

OPUS solution : 401289223V.14O OP1408141097017

opus <opus@ngs.noaa.gov>

Fri 8/15/2014 4:21 PM

To:John Freetly <John.Freetly@neciusa.com>;

FILE: 401289223V.14O OP1408141097017

NGS OPUS SOLUTION REPORT

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All computed coordinate accuracies are listed as peak-to-peak values.

For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: john.freetly@neciusa.com DATE: August 15, 2014
 RINEX FILE: 4012223v.14o TIME: 22:20:39 UTC

SOFTWARE: page5 1209.04 master51.pl 022814 START: 2014/08/11 21:42:00
 EPHEMERIS: igr18051.eph [rapid] STOP: 2014/08/12 01:12:00
 NAV FILE: brdc2230.14n OBS USED: 7920 / 8178 : 97%
 ANT NAME: CHCX91R NONE # FIXED AMB: 40 / 41 : 98%
 ARP HEIGHT: 1.800 OVERALL RMS: 0.011(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.6109)

X: -1396451.731(m) 0.001(m) -1396452.606(m) 0.001(m)
 Y: -4036780.620(m) 0.003(m) -4036779.397(m) 0.003(m)
 Z: 4722026.662(m) 0.005(m) 4722026.653(m) 0.005(m)

LAT: 48 3 33.13187 0.003(m) 48 3 33.15262 0.003(m)
 E LON: 250 55 4.28810 0.002(m) 250 55 4.22886 0.002(m)
 W LON: 109 4 55.71190 0.002(m) 109 4 55.77114 0.002(m)
 EL HGT: 1005.681(m) 0.005(m) 1005.093(m) 0.005(m)
 ORTHO HGT: 1020.798(m) 0.013(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5324659.726 423358.865
 Easting (X) [meters] 642896.994 631133.239
 Convergence [degrees] 1.42681154 0.30566474
 Point Scale 0.99985091 0.99955997
 Combined Factor 0.99969334 0.99940244

US NATIONAL GRID DESIGNATOR: 12UXU4289624659(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DI2257	P049 ARMINGTON_MT2006	CORS ARP	N472059.850 W1105422.382	158002.3
DM7133	MTLW LEWISTOWN	CORS ARP	N470314.929 W1092633.764	115010.4
DL7731	P053 WHITEWATERMT2007	CORS ARP	N484333.865 W1074331.456	124890.3

NEAREST NGS PUBLISHED CONTROL POINT

TK0472	VA 26	N480225.204	W1090423.592	2202.9
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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.