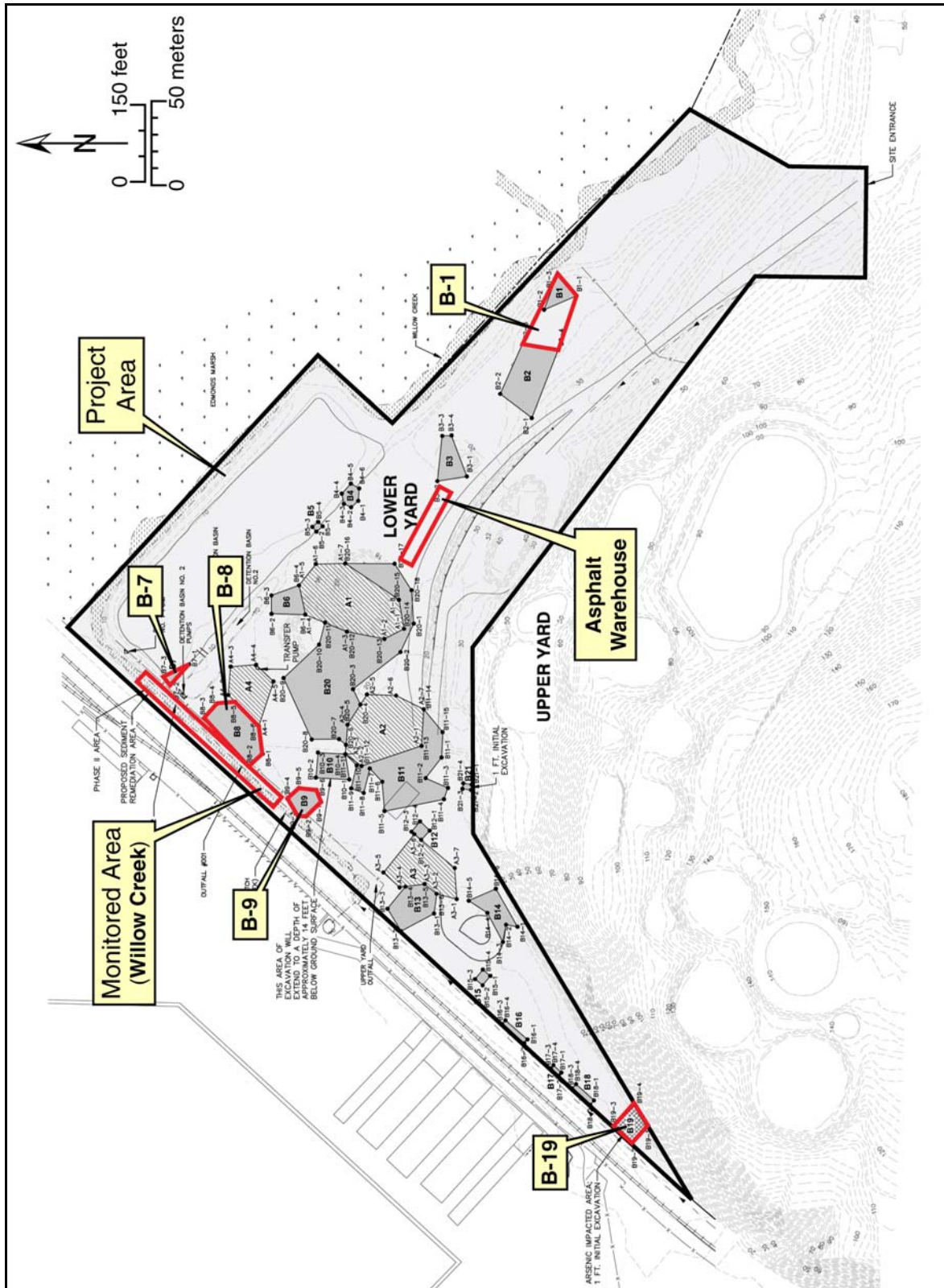


Figure 2. Project map showing proposed excavation areas and areas that required archaeological monitoring.



Figure 3. Overview of excavation at location B-7, depth at five feet below surface; view to the north.



Figure 4. Overview of excavation at location B-19, depth at six feet below surface.



Figure 5. Overview of excavation at location B-1, depth at eleven feet below surface; view to the southwest.



Figure 6. Close-up of native peat deposit from excavation location B-1, depth at twelve feet below surface.



Figure 7. Overview of excavation at location B-8, depth at nine feet below surface; view to the south.



Figure 8. Overview of excavation at location B-9, depth at twelve feet below surface; view to the southwest.





Figure 9. Overview of "Asphalt Warehouse" excavation location, depth at eleven feet below surface; view to the northeast.



Figure 10. Overview of excavated Willow Creek, depth at twelve feet below surface; view to the northeast.



Figure 11. Close-up of excavated Willow Creek, depth at twelve feet below surface.