



Lea Bond - NOAA Affiliate &lt;lea.bond@noaa.gov&gt;

**OPUS solution : 72772651.23o OP1696007424229**

1 message

opus <opus@ngs.noaa.gov>  
Reply-To: ngs.opus@noaa.gov  
To: lea.bond@noaa.gov

Fri, Sep 29, 2023 at 10:11 AM

FILE: 72772651.23o OP1696007424229

**NGS OPUS SOLUTION REPORT**  
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All computed coordinate accuracies are listed as peak-to-peak values.  
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: [lea.bond@noaa.gov](mailto:lea.bond@noaa.gov) DATE: September 29, 2023  
RINEX FILE: 7277265p.23o TIME: 17:11:06 UTC

SOFTWARE: page5 2008.25 [master294.pl](#) 160321 START: 2023/09/22 15:45:00  
EPHEMERIS: igr22805.eph [rapid] STOP: 2023/09/22 21:34:00  
NAV FILE: brdc2650.23n OBS USED: 13903 / 14863 : 94%  
ANT NAME: TRMR10 NONE # FIXED AMB: 61 / 66 : 92%  
ARP HEIGHT: 1.550 OVERALL RMS: 0.015(m)

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000) ITRF2014 (EPOCH:2023.7254)

X:	-2718365.705(m)	0.012(m)	-2718366.837(m)	0.012(m)
Y:	-4311936.015(m)	0.013(m)	-4311934.289(m)	0.013(m)
Z:	3820943.629(m)	0.014(m)	3820943.865(m)	0.014(m)

LAT:	37 2 24.86962	0.012(m)	37 2 24.89248	0.012(m)
E LON:	237 46 17.45699	0.005(m)	237 46 17.38099	0.005(m)
W LON:	122 13 42.54301	0.005(m)	122 13 42.61901	0.005(m)
EL HGT:	-25.294(m)	0.019(m)	-25.835(m)	0.019(m)
ORTHO HGT:	8.384(m)	0.057(m)	[NAVD88 (Computed using GEOID18)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 10)	SPC (0403 CA 3)
Northing (Y) [meters]	4099614.783	561377.140
Easting (X) [meters]	568610.825	1846233.740
Convergence [degrees]	0.46476111	-1.05823333
Point Scale	0.99965799	1.00000557
Combined Factor	0.99966196	1.00000954

US NATIONAL GRID DESIGNATOR: 10SEF6861199615(NAD 83)

**BASE STATIONS USED**

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DN7544	P176 MILLSCREEKCN2007	CORS GRP	N372818.368 W1222125.650	49236.4
DN7479	SLAC SLAC_BARD_CN2002	CORS ARP	N372459.450 W1221215.296	41814.8
DM7565	P534 COOKEPEAK_CN2007	CORS GRP	N370340.419 W1221415.345	2476.8

NEAREST NGS PUBLISHED CONTROL POINT

HT3652    24.85=269                      N370225.740 W1221344.220    49.4

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.