

LB1710

CBN - This is a Cooperative Base Network Control Station.
DESIGNATION - Y 94
PID - LB1710
STATE/COUNTY- IN/WARREN
USGS QUAD - OTTERBEIN (1986)

*CURRENT SURVEY CONTROL

* NAD 83(2007)- 40 28 28.80810(N) 087 05 34.33760(W) ADJUSTED
* NAVD 88 - 215.220 (meters) 706.10 (feet) ADJUSTED

EPOCH DATE - 2002.00
X - 246,424.690 (meters) COMP
Y - -4,852,546.630 (meters) COMP
Z - 4,118,338.505 (meters) COMP
LAPLACE CORR- -1.62 (seconds) DEFLEC99
ELLIP HEIGHT- 181.693 (meters) (02/10/07) ADJUSTED
GEOID HEIGHT- -33.52 (meters) GEOID03
DYNAMIC HT - 215.114 (meters) 705.75 (feet) COMP

----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
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NETWORK	Y 94		0.74	0.51	1.47
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MODELED GRAV- 980,131.2 (mgal) NAVD 88

VERT ORDER - SECOND CLASS 0

.The horizontal coordinates were established by GPS observations
.and adjusted by the National Geodetic Survey in February 2007.

.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
.See [National Readjustment](#) for more information.

.The horizontal coordinates are valid at the epoch date displayed
above.

.The epoch date for horizontal control is a decimal equivalence
.of Year/Month/Day.

.The orthometric height was determined by differential leveling
.and adjusted in June 1991.

.The X, Y, and Z were computed from the position and the ellipsoidal
ht.

.The Laplace correction was computed from DEFLEC99 derived
deflections.

.The ellipsoidal height was determined by GPS observations
.and is referenced to NAD 83.

.The geoid height was determined by GEOID03.

.The dynamic height is computed by dividing the NAVD 88
.geopotential number by the normal gravity value computed on the
.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
.degrees latitude (g = 980.6199 gals.).

.The modeled gravity was interpolated from observed gravity values.

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;           North           East           Units Scale Factor
Converg.
;SPC IN W   -   580,222.779   899,191.189   MT   0.99996667   -0 00
22.3
;SPC IN W   - 1,903,614.23   2,950,096.43   sFT   0.99996667   -0 00
22.3
;UTM 16     - 4,480,447.133   492,127.675   MT   0.99960076   -0 03
37.0

!           - Elev Factor   x   Scale Factor =   Combined Factor
!SPC IN W   -   0.99997150   x   0.99996667   =   0.99993817
!UTM 16     -   0.99997150   x   0.99960076   =   0.99957227

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SUPERSEDED SURVEY CONTROL

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NAD 83(1997)- 40 28 28.80805(N)   087 05 34.33755(W) AD(       ) A
ELLIP H (01/19/05) 181.700 (m)           GP(       ) 4
1
NAVD 88 (01/19/05) 215.22 (m)           706.1 (f) LEVELING 3
NGVD 29 (??/??/92) 215.295 (m)         706.35 (f) ADJ UNCH 2
0

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.Superseded values are not recommended for survey control.
.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
.[See file dsdata.txt](#) to determine how the superseded data were
derived.

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_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TDK9212880447(NAD 83)
_MARKER: DB = BENCH MARK DISK
_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
_SP_SET: SET IN TOP OF CONCRETE MONUMENT
_STAMPING: Y 94 1946
_MARK LOGO: CGS
_MAGNETIC: N = NO MAGNETIC MATERIAL
_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
+STABILITY: SURFACE MOTION
_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
+SATELLITE: SATELLITE OBSERVATIONS - October 24, 2007

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HISTORY - Date      Condition      Report By
HISTORY - 1946      MONUMENTED    CGS
HISTORY - 20030624 GOOD              IN-099
HISTORY - 20071024 GOOD              INDIV

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STATION DESCRIPTION

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'DESCRIBED BY COAST AND GEODETIC SURVEY 1946
'1 MI S FROM OTTERBEIN.
'ABOUT 0.95 MILE SOUTH ALONG A BLACK TOP ROAD FROM THE NEW YORK,

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'CHICAGO AND ST. LOUIS RAILROAD STATION AT OTTERBEIN, AT A ROAD
'LEADING WEST AT THE BENTON-WARREN COUNTY LINE, 29 FEET SOUTH OF
'THE CENTER LINE OF THE GRAVEL ROAD LEADING WEST, 25 FEET WEST
'OF THE CENTER LINE OF THE BLACK TOP ROAD, 26 FEET SOUTHEAST OF
'A 12 INCH ASH TREE, 2.5 FEET SOUTH OF A FENCE CORNER POST, IN
'THE FENCE LINE, AND ABOUT 1 FOOT BELOW THE ROAD, AND 2 FEET NORTH
'OF A WHITE WOODEN WITNESS POST. A STANDARD DISK, STAMPED Y 94
'1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 4 INCHES
'ABOVE GROUND.

STATION RECOVERY (2003)

'RECOVERY NOTE BY TIPPECANOE COUNTY INDIANA 2003 (ZEB)
'THE STATION IS LOCATED ABOUT 15 MI SOUTHEAST OF FOWLER, 3.5 MI WEST
'FROM MONTMORENCI AND 1 MI SOUTH FROM OTTERBEIN. OWNERSHIP--DAVE
'GEPHARI.

'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 26 AND
WARREN
'COUNTY ROAD 1200E AT THE TIPPECANOE/WARREN COUNTY LINE, GO NORTH FOR
'ABOUT 1.9 MI ON CR 1200E TO BENTON COUNTY ROAD 900S AND THE STATION.

'THE STATION IS IN A 9-INCH SQUARE CONCRETE POST FLUSH WITH GROUND.
'LOCATED 28 FT SOUTH OF THE CENTERLINE OF BENTON COUNTY ROAD 900S, 26
'FT WEST OF THE CENTERLINE OF WARREN COUNTY ROAD 1200E, 93.5 FT
'SOUTHEAST OF A MAGNAIL IN POWER POLE (MAGNAIL IN SOUTHWEST SIDE OF
'POLE, 1.5 FT ABOVE GROUND), 47.5 FT SOUTHWEST OF AN 18-INCH SQUARE
'CONCRETE POST PROJECTING 4 FT ABOVE GROUND, 20.9 FT NORTH OF A POWER
'POLE, 12.3 FT NORTH OF A TELEPHONE BOX AND 2 FT EAST OF A WITNESS
'POST.

STATION RECOVERY (2007)

'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (CK)
'RECOVERED IN GOOD CONDITION.

1 National Geodetic Survey, Retrieval Date = JANUARY 15, 2008

A-13

Otterbein, 1.0 miles south of along a black-top from the Penn Central Railroad Station, at the junction of a road leading west at the Benton-Warren county line, 29 feet south of the centerline of the gravel road leading west, 25 feet west of the centerline of the black-top road, 2.5 feet south of a fence corner, about 1 foot lower than the road. A standard disk, stamped "Y 94 1946" and set in the top of a concrete post projecting 4 inches above ground.

SW corner of 900 S + 1200 E Fence Corner No longer Exists

Recovered 7/80

Elevation 706.347

RECOVERED 8/87

NOTE: CORNER DESTROYED; MARK LOCATED
25.5' WEST OF RR SPIKE IN ROAD

" SEPT. 27, 1994 IN GOOD CONDITION.

6/29/2007 Decent Condition