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ARCHAEOLOGY & HISTORY

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DATE: March 1, 2019

SUBJECT: Summary of Results of Archaeological Survey for the Canby
Pit Phase 4 Aggregate Surface Mining Operation, Clackamas
County, Oregon

This report presents a summary of results of an archaeological survey and records review of the proposed Canby Pit Phase 4 Aggregate Surface Mining Operation located just over a half mile south of the small community of Barlow in west central Clackamas County, Oregon. Plans call for aggregate mining operations to be undertaken on a 99-acre parcel of land situated between Highway 99E and S. Barlow Road and adjacent to active mining operations by Cadman Materials, Inc. to the north and east. The overall Project Area is defined as the mining site and the adjacent 1500' impact area beginning at the mining area boundary (Figure 1).

The archaeological survey for this project was undertaken to determine if potentially significant early historical or prehistoric archaeological resources are present within the mining site that may be impacted by this project, and to ensure compliance with Section 106 of the National Historic Preservation Act of 1966 (as amended) and with Oregon state laws requiring identification and protection of archaeological resources.

The archaeological survey was undertaken on January 18 and 25, 2019 by Robert R. Musil and Kevin McCornack of Heritage Research Associates, Inc.

Project Location and Setting

The Cadman Canby Pit Phase 4 mining site is located about a half mile south of the small community of Barlow, Oregon. The property is bounded on the

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east by S. Barlow Road, on the west by Highway 99E, and on the south by a sinuous tree-lined terrace scarp. Specifically, the mining site is located in a portion of the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$, SW $\frac{1}{4}$ of the SE $\frac{1}{4}$, and a portion of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 7, T4S, R1E, W.M. Most of the mining site is relatively flat, with elevations ranging from 106 feet above sea level in the southeast corner to 97 feet at the foot of Highway 99E along western boundary. However, a small bluff extends out from the higher terrace along the southern edge of the project that rises to an elevation of 155 feet.

Prior to the arrival of Euro-Americans to the valley in the mid-1800s, these broad fluvial terraces supported oak savanna and open prairie, with riparian gallery forests and seasonal wetlands and ponds. Native American populations used periodic burning to manage these habitats by enhancing the growth of bulbs, such as camas, and facilitating the harvest of seeds, acorns, hazelnuts, berries, and insects. The use of fire by the Native Americans is thought to have changed the pre-fire habitat in the Willamette Valley from a forested scrub-shrub wetland, to a maintained verdant seasonally-wet prairie throughout most of the valley.

The 1853 cadastral survey plat for T4S, R1E shows land encompassed by the current mining site as prairie, with woodlands on the upper terrace to the south (Ives 1852). A reconstruction of historical vegetation in the Willamette Valley derived from General Land Office land survey data from the 1850s shows the mining site as seasonally wet, with upland forests covering the upper terrace to the south. (Christy and Alverson 2011; Pope 2013). The arrival of Euro-American settlers resulted in the introduction of agricultural practices that altered the original vegetation patterns in the valley. Today, much of the Willamette Valley and the surrounding low foothills are dominated by cities, urban sprawl, and farmland, with most, if not all, of the native prairies altered by clearing, burning, and agriculture.

The mining site encompasses eight tax lots covering approximately 99 acres between S. Barlow Road and Highway 99E. Most of the mining site consists of relatively low flat land, with a small portion of the higher terrace to the south jutting out into the mining site. The slopes of this higher bluff are covered by trees, with a house located on top of the bluff. This bluff will not be included as part of the gravel mining operation. In addition to the house on the bluff, there are sheds located in the southwest and northwest corners of the property and a farmstead complex with several buildings situated at the eastern edge of the mining site on the Cha and Lee properties.

For the most part the ground within the overall mining site consists of grass fields or pastures divided by fences that in most places are lined by trees and/or brush. In addition there are several ditches, with adjacent brush-covered earthen berms, and a small pond located in the project. The eastern half of the Cha property consists of plots of strawberries, with a couple plots covered by sheets of black plastic and one plot recently plowed. The other tax lots are covered by thick grass or moss that greatly reduced ground

visibility. However, there were numerous rodent backdirt mounds and other scraped areas scattered across the various parcels that provided exposures of bare ground for inspection. Additionally, a small pond and ditch on the Yoder property has recently been reexcavated and the adjacent piles of excavated dirt provided extensive exposures of mineral soil for inspection.

The mining site slopes gently to the south, and areas of standing water were present at the time of the survey in the southeastern and southwestern corners of the property at the foot of the higher terrace. Willows have grown up in the wet area in the southwest corner of the Blumenkron property near one of the sheds.

Records Search

A review of the records on file at the State Historic Preservation Office (SHPO) in Salem, the agency that houses the official archaeological site records for the State of Oregon, indicate that no prehistoric or early historical archaeological sites have been recorded within the Project Area, which is defined as the mining site and the adjacent 1500' impact area beginning at the mining area boundary. The SHPO database does indicate that three prehistoric sites (35CL200, 35CL273, and 35CL274) have been recorded, and five archaeological surveys, one testing project, and three monitoring projects have been carried out within one mile of the mining site; these sites are, however, located outside the mining site and will not be affected by the proposed mining. Two sites—35CL200 and 35CL274—are located within the 1,500-foot impact area but both are on higher ground on a topographic surface distinct from the mining area.

There are no archaeological or cultural sites listed on the Clackamas County Goal 5 Inventory.

Historical Maps and Aerial Photographs

The earliest USGS map that covers the mining site is the 1939 Molalla, Oregon 15' quadrangle. This map shows a building in the northwest corner and two structures along S. Barlow Road. The words "Maplewood Grange" were placed on the mining site on this map, but the grange is located about 0.25 miles to the southwest along Highway 99E closer to Aurora. A 1953 USGS aerial photograph also shows a shed in the northwest corner of the project, the farmstead along S. Barlow Road, and the location the Maplewood Grange along Highway 99E. The 1955 USGS 15' quadrangle shows several buildings associated with the farmstead, but does not show the shed in the northwest corner along the highway.

Both the 1970 USGS air photo and the 1955 USGS 15' quadrangle that was photorevised in 1970 show a complex of buildings at the farmstead and a different shed in the northwest corner of the mining site. A 1978 USGS aerial photograph shows the

farmstead and the same shed, with an additional shed situated in the same location as the earlier shed shown on the 1953 air photo. In addition, it appears that most of the ditches were in place on the property by 1978. Later aerial photographs of the mining site do not show much change between 1978 and 2018, other than the construction of a house on the bluff around 2000 and the addition of a small shed in the southwest corner in 2003.

Results of Survey

Archaeological fieldwork for this project was conducted in January of 2018. The fieldwork consisted of a pedestrian survey of approximately 99 acres by two archaeologists walking parallel transects back and forth across the property. The transects were spaced 20 meters apart and oriented north to south. Ground visibility was mostly obscured by a thick grass and moss cover averaging around 2-5% overall, although other areas around the livestock sheds had been heavily churned providing larger (although muddy) exposures of bare ground. These disturbed areas and the rodent backdirt mounds and scraped areas scattered across the properties were examined closely during the survey.

The pedestrian survey undertaken for this project did not result in the discovery of any evidence for prehistoric or early historical archaeological materials or deposits. The only items observed during the survey were farm equipment and other farm-related items noted around the farmstead and the sheds that are associated with agricultural uses of these structures over the last decades of the twentieth century.

Summary and Recommendations

An archaeological survey of the Canby Pit Phase 4 Aggregate Surface Mining Operation was undertaken in January of 2019 by a field crew from Heritage Research Associates, Inc. The mining site encompasses 99 acres in eight separate tax lots between S. Barlow Road and Highway 99E. The project is bordered to the north and east by Cadman gravel mining operations. For the most part, the mining site consists of grass fields or small farmed plots, with sheds located in the southwest and northwest corners and a farmstead complex situated along S. Barlow Road.

No evidence of artifacts, cultural features, or sites relating to early historical or prehistoric activity was observed during the survey. The mining site is low and flat, and located just above the 100-year floodplain on ground that was designated as seasonally wet prairie during the cadastral survey of Section 7 in the 1850s. The project lacks features likely to have attracted sustained settlement by Native Americans, although it may have supported resources for seasonal harvest. Based on the nature of the mining site, it is considered unlikely that significant cultural resources are present. In view of the negative results of this survey, no further archaeological investigations are recommended for this project.

However, two recorded archaeological sites are present within the 1,500-foot impact area around the mining site. No actions are anticipated within this impact area that would affect those archaeological sites.

There is always a chance that ground disturbing activities may expose previously undiscovered cultural deposits or materials that are early historical or prehistoric in age. In anticipation of such a find, an Inadvertent Discovery Plan (IDP) should be put in place prior to ground disturbance to ensure actions and notification in compliance with Oregon State law (ORS 97.740 to 97.760, 358.905 to 358.955, and 390.235) that requires that work in the vicinity of such finds be suspended immediately. The State Historic Preservation Office (SHPO) should be notified, and a qualified archaeologist should be called in to evaluate the discovery and to recommend subsequent courses of action in consultation with the appropriate tribes and SHPO.

References Cited

Christy, John A., and Edward R. Alverson

- 2011 Historical Vegetation of the Willamette Valley, Oregon, circa 1850. *Northwest Science*, Vol. 85, No. 2.

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- 1852 Plat of Survey, T4S, R1E, W.M. Bureau of Land Management Archives, Portland.

Pope, Johnathon

- 2013 Willamette Valley Pre Settlement Vegetation 1850. Electronic document, <http://data.basin.org/maps/new#datasets=ec12d24283554cb68c2de68c4c10dd2b>, accessed 12-27-2018.

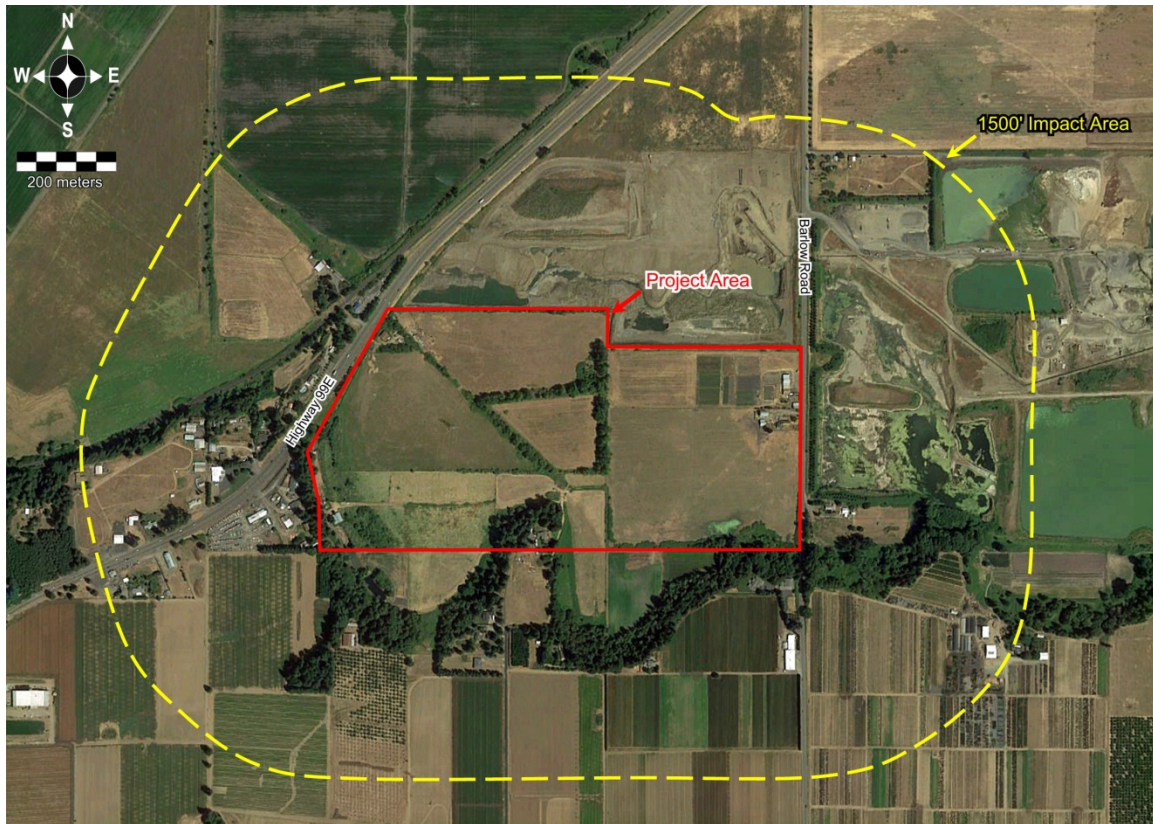


Figure 1. Location of the Canby Phase 4 Aggregate Surface Mining Operation mining site (in red) with the additional 1,500-foot impact area bordering the mining site(adapted from a July 6, 2018 GoogleEarth aerial photograph).

Inadvertent Discovery Plan for Cultural Resources

Canby Pit Phase 4 Aggregate Surface Mining Canby Vicinity, Clackamas County, Oregon T4S, R1E, portions of Section 7, W.M.

Cadman Materials, Inc. proposes to conduct mining and excavation on a 99-acre site, all of which has been zoned Quarry and Mine Operation (“QM”), in the Canby vicinity. The project is known as the Canby Pit Phase 4 Aggregate Surface Mine. Archaeological investigations focused on the project area indicate that significant archaeological or historical sites are unlikely to be present in the proposed mining area. Given the low, flat terrain located just above the 100-year floodplain on ground that was designated as seasonally wet prairie during the cadastral survey of Section 7 in the 1850s, it is considered highly unlikely that the proposed mining area contains archaeological materials that would rise to the level of potential eligibility for inclusion in the National Register of Historic Places. The project lacks features likely to have attracted sustained settlement by Native Americans, although it may have supported resources for seasonal harvest.

As a precaution and to ensure compliance with state law, this inadvertent discovery plan provides a protocol for proper procedure and notification in the event that cultural resources are encountered during ground-disturbing activities.

This Inadvertent Discovery Plan (IDP) should be followed if cultural materials including human remains are encountered during construction.

Protocol for coordination in the event of inadvertent discovery

- In the event of an inadvertent discovery of possible cultural materials, including human remains, all work will stop immediately in the vicinity of the find. A 30-meter (100-ft) buffer should be placed around the discovery with work being able to proceed outside of this buffered area unless additional cultural materials are encountered.
- The area will be secured and protected.
- The project manager/land manager will be notified. The project/land manager will notify the State Historic Preservation Office (SHPO). If possible human remains are encountered, the Oregon State Police, Commission on Indian Services (CIS), SHPO, and appropriate Tribes will also be notified.

Oregon State Police: Chris Allori 503-731-4717

CIS: Karen Quigley 503- 986-1067

Appropriate Tribes: Grand Ronde, Siletz, and Warm Springs

SHPO: Dennis Griffin 503-986-0674, or

John Pouley 503-986-0675

- No work may resume until consultation with the SHPO has occurred and a professional archaeologist is able to assess the discovery.

- If human remains are encountered, do not disturb them in any way. *Do not call 911*. Do not speak with the media. Secure the location. Do not take photos. The location should be secured and work will not resume in the area of discovery until all parties involved agree upon a course of action.
- A professional archaeologist may be needed to assess the discovery and they will consult with SHPO and appropriate Tribal Governments to determine an appropriate course of action.
- Archaeological excavations may be required. This is handled on a case by case basis by the professional archaeologist and project manager, in consultation with SHPO and appropriate Tribes.

When to stop work

- Construction work may uncover previously unidentified Native American or Euro-American artifacts. This may occur for a variety of reasons, but may be associated with deeply buried cultural material, access restrictions during project development, or if the area contains impervious surfaces throughout most of the project area which would have prevented standard archaeological site discovery methods.
- Work must stop when the following types of artifacts and/or features are encountered:

Native American artifacts may include (but are not limited to):

- ✓ Flaked stone tools (arrowheads, knives scrapers etc.)
- ✓ Waste flakes that resulted from the construction of flaked stone tools
- ✓ Ground stone tools like mortars and pestles
- ✓ Layers (strata) of discolored earth resulting from fire hearths. May be black, red or mottled brown and often contain discolored cracked rocks or dark soil with broken shell
- ✓ Human remains
- ✓ Structural remains- wooden beams, post holes, fish weirs

Euro-American artifacts may include (but are not limited to):

- ✓ Glass (from bottles, vessels, windows etc.)
- ✓ Ceramic (from dinnerware, vessels etc.)
- ✓ Metal (nails, drink/food cans, tobacco tins, industrial parts etc.)
- ✓ Building materials (bricks, shingles etc.)
- ✓ Building remains (foundations, architectural components etc.)
- ✓ Old Wooden Posts, pilings, or planks (these may be encountered above or below water)
- ✓ Remains of ships or sea-going vessels, marine hardware etc.
- ✓ Old farm equipment may indicate historic resources in the area
- ✓ Even what looks to be old garbage could very well be an important archaeological resource

When in doubt, call it in!

Proceeding with construction

Construction can proceed only after the proper archaeological inspections have occurred and environmental clearances are obtained. This requires close coordination with SHPO and the Tribes.

- After an inadvertent discovery, some areas may be specified for close monitoring or “no work zones.” Any such areas will be identified by the professional archaeologist to the Project Manager, and appropriate Contractor personnel.
- In coordination with the SHPO, the Project Manager will verify these identified areas and be sure that the areas are clearly demarcated in the field, as needed.

