

OPUS solution : 018773_14_249_A0.14O OP1410557698756

opus <opus@ngs.noaa.gov>

Fri 9/12/2014 3:38 PM

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

FILE: 018773_14_249_A0.14O OP1410557698756

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
RINEX FILE: 0187249u.14oDATE: September 12, 2014
TIME: 21:37:40 UTCSOFTWARE: page5 1209.04 master53.pl 022814 START: 2014/09/06 20:48:00
EPHEMERIS: igr18086.eph [rapid] STOP: 2014/09/06 22:50:00
NAV FILE: brdc2490.14n OBS USED: 4266 / 4635 : 92%
ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 28 / 30 : 93%
ARP HEIGHT: 1.8000 OVERALL RMS: 0.010(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.6819)

X: -1394610.677(m) 0.003(m) -1394611.539(m) 0.003(m)
Y: -4241370.407(m) 0.014(m) -4241369.160(m) 0.014(m)
Z: 4541091.210(m) 0.013(m) 4541091.174(m) 0.013(m)LAT: 45 40 40.46245 0.015(m) 45 40 40.48284 0.015(m)
E LON: 251 47 54.77564 0.006(m) 251 47 54.71982 0.006(m)
W LON: 108 12 5.22436 0.006(m) 108 12 5.28018 0.006(m)
EL HGT: 1096.951(m) 0.008(m) 1096.286(m) 0.008(m)
ORTHO HGT: 1110.501(m) 0.016(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5062071.215 159530.517
Easting (X) [meters] 717950.093 701132.987
Convergence [degrees] 2.00293231 0.94989390
Point Scale 1.00018404 0.99966079
Combined Factor 1.00001206 0.99948890

US NATIONAL GRID DESIGNATOR: 12TYR1795062071(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	135154.4
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	36275.3
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	109710.0

NEAREST NGS PUBLISHED CONTROL POINT

QW0660	9 DHW	N454013.	W1081312.	1674.1
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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.