

OPUS-RS solution : 018697_14_258_A1.14O OP1411067784925

opus <opus@ngs.noaa.gov>

Thu 9/18/2014 1:30 PM

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

FILE: 018697_14_258_A1.14O OP1411067784925

NGS OPUS-RS SOLUTION REPORT

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All computed coordinate accuracies are listed as 1-sigma RMS values.

For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>USER: john.freetly@neciusa.com
RINEX FILE: 0186258v.14oDATE: September 18, 2014
TIME: 19:30:11 UTCSOFTWARE: rsgps 1.37 RS90.prl 1.99.2 START: 2014/09/15 21:06:30
EPHEMERIS: igr18101.eph [rapid] STOP: 2014/09/15 23:04:45
NAV FILE: brdc2580.14n OBS USED: 7616 / 9352 : 81%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 34.07/ 88.18
ARP HEIGHT: 1.800 NORMALIZED RMS: 0.278

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.70663)

X: -1417325.136(m) 0.007(m) -1417325.998(m) 0.007(m)
Y: -4255799.520(m) 0.015(m) -4255798.271(m) 0.015(m)
Z: 4520899.100(m) 0.017(m) 4520899.062(m) 0.017(m)LAT: 45 25 0.86947 0.006(m) 45 25 0.88966 0.006(m)
E LON: 251 34 49.79193 0.005(m) 251 34 49.73617 0.005(m)
W LON: 108 25 10.20807 0.005(m) 108 25 10.26383 0.005(m)
EL HGT: 1274.140(m) 0.022(m) 1273.472(m) 0.022(m)
ORTHO HGT: 1286.636(m) 0.024(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5032504.673 130275.627
Easting (X) [meters] 701901.457 684552.057
Convergence [degrees] 1.83853477 0.79038865
Point Scale 1.00010122 0.99977534
Combined Factor 0.99990148 0.99957567

US NATIONAL GRID DESIGNATOR: 12TYR0190132504(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	39250.3
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	130398.6
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	69874.8
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	69862.9
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	182129.5
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	185073.3
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	198392.0
DK7547	MTSU BOZEMAN CORS ARP	N453940.376	W1110242.008	206878.2

NEAREST NGS PUBLISHED CONTROL POINT

QW0682	26 DHW	N452421.	W1082624.	2021.3
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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.