

OPUS solution : 018772_14_258_A0.14O OP1411073380635

opus <opus@ngs.noaa.gov>

Thu 9/18/2014 2:53 PM

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

FILE: 018772_14_258_A0.14O OP1411073380635

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: 0187258u.14oDATE: September 18, 2014
TIME: 20:53:07 UTCSOFTWARE: page5 1209.04 master50.pl 022814 START: 2014/09/15 20:01:00
EPHEMERIS: igr18101.eph [rapid] STOP: 2014/09/16 01:03:00
NAV FILE: brdc2580.14n OBS USED: 10246 / 10587 : 97%
ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 50 / 50 : 100%
ARP HEIGHT: 1.800 OVERALL RMS: 0.012(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.7067)

X: -1419842.658(m) 0.004(m) -1419843.520(m) 0.004(m)
Y: -4257139.118(m) 0.012(m) -4257137.869(m) 0.012(m)
Z: 4519016.295(m) 0.011(m) 4519016.256(m) 0.011(m)LAT: 45 23 30.39615 0.012(m) 45 23 30.41630 0.012(m)
E LON: 251 33 19.46308 0.001(m) 251 33 19.40734 0.001(m)
W LON: 108 26 40.53692 0.001(m) 108 26 40.59266 0.001(m)
EL HGT: 1384.578(m) 0.013(m) 1383.909(m) 0.013(m)
ORTHO HGT: 1396.914(m) 0.024(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5029650.012 127456.616
Easting (X) [meters] 700027.025 682626.334
Convergence [degrees] 1.81985933 0.77203423
Point Scale 1.00009196 0.99978743
Combined Factor 0.99987491 0.99957045

US NATIONAL GRID DESIGNATOR: 12TYR0002729650(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	41252.8
DL7728	P051 BILLINGSAPMT2005 CORS ARP	N454823.741	W1083246.070	46789.9
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	130678.4

NEAREST NGS PUBLISHED CONTROL POINT

QW0682	26 DHW	N452421.	W1082624.	1605.4
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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.