

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.00
1      National Geodetic Survey,  Retrieval Date = MARCH 17, 2013
KK1469 *****
KK1469 DESIGNATION - MARSTON
KK1469 PID - KK1469
KK1469 STATE/COUNTY- CO/JEFFERSON
KK1469 COUNTRY - US
KK1469 USGS QUAD - LITTLETON (1994)
KK1469
KK1469 *CURRENT SURVEY CONTROL
KK1469
KK1469* NAD 83(1992) POSITION- 39 35 02.15929(N) 105 05 21.77941(W) ADJUSTED
KK1469* NAVD 88 ORTHO HEIGHT - 1729.798 (meters) 5675.18 (feet) ADJUSTED
KK1469
KK1469 LAPLACE CORR - -15.87 (seconds) DEFLEC12A
KK1469 GEOID HEIGHT - -16.28 (meters) GEOID12A
KK1469 DYNAMIC HEIGHT - 1728.078 (meters) 5669.54 (feet) COMP
KK1469 MODELED GRAVITY - 979,571.4 (mgal) NAVD 88
KK1469
KK1469 HORZ ORDER - FIRST
KK1469 VERT ORDER - FIRST CLASS II
KK1469
KK1469.The horizontal coordinates were established by classical geodetic methods
KK1469.and adjusted by the National Geodetic Survey in January 1993.
KK1469.
KK1469.The orthometric height was determined by differential leveling and
KK1469.adjusted by the NATIONAL GEODETIC SURVEY
KK1469.in June 1991.
KK1469
KK1469.The Laplace correction was computed from DEFLEC12A derived deflections.
KK1469
KK1469.The dynamic height is computed by dividing the NAVD 88
KK1469.geopotential number by the normal gravity value computed on the
KK1469.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
KK1469.degrees latitude (g = 980.6199 gals.).
KK1469
KK1469.The modeled gravity was interpolated from observed gravity values.
KK1469
KK1469. The following values were computed from the NAD 83(1992) position.
KK1469
KK1469;
KK1469;          North          East          Units Scale Factor Converg.
KK1469;SPC CO C - 499,213.883 949,676.739 MT 0.99997137 +0 15 32.3
KK1469;SPC CO C - 1,637,837.55 3,115,731.10 sFT 0.99997137 +0 15 32.3
KK1469;UTM 13 - 4,381,583.343 492,324.174 MT 0.99960073 -0 03 25.0
KK1469
KK1469!          - Elev Factor x Scale Factor = Combined Factor
KK1469!SPC CO C - 0.99973125 x 0.99997137 = 0.99970262
KK1469!UTM 13 - 0.99973125 x 0.99960073 = 0.99933208
KK1469
KK1469:          Primary Azimuth Mark          Grid Az
KK1469:SPC CO C - MARSTON AZ MK          344 39 47.1
KK1469:UTM 13 - MARSTON AZ MK          344 58 44.4

```

```

KK1469
KK1469|-----|
KK1469| PID      Reference Object                Distance      Geod. Az      |
KK1469|                                     dddmss.s      |
KK1469| KK1701 LITTLETON HONEYWELL CORP TANK    APPROX.13.6 KM 0915831.9 |
KK1469| CP7705 MARSTON RM 1                      8.745 METERS 15944      |
KK1469| CP7706 MARSTON RM 2                      9.512 METERS 32955      |
KK1469| KK1820 LAKEHURST MUN TANK                APPROX. 7.2 KM 3425143.8 |
KK1469| KK1836 MARSTON AZ MK OFFSET              APPROX. 0.5 KM 3445521.7 |
KK1469| KK1470 MARSTON AZ MK                    APPROX. 0.5 KM 3445519.4 |
KK1469| KK1817 LAKEWOOD FED CORR INST STACK     APPROX. 6.6 KM 3473729.3 |
KK1469| KK1816 LAKEWOOD FED CORR INST TANK      APPROX. 6.9 KM 3500109.2 |
KK1469|-----|
KK1469
KK1469                                SUPERSEDED SURVEY CONTROL
KK1469
KK1469 NAD 83(1986)- 39 35 02.15634(N)    105 05 21.77849(W) AD(      ) 1
KK1469 NAD 27      - 39 35 02.19775(N)    105 05 19.83112(W) AD(      ) 1
KK1469 NGVD 29 (??/??/??) 1728.864 (m)    5672.11 (f) ADJUSTED 1 2
KK1469
KK1469.Superseded values are not recommended for survey control.
KK1469
KK1469.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
KK1469.See file dsdata.txt to determine how the superseded data were derived.
KK1469
KK1469_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SDD9232481583(NAD 83)
KK1469
KK1469_MARKER: DS = TRIANGULATION STATION DISK
KK1469_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
KK1469_SP_SET: CONCRETE POST
KK1469_STAMPING: MARSTON 1977
KK1469_MARK LOGO: NGS
KK1469_PROJECTION: FLUSH
KK1469_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
KK1469+STABILITY: SURFACE MOTION
KK1469_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
KK1469+SATELLITE: SATELLITE OBSERVATIONS - March 25, 2011
KK1469
KK1469 HISTORY      - Date      Condition      Report By
KK1469 HISTORY      - 1977      MONUMENTED    NGS
KK1469 HISTORY      - 1983      GOOD          LOCENG
KK1469 HISTORY      - 1984      GOOD          NGS
KK1469 HISTORY      - 20110325 GOOD          INDIV
KK1469
KK1469                                STATION DESCRIPTION
KK1469
KK1469'DESCRIBED BY NATIONAL GEODETIC SURVEY 1977 (LHW)
KK1469'THE STATION IS LOCATED ABOUT 4 MILES SOUTHWEST OF LITTLETON,
KK1469'8 MILES SOUTH OF LAKEWOOD, ON STATE HIGHWAY RIGHT-OF-WAY AND
KK1469'JUST WEST OF STATE HIGHWAY 121. IT IS IN THE SOUTHWEST
KK1469'QUARTER OF SECTION 26, T 5 S, R 69 W.
KK1469'
KK1469'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 285 AND
KK1469'STATE HIGHWAY 121, WHICH IS AT THE SOUTH EDGE OF LAKEWOOD, GO
KK1469'SOUTH ON STATE HIGHWAY 121 (SOUTH WADSWORTH BLVD), FOR
KK1469'4.7 MILES
KK1469'TO A ROAD RIGHT (WEST COLUMBINE DRIVE), AND THE
KK1469'AZIMUTH MARK JUST
KK1469'BEFORE REACHING A CROSSOVER BETWEEN THE NORTH AND SOUTHBOUND
KK1469'LANES OF STATE HIGHWAY 121. CONTINUE SOUTH ON STATE HIGHWAY

```

KK1469'121 FOR 0.4 MILE TO THE STATION ON THE RIGHT ON A HIGH
KK1469'CUTBANK.

KK1469'

KK1469'STATION MARKS, STAMPED---MARSTON 1977---, ARE STANDARD DISKS.
KK1469'THE SURFACE DISK IS SET IN THE TOP OF A 12-INCH CYLINDRICAL
KK1469'CONCRETE MONUMENT THAT IS FLUSH WITH THE GROUND. IT IS 3.5
KK1469'FEET EAST OF FENCE AND WITNESS POST, 40.5 FEET EAST OF THE
KK1469'APPROXIMATE CENTER OF A GRAVELED ROAD AND 44 FEET WEST OF WEST
KK1469'EDGE OF SOUTHBOUND STATE HIGHWAY 121. THE UNDERGROUND DISK IS
KK1469'SET IN AN IRREGULAR MASS OF CONCRETE ABOUT 42 INCHES BELOW THE
KK1469'GROUND.

KK1469'

KK1469'REFERENCE MARK 1, STAMPED---MARSTON NO 1 1977---, IS A STANDARD
KK1469'DISK CEMENTED IN A DRILL HOLE IN OUTCROPPING BEDROCK WHICH IS
KK1469'FLUSH WITH THE GROUND. IT IS 1 FOOT EAST OF A FENCE, 37 FEET
KK1469'EAST OF THE APPROXIMATE CENTER OF A GRAVELED ROAD AND 46 FEET
KK1469'WEST OF THE WEST EDGE OF SOUTHBOUND STATE HIGHWAY 121.

KK1469'

KK1469'REFERENCE MARK 2, STAMPED---MARSTON NO 2 1977---, IS A STANDARD
KK1469'DISK SET IN THE TOP OF A 12-INCH CYLINDRICAL CONCRETE MONUMENT
KK1469'THAT IS FLUSH WITH THE GROUND. IT IS 0.8 FOOT EAST OF A FENCE,
KK1469'37 FEET EAST OF THE APPROXIMATE CENTER OF A GRAVELED ROAD AND
KK1469'47 FEET WEST OF THE WEST EDGE OF SOUTHBOUND STATE HIGHWAY 121.

KK1469'

KK1469'AZIMUTH MARK, STAMPED---MARSTON 1977---, IS A STANDARD DISK
KK1469'CEMENTED

KK1469'IN A DRILL HOLE IN A CONCRETE SLAB. IT IS 3.5 FEET
KK1469'SOUTHEAST OF THE

KK1469'CENTER OF A DRAIN, 13 FEET WEST OF THE WEST EDGE OF NORTHBOUND
KK1469'LANE OF STATE HIGHWAY 121, 15 FEET EAST OF THE EAST EDGE OF THE
KK1469'SOUTHBOUND LANE OF

KK1469'STATE HIGHWAY AND 107.5 FEET NORTH-NORTHWEST OF THE SOUTH-
KK1469'SOUTHEAST EDGE OF A CROSSOVER BETWEEN THE NORTH AND
KK1469'SOUTHBOUND LANES OF STATE HIGHWAY 121.

KK1469'

KK1469'A 1/2-INCH RE-ENFORCEMENT ROD WAS SET AT THE STATION MARK AND
KK1469'REFERENCE MARKS 1 AND 2.

KK1469'HEIGHT OF LIGHT ABOVE THE STATION MARK WAS 1.9 METERS.

KK1469

STATION RECOVERY (1983)

KK1469

KK1469'RECOVERY NOTE BY LOCAL ENGINEER (INDIVIDUAL OR FIRM) 1983 (RMC)
KK1469'MARSTON 1977 AS DESCRIBED BY JEFFERSON COUNTY MAPPING DEPARTMENT
KK1469'RECOVERED IN EXCELLENT CONDITION.

KK1469'

KK1469'DISTANCE AND DIRECTION FROM NEAREST TOWN--APPROXIMATELY 4 MILES
KK1469'SOUTHEAST OF LITTLETON.

KK1469

STATION RECOVERY (1984)

KK1469

KK1469'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1984
KK1469'IN COLUMBINE HILLS SUBDIVISION.

KK1469'IN THE COLUMBINE HILLS SUBDIVISION, AT THE INTERSECTION OF WADSWORTH
KK1469'BOULEVARD AND KEN CARYL AVENUE, ON THE HIGHEST POINT OF A HILL,
KK1469'381.0 METERS (1250.0 FT) NORTH OF THE INTERSECTION OF THE AVENUE,
KK1469'20.1 METERS (65.9 FT) WEST OF THE CENTERLINE OF THE SOUTH BOUND LANES
KK1469'OF THE BOULEVARD, AND 0.9 METER (3.0 FT) EAST OF A FENCE.

KK1469'THE MARK IS 1.0 METERS E FROM A WITNESS POST.

KK1469'THE MARK IS 3.0 M ABOVE THE BOULEVARD.

KK1469

KK1469 STATION RECOVERY (2011)
KK1469
KK1469'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (BB)
KK1469'RECOVERED - ADDED FRESH FLAGGING

*** retrieval complete.
Elapsed Time = 00:00:03