

## OPUS-RS solution : 018506\_14\_264\_A0.14O OP1411502566511

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Tue 9/23/2014 2:19 PM

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FILE: 018506\_14\_264\_A0.14O OP1411502566511

## 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: 0185264r.14oDATE: September 23, 2014  
TIME: 20:18:16 UTCSOFTWARE: rsgps 1.37 RS54.prl 1.99.2      START: 2014/09/21 17:59:15  
EPHEMERIS: igr18110.eph [rapid]      STOP: 2014/09/21 18:23:45  
NAV FILE: brdc2640.14n      OBS USED: 1365 / 1390 : 98%  
ANT NAME: CHCX90D-OPUS    NONE      QUALITY IND. 24.45/ 1.76  
ARP HEIGHT: 1.8000      NORMALIZED RMS:    0.305

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)      IGS08 (EPOCH:2014.72262)

X: -1413739.026(m) 0.010(m)      -1413739.887(m) 0.010(m)  
Y: -4265673.149(m) 0.025(m)      -4265671.899(m) 0.025(m)  
Z: 4513156.561(m) 0.026(m)      4513156.521(m) 0.026(m)LAT: 45 18 54.82648    0.009(m)      45 18 54.84665    0.009(m)  
E LON: 251 39 49.15627    0.006(m)      251 39 49.10070    0.006(m)  
W LON: 108 20 10.84373    0.006(m)      108 20 10.89930    0.006(m)  
EL HGT: 1553.272(m) 0.036(m)      1552.600(m) 0.036(m)  
ORTHO HGT: 1565.159(m) 0.037(m) [NAVD88 (Computed using GEOID12A)]

## UTM COORDINATES    STATE PLANE COORDINATES

UTM (Zone 12)      SPC (2500 MT )

Northing (Y) [meters]    5021421.100      119071.902  
Easting (X) [meters]    708781.649      691226.697  
Convergence [degrees]    1.89450375      0.85121817  
Point Scale      1.00013598      0.99982541  
Combined Factor      0.99989248      0.99958199

US NATIONAL GRID DESIGNATOR: 12TYR0878121421(NAD 83)

## BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	52179.1
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	77579.1
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	119136.6
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	188950.0
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	211352.5

## NEAREST NGS PUBLISHED CONTROL POINT

QW0679	23 DHW	N452303.	W1082051.	7723.5
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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.