

Bonneville Power Administration
Geodetic Control Data Sheet

Station: WM024 (224)
 Project: Wallula-Smiths Harbor-McNary
 Section: NW 1/4 11 Township: 6 North Range: 31 East Meridian: Willamette
 County: Walla Walla State: WA USGS Quad: Wallula, Washington
 Surveyor: M R Heidecke Date Surveyed: July, 2001

Instrument:

The horizontal coordinates and orthometric elevation were established by GPS observations using six Trimble 4000 SSI dual frequency receivers with Compact L1/L2 antennae with ground plane.

Adjustment:

The Basis of Coordinates for this survey is the Washington State Coordinate System, South Zone, NAD 83 (1998). The horizontal component of the least squares adjustment was constrained by holding NGS Stations B 340 (A), B 502 (B), PENDLETON (B), STANFIELD EAST BASE RESET (B), and BURDEN (B). The vertical component of the least squares adjustment was constrained by holding NGS Benchmarks B 340 (First Order Class II), B 502 (First Order Class II), BURDEN (Second Order Class II), V 203 (Second Order Class 0), G 640 (First Order Class I). The elevation for point 106, 201, 249, and 255 were determined by differential leveling from G 640, D 502, E 525 and F 431 respectively and held.

Horizontal Datum: NAD83 (1998) Linear Unit: U.S. Survey Feet
 Vertical Datum: NAVD88 Linear Unit: U.S. Survey Feet

| | |
|---|---|
| Latitude: <u>N 46-00-57.43081</u> | Longitude: <u>W 118-54-24.30458</u> |
| US State Plane Coordinate System: <u>Washington South Zone - 4602</u> | |
| Northing: <u>253,015.314</u> | Easting: <u>2,045,172.904</u> |
| Orthometric Elevation: <u>1374.19</u> | Ellipsoid Height: <u>1303.90</u> |
| Combined Factor: <u>0.99990140</u> | Convergence: <u>- 1-09-26</u> |
| Confidence: 95% Confidence ("1.96 Sigma") Values | |
| <u>Northing-0.011</u> | <u>Easting-0.008</u> <u>Elevation-0.099</u> |

Monumentation: BPA 3/4-inch Aluminum Cap on 5/8-inch aluminum rod, flush with ground.
 Stamping: U.S.D.O.E. Bonneville Pwr. Adm., WM024 - FEC-01 - ATB - GPS

To-Reach Description:

Begin on Washington State Highway #12 at the Washington State Truck Weigh Station at Wallula Junction. Drive west on Washington State Highway #12, 0.1 miles to the intersection of Hatch Grade to the left (south). Drive southeasterly on Hatch Grade Road 1.5 miles to intersection of BPA Lower Monumental- McNary 500kV transmission line. Continue southeasterly on Hatch Grade Road 1.0 mile to intersection of Braden Ranch Road to right (south). Drive south on Braden Ranch Road 0.4 miles to intersection of a semi-permanent wheat field access road to the right (west). Drive southwesterly on the private wheat field access road 0.5 miles to a fork, take right fork northwesterly 0.8 miles to a fork. The left fork is graded and graveled road. Drive the graveled road 0.3 miles to station. Station is 25 feet left of centerline of the gravel road.

Witness post is a yellow carsonite marker inscribed with BPA logo, bearing and distance to station.

RECEIVED BY
 Umatilla County Surveyor
 Date _____
 Rec'd By _____
 No. 02-19-9