

OPUS-RS solution : 400422231R.14O OP1408628038922

opus <opus@ngs.noaa.gov>

Thu 8/21/2014 7:39 AM

To:Chad Mozol <Chad.Mozol@neciusa.com>;

FILE: 400422231R.14O OP1408628038922

NGS OPUS-RS SOLUTION REPORT =====

All computed coordinate accuracies are listed as 1-sigma RMS values.
For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: cmozol@neciusa.com DATE: August 21, 2014
RINEX FILE: 4004231r.14o TIME: 13:38:57 UTC

SOFTWARE: rsgps 1.37 RS52.prl 1.99.2 START: 2014/08/19 17:23:10
EPHEMERIS: igr18062.eph [rapid] STOP: 2014/08/19 18:39:55
NAV FILE: brdc2310.14n OBS USED: 4255 / 4805 : 89%
ANT NAME: CHCX91B NONE QUALITY IND. 22.18/ 56.74
ARP HEIGHT: 1.8 NORMALIZED RMS: 0.327

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.63219)

X:	-1331559.633(m)	0.007(m)	-1331560.509(m)	0.007(m)
Y:	-4030484.961(m)	0.011(m)	-4030483.737(m)	0.011(m)
Z:	4745492.056(m)	0.013(m)	4745492.049(m)	0.013(m)

LAT:	48 22 44.98978	0.005(m)	48 22 45.01111	0.005(m)
E LON:	251 43 4.39693	0.005(m)	251 43 4.33785	0.005(m)
W LON:	108 16 55.60307	0.005(m)	108 16 55.66215	0.005(m)
EL HGT:	680.293(m)	0.017(m)	679.699(m)	0.017(m)
ORTHO HGT:	696.914(m)	0.020(m)	[NAVD88 (Computed using GEOID12A)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 12)	SPC (2500 MT)
Northing (Y) [meters]	5362013.534	459541.211
Easting (X) [meters]	701243.349	690184.724
Convergence [degrees]	2.03245355	0.89089022
Point Scale	1.00009762	0.99967856
Combined Factor	0.99999100	0.99957199

US NATIONAL GRID DESIGNATOR: 12UYU0124362013(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DL7731	P053 WHITEWATERMT2007	CORS ARP	N484333.865 W1074331.456	56373.7
DG9749	MTMS MONTANA STATE UNI	CORS ARP	N483227.426 W1094111.858	105432.8
DI3425	P052 LRRNCHJRDNMT2006	CORS ARP	N472229.026 W1070107.185	146313.5
DM7133	MTLW LEWISTOWN	CORS ARP	N470314.929 W1092633.764	171151.6
DI3422	P050 WICKUMRNCHMT2006	CORS ARP	N484834.096 W1111454.296	223985.8

NEAREST NGS PUBLISHED CONTROL POINT

Information on nearest mark is not available due to database connectivity issues or has restrictions on when or how it can be published.

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.