

25 August 1989

To Dave Bateman:

Here is all the survey data we have for SQUAW CREEK AREA at Sisters, Oregon. If we can be of any other help please feel to contact us, telephone 503-326-3439.

Robert G. Craig

Robert G. Craig
Chief, Survey Section
CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946
CENPPEN-GL

DGMC # 2

FILED

DATE 8-5-92
DESCHUTES COUNTY SURVEYOR

BY Sheila Cole

SQUAW CREEK FIELD SURVEY--NARRATIVE

During the period of October through December, 1976, field surveys were made along Squaw Creek from approximately 4 1/2 miles South to 12 miles Northeast of Sisters, Oregon, for map and related cross section control in connection with a Flood Plane Information Report. These surveys consisted of a triangulation net from National Geodetic Survey, (USC & GS), established control; connecting horizontal traverses, trilaterations, level circuits, (both three wire and single wire), 50 cross sections, related bridge and other restricting structure data along Squaw Creek. Class I, Third Order Survey Standard Procedures were used throughout this project.

The following equipment was used in connection with this survey:

- Zeiss TH₂ Theodolite
- Zeiss Ni₂ Levels
- Tellurometer CA1000 long range EDM
- HP 3800A short range EDM

A. Primary Control

Two quadrilaterals were established consisting of existing stations Cline, Big Falls and Stones, new stations Henkle ECC., Squaw Bluff and Three Creek Butte-2. Two additional stations were established outside the quads, Cloverdale and Holmes, by triangulation, (see plat for location). Cline and Big Fall, located on the NGS trans-continental high precision traverse, were used to control horizontal positions. New coordinates were established on Station Stones.

Cline to Big Falls was horizontally measured for indexing the CA1000 and found to be within limits. Check measurements from Cline to Henkle Ecc. and Three Creek Butte-2 were made to check the quads. Horizontal directions were turned from each position throughout the triangulation scheme from eight positions on the instrument using a four second angle rejection from the mean.

Initial computations and adjustment of the quads were made by the survey section of the Corps. After analysis of this adjustment and comparing the check distances, it was felt a weak angle existed at Henkle Ecc. pointing to Big Falls and Cline. After eliminating this direction and substituting a computed angle, the quads were recomputed. This caused the check horizontal distances to close within limits. A new coordinate was established on Henkle from Henkle Ecc. but not closed.

B. Traverse

Three horizontal traverses were connected to the primary control as follows:

1. South Traverse--Beginning at Three Creek Butte-2 in Section 31, Township 16 South, Range 10 East, and running generally North along the existing 1000 line timber access road to Sisters, then Northwest through Section 31, Township 14 South, Range 10 East, then South to the McKenzie Highway, along the highway towards Sisters and closing on Squaw Bluff in Section 32, Township 15 South, Range 10 East.
2. North Traverse--Beginning at Henkle Ecc. in Section 24, Township 14 South, Range 10 East, then Southwest to McKinney Butte, then North along the road to Indian Ford Creek to a point in Section 21, Township 14 South, Range 10 East and closing back on Henkle Ecc.
3. Far North Traverse--Beginning at Stones in Section 35, Township 13 South, Range 11 East, then West to a point in Section 32, Township 13 South, Range 11 East, then Southeasterly and Easterly back to Stones.

C. Trilateration

Three trilateration schemes were established. Two of these were at Squaw Bluff cutting in Highline, Squaw-High, Squaw Bench-1 and Squaw Bench-2 (see plat for location). The third scheme was at Cloverdale located in Section 1, Township 15 South, Range 10 East, to cut in BMZ-45 and Cloverdale-1.

D. Level Control

Three primary three wire level circuits were run as follows:

1. South Loop--Beginning at B-369 in Section 16, Township 15 South, Range 10 East and running South along Three Creek Lake Road to Squaw Bench-1 in Section 28, then Eastward to the 1000 line road, then North and West along the road and closing back on B-369.
2. West Loop--Using the existing bench marks along the McKenzie Highway, West of Sisters, and running a series of short loops through portions of the South horizontal traverse West of town.
3. North Loop--Beginning at E-476 at the Sisters' school and running North along the road to Indian Ford Creek; thence Southeast along the Camp Polk Road and closing on Z-45 on the Redmond Highway East of Sisters.

A single wire loop to control the cross sections was run along the entire length of Squaw Creek beginning in Section 29, Township 15 South, Range 10 East, to the County line in Section 3, Township 14 South, Range 11 East, then Southwest along the Fremont Canyon Road and closing on the three wire North Loop at Polk Loop Road.

E. Cross Sections and Bridge Data

Cross section data were taken along Squaw Creek at right angles and approximately 100 feet on either side of the stream edge. Two cross sections, 15 and 16, were unobtainable as permission for access was denied by the property owners. All bridges and other restricting structures along the stream were measured, sketched and photographed.

Respectfully submitted,



Tom O. McCullough PLS 650
Project Surveyor

cps

SISTERS, OREGON--HORIZONTAL AND VERTICAL CONTROL

1. Primary Control

<u>Station</u>	(Y) <u>Northing</u>	(X) <u>Easting</u>	(Z) <u>Elevation</u>
Cline	214,949.03	1,789,895.54	
Big Falls	265,553.40	1,792,110.97	
Stones	268,337.17	1,769,090.30	2968.70
Henkle Ecc.	245,564.14	1,742,322.35	3409.48
Three Creek			
Butte-2	178,709.51	1,717,693.08	
Squaw Bluff	206,986.62	1,722,099.96	3842.42
Cloverdale	229,450.39	1,743,858.74	3113.227
Holmes	262,165.54	1,769,991.23	2992.78

2. South Traverse & Squaw Bluff Trilateration

Squaw Bench-1	211,367.80	1,724,697.73	3445.769
Squaw Bench-2	207,973.80	1,729,566.13	3578.567
Squaw High	208,439.76	1,715,699.51	3803.37
Highline	205,456.34	1,718,375.14	3907.72
Thousand	203,654.51	1,737,693.69	3401.152
TS 1	204,404.98	1,737,657.39	3395.831
TS 2	205,744.24	1,736,610.51	3384.186
TS 3	206,565.97	1,736,627.54	3386.407
TS 4	207,537.98	1,737,644.19	3361.971
TS 5	208,210.09	1,737,728.31	3355.858
TS 6	210,081.97	1,736,648.36	3342.309
TS 7	210,940.52	1,736,765.70	3329.977
TS 8	211,970.51	1,736,397.86	3318.404
TS 9	212,769.55	1,735,728.94	3305.233
TS 10	213,113.03	1,735,006.16	3298.412
TS 11	213,473.10	1,733,932.61	3294.251
TS 12	216,025.57	1,733,690.32	3272.872
TS 13	217,085.96	1,732,819.87	3271.798
TS 14	218,720.20	1,730,331.78	3283.142
TS 15	221,390.49	1,726,478.00	3265.310
TS 16	224,284.43	1,722,116.99	
Sisters	229,711.42	1,723,751.79	3187.769
SSB 1	233,094.61	1,721,696.02	3190.767
SSB 2	236,196.01	1,717,556.86	
SSB 3	238,604.74	1,714,090.04	3258.052
SSB 4	232,418.81	1,713,663.74	3275.053
SSB 5	230,606.96	1,718,065.23	3225.571
SSB 6	229,627.02	1,719,355.60	3210.986
BM B-298			3263.465
BM E-364			3192.015
BM C-1			3226.562
BM B-369			3284.459
Three Creek BM			3540.513
Canal			3366.56

SISTERS, OREGON--HORIZONTAL AND VERTICAL CONTROL
Page 2

3. North Traverse & Cloverdale Trilateration

<u>Station</u>	(Y) <u>Northing</u>	(X) <u>Easting</u>	(Z) <u>Elevation</u>
BM E-476			3179.44
AH-1	232,125.67	1,732,365.09	
Airport	233,355.97	1,727,060.59	3164.955
HEA 7	234,886.42	1,727,083.68	3153.438
HEA 6	236,826.09	1,727,881.03	3148.655
HEA 5	238,376.73	1,727,719.82	3149.626
HEA 4	240,175.45	1,728,978.88	3164.386
HEA 3	244,412.73	1,729,962.29	3227.182
HEA 2	246,589.49	1,729,322.09	3224.535
HEA 1	248,555.40	1,729,196.32	3260.617
Ford			3175.718
Polk			3012.612
Cloverdale-1	230,470.20	1,741,975.90	3121.973
BM Z-45	229,444.94	1,742,192.06	3120.109
Henkle	245,466.47	1,742,307.63	3407.75
BM A-379			3175.063

4. Far North Traverse

Stones	268,337.17	1,769,090.30	2968.70
SRR 1	268,788.88	1,768,465.19	2962.36
SRR 2	269,182.52	1,767,777.91	2937.08
SRR 3	268,085.60	1,755,639.35	2950.19
Rimrock	264,961.28	1,762,001.10	2858.10
RRS-1	264,826.52	1,764,582.19	3003.03
RRS-2	264,803.33	1,767,421.37	3029.32

5. Fremont Canyon Bench Marks

Fremont BM	2882.40
Stephens BM	3150.92
Henkle BM	3046.60

6. Cross Section TBM's

<u>Cross Section #</u>	<u>Elevation</u>
X-1	2589.45
X-2	2632.34
X-3	2669.29
X-4	2718.10
X-5	2762.88
X-6	2810.86
X-7	2852.54

SISTERS, OREGON--HORIZONTAL AND VERTICAL CONTROL
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6. Cross Section TBM's (Continued)

<u>Cross Section #</u>	<u>Elevation</u>
X-8	2905.92
X-9	2952.45
X-11	2996.49
X-14	3048.01
X-17	3088.62
X-20	3115.73
X-24	3154.82
X-33	3222.66
X-36	3255.68
X-39	3317.28
X-44	3373.57
X-46	3367.75
X-49	3435.308
X-52	3545.433

IDENTIFY DESCHUTES		TYPE OF MARK		STATION CLINE	
LOCALITY		STAMPING ON MARK		AGENCY (CAST IN MARKS) USC EGS	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) 214 949.03		(EASTING)(NORTHING) (FT) 1,789,895.5A		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETTIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETTIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETTIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

STATION MARK IS 50 FT. NORTH OF FARE NORTH WOOD RAIL FENCE @ OMNI STATION TO REDMOND AIRPORT. PUBLISHED DESCRIPTION IS OKAY OTHERWISE.

SKETCH



DA FORM 1959
1 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-227; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION THREE CREEK BUTTE-2 (4 31 16510E)	
LOCALITY SISTERS OR.		STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) 178,709.51		(EASTING)(NORTHING) 1,717,693.08		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE	
ESTABLISHED BY (AGENCY) DACW 57-77-C-0006				DATE NOV 1976	
				ORDER 320	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)	(GRID)		(METERS)	(FEET)	(METERS)	(FEET)

STATION IS A BRASS CAP CEMENTED IN A ROCK ON THE FAR NORTH END OF THREE CREEK BUTTE LOCATED IN THE NE 1/4 NW 1/4 SEC 31 T16S R10E W1M. DRIVE SOUTH FROM SISTERS TO HIGHLINE ROAD, FOLLOW HIGHLINE ROAD TO BASE OF BUTTE THEN THE ACCESS ROAD TO THE TOP OF THREE CREEK BUTTE & STATION. AND OLD LOOK OUT HOUSE STANDS ON THE SOUTH END OF THE BUTTE

SKETCH



DA FORM 1959
1 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

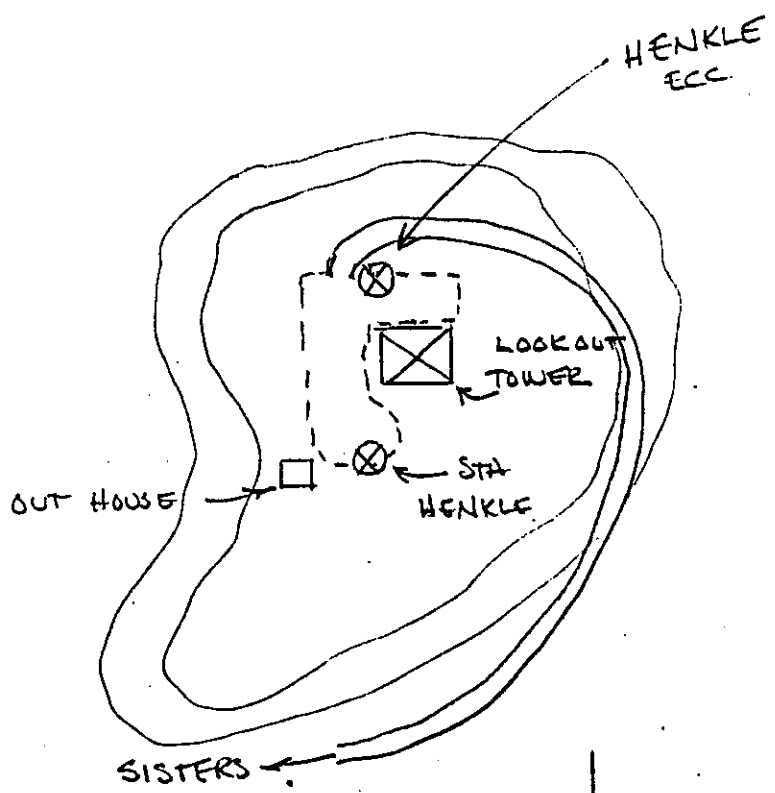
DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

DESCRIPTION DESCHUTES		TYPE OF MARK BRASS CAP		STATION HENKLE ECC (HEV 24 14S 10E)	
LOCALITY SISTERS OR.		STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) 245,564.14		(EASTING)(NORTHING) (FT) 1,742,322.35		GRID AND ZONE DCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW-57-77-C-0006	
				DATE NOV 1976	
				ORDER 3 R0	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)(GRID)	(MAGNETIC)		(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO: A BRASS CAP CEMENTED IN A ROCK ON THE NORTH SIDE OF THE PARKING LOT ABOUT 50 FT. NORTH OF THE NORTHWEST CORNER OF HENKLE BUTTE LOOK OUT TOWER IN THE SE & SW 1/4 SEC 24 T14S R10E 4 1/2 AIR MILES NORTH EAST OF SISTERS OREGON.



SKETCH

DESCRIPTION DESCHUTES		TYPE OF MARK BRASS CAP		STATION STONES	
LOCALITY		STAMPING ON MARK		AGENCY (CAST IN MARKS) USCEGS	
LATITUDE		LONGITUDE		DATUM 1929 W / 1947 ADJ	
(NORTHING)(EASTING) (FT) 268,337.17		(EASTING)(NORTHING) (FT) 1,769,090.30		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-006	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

USE PUBLISHED DESCRIPTION - NEW COORDINATES
BY THIS SURVEY

SKETCH

COUNTRY DESCRUTES		TYPE OF MARK		STATION BIG FALLS	
LOCALITY		STAMPING ON MARK		AGENCY (CAST IN MARKS) USCEGS	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) 265,553.40		(EASTING)(NORTHING) (FT) 1,792,110.97		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY)	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)	(GRID)		(METERS)	(FEET)	(METERS)	(FEET)

USE PUBLISHED DESCRIPTION -

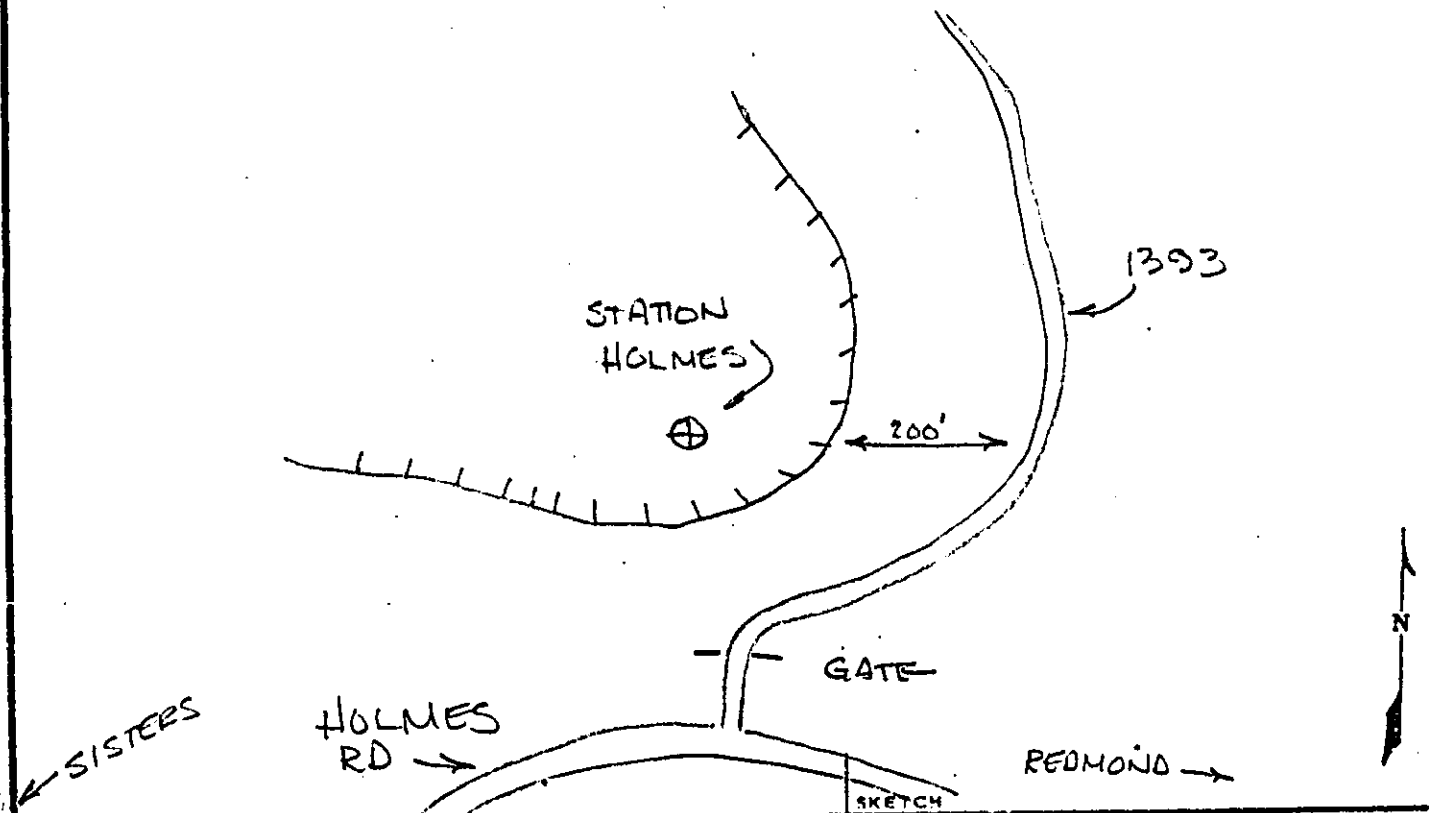
SKETCH



DESCHUTES		TYPE OF MARK BRASS CAP		STATION HOLMES (2 145 11E)	
LOCALITY SISTER'S OR.		STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		DATUM: 1929 w / 1947 ADJ.	
(NORTHING)(EASTING) (FT) 262,165.54		(EASTING)(NORTHING) (FT) 1,769,991.23		GRID AND ZONE OCE NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
				DATE NOV 1976	
				ORDER 3RD	

TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	(FEET)	GRID DISTANCE (METERS)

DRIVE TO: A BRASS CAP CEMENTED IN A ROCK ON THE EDGE OF A BLUFF 200' EAST OF USFE ROAD 1393, 2000 FT NORTH OF ITS JUNCTION WITH HOLMES ROAD. STATION IS LOCATED IN THE SE $\frac{1}{4}$ SEC 2, T 14S R 11E.



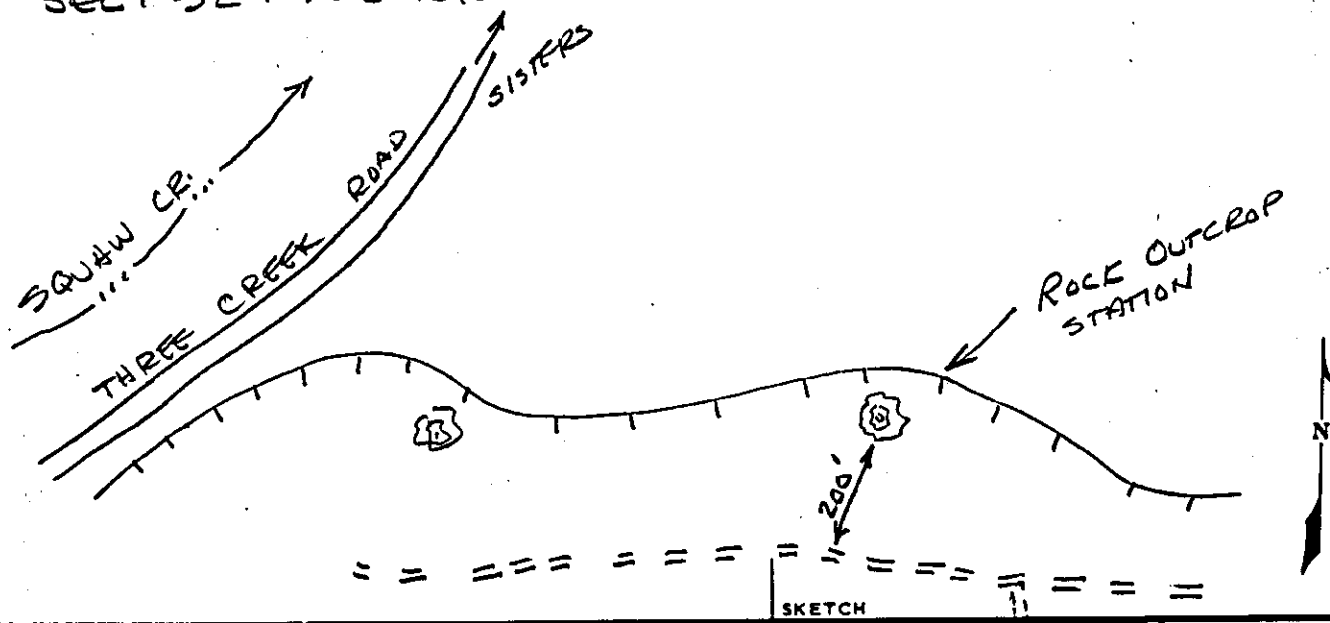
COUNTRY DESCHUTES CO.		TYPE OF MARK BRASS CAP		STATION SQUAW-BLUFF (HV 32 155 10E)	
LOCALITY SISTERS OR.		STAMPING ON MARK SAME AS STA. →		AGENCY (CAST IN MARKS) U.S. A.C.E.	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
206,986.62 (M)		1,722,099.96 (M)		O.C.S. NORTH	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
				DATE Nov. 1976	
				ORDER 3 RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION:

FROM THE JUNCTION OF HIGHWAY 20 AND THREE CREEK LAKE ROAD (FLK LAKE ROAD) IN SISTERS OR., GO SOUTH ON THREE CREEK ROAD 5.1 MILES TO TOP OF HILL. TURN WEST ON DIRT ROAD 3/4 MILES THEN NORTH 3/4 MILES TO EDGE OF A HIGH BLUFF OVER LOOKING SQUAW CREEK IN A LARGE OLD BURN. STATION IS A BRASS CAP ON A 30 FOOT HIGH ROCK OUTCROP ON EDGE OF THE BLUFF LOCATED IN THE SE 1/4 NE 1/4 SEC. 32 T 155 R 10E.



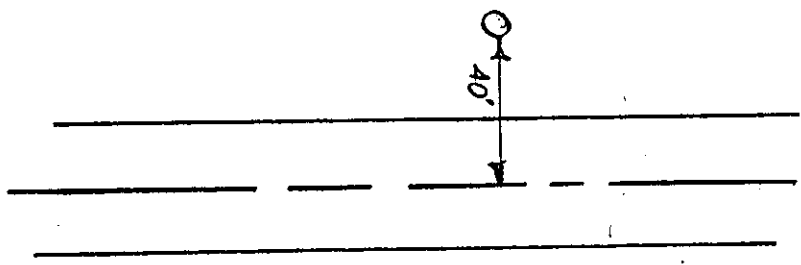
COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION CLOVERDALE	
LOCALITY SISTERS, ORE.		STAMPING ON MARK CLOVERDALE NV 1 155 10E		AGENCY (CAST IN MARKS) U. S. A. C. E.	
LATITUDE		LONGITUDE		ELEVATION (FT) 3113.227 (M)	
(NORTHING)(EASTING) (FT) 229.450.39 (M)		(EASTING)(NORTHING) (FT) 1,743,858.74 (M)		DATUM 1929 W/1947 ADJ.	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE O.G.S. NORTH	
				ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
				DATE Nov. 1976	
				ORDER 3 RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: SOUTH ON HWY. #20 FROM SISTERS U.S. POST OFFICE 0.5 MILES, THEN EAST ON HWY. #126 3.1 MILES TO STATION. STATION IS 40±' LEFT OF R OF HWY. ON SHOULDER OF ROAD, MARKED BY A METAL POST & STANDARD SIGN.

No P.R. FOR STATION

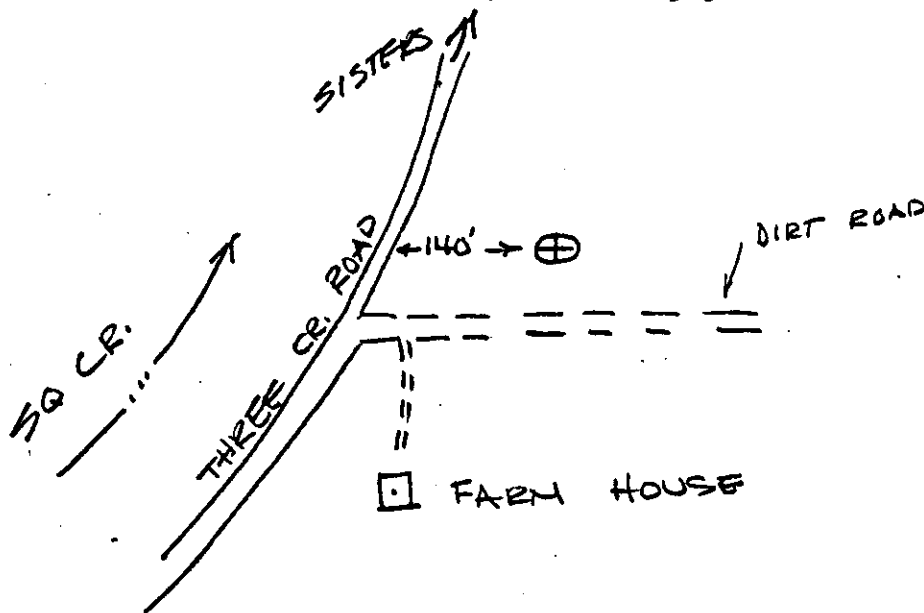


SKETCH

COUNTRY DESCUTES		TYPE OF MARK BRASS CAP		STATION SQUAW BENCH-1 (HEV 28 155 10E)	
LOCALITY SISTERS, OREGON		STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) U.S.A.C.E.	
LATITUDE		LONGITUDE		ELEVATION (FT) 3445.769 (M)	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		DATUM 1929 W/1947 ADJUSTMENT	
211,367.80 (M)		1,724,697.73 (M)		ESTABLISHED BY (AGENCY) O.C.S. NORTH DACW 57-TT-C-0006	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		DATE Nov. 1976	
				ORDER 3 RD	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

DRIVE TO:

3.6 MILES SOUTH ALONG THREE CREEK ROAD (ELK LAKE ROAD) FROM THE JUNCTION TO HIGHWAY 20 IN SISTERS OREGON THEN 140 FT EAST TO TO STATION IN OLD BURN ABOUT 500 FT NORTH OF A WHITE FARM HOUSE IN THE SW 1/4 NW 1/4 SEC 28 T 155 R 10E.



SKETCH

DA FORM 1959
OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 67, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

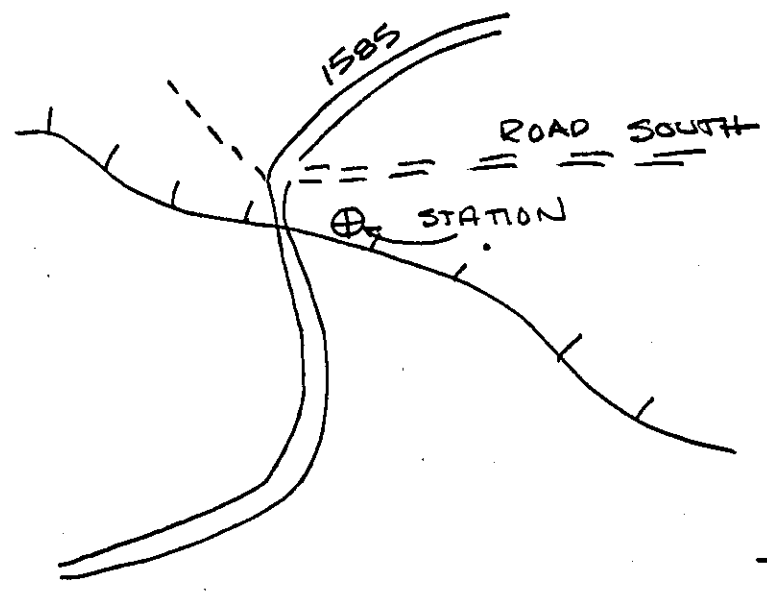
COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION SQUAW-BENCH-2 (HJ 33T 155 10E)	
LOCALITY SISTERS, ORE		STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) U.S. A.C.E.	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
207,973.80 (M)		1,729,566.13 (M)		DCS North	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
				DATE Nov, 1976	
				ORDER 380	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO:

3.1 MILES SOUTH ALONG THREE CREEK ROAD (ELK LAKE RD) FROM THE JUNCTION OF HIGHWAY 20 IN SISTERS OREGON TO USFS ROAD 1585; LEFT ON 1585 1.3 MILES TO TOP OF HILL, AND JUNCTION OF ROAD LEADING SOUTH, STATION IS ABOUT 90 FT SOUTH OF 1585 & ABOUT THE SAME WEST OF ROAD LEADING SOUTH.



SKETCH

DA FORM 1959 1 OCT 64 REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
 For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION SQUAW-HIGH	
LOCALITY SISTERS, ORE.		STAMPING ON MARK 31 ISS 10E		AGENCY (CAST IN MARKS) U.S. A.C.E.	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) 208,439.76		(EASTING)(NORTHING) 1,715,699.51		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
				DATE Nov. 1976	
				ORDER 3RD	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)	(GRID)		(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO :

A SUR CAP CEMENTED IN A ^{LARGE} FLAT ROCK 150 FT EAST OF A NEW USFS TIMBER ACCESS ROAD IN THE NE¹/₄ NW¹/₄ SEC. 31 T 15S, R 10E. THE STATION IS ABOUT 3.5 MILES SOUTH OF THE 1000 LINE ON A ROAD LEADING SOUTH FROM SAME 1/2 MILE WEST OF STATION TS-16.



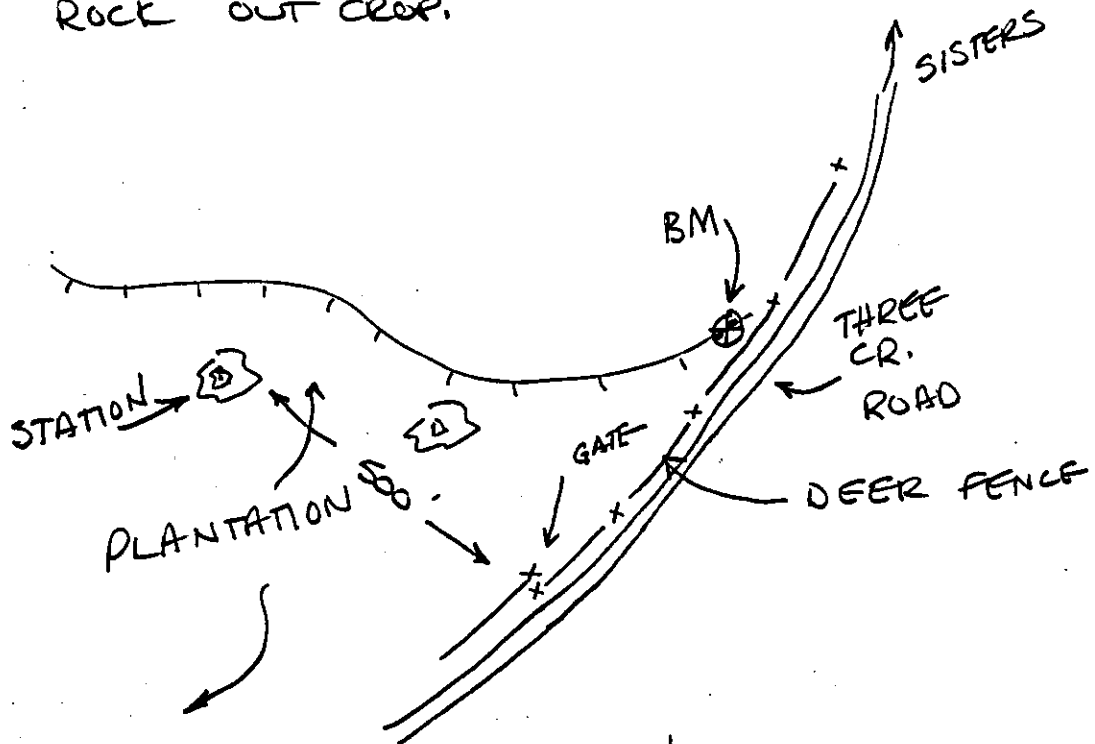
SKETCH

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION HIGHLINE (31 155 10E)	
LOCALITY SISTERS, ORE.		STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) U.S.A.C.E.	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) 205,456.34 (M)		(EASTING)(NORTHING) 1718,375.14 (M)		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION 3907.72 (M)		ESTABLISHED BY (AGENCY) DACW-5777-C-0006		DATE Nov. 1976	
1929 1/1947 ADJUSTMENT		ORDER 3 RD			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO:

5.1 MILES SOUTH ALONG THREE CREEK ROAD (ELK LAKE) FROM THE JUNCTION OF HIGHWAY 20 IN SISTERS REGION @ THE TOP OF A HILL - PROCEED WEST ^{ON FOOT} THROUGH GATE IN HIGH DEER FENCE 500 FT. UP HILL TO ROCK OUTCROP. STATION IS A BRASS CAP CEMENTED IN ROCK ON TOP OF ROCK OUTCROP.



SKETCH

DA FORM 1959
1 OCT 64

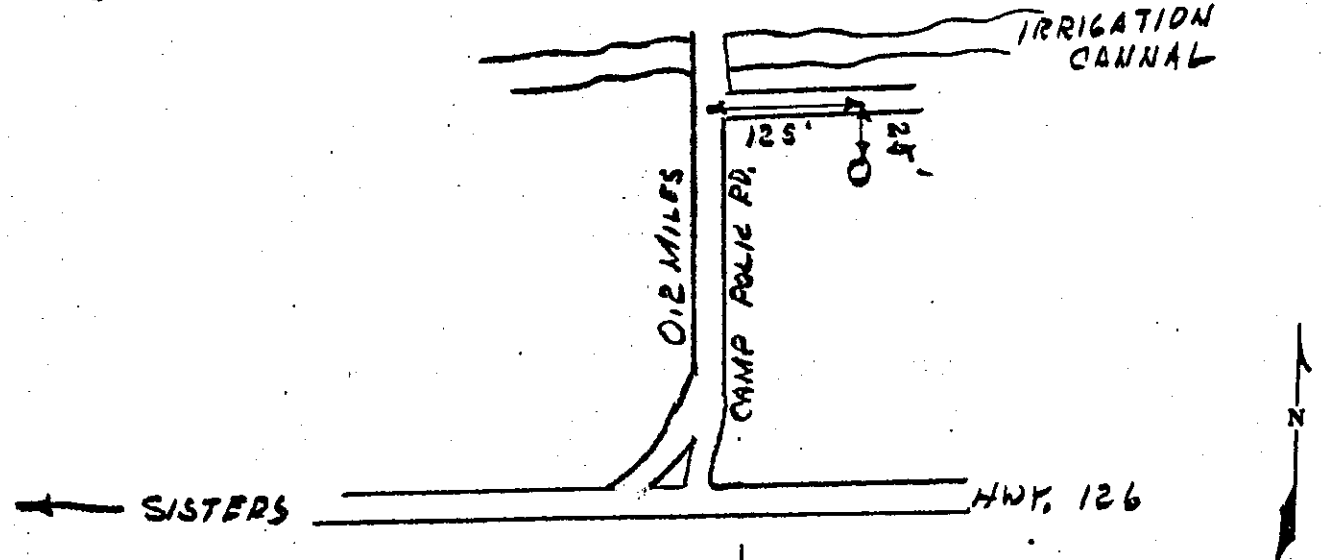
REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES		TYPE OF MARK SUR - CAP		STATION CLOVED DALE 1 (CHEN) 1-155 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK CLOVERDALE 1		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		ELEVATION (FT) 3121.973 (M)	
(NORTHING)(EASTING) (FT) 230,470.20 (M)		(EASTING)(NORTHING) (FT) 1741,975.90 (M)		DATUM 1929 W/1947 ADJUST. ESTABLISHED BY (AGENCY) DALW-57-77-C-0001	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		DATE Nov, 1976	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETTIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETTIC AZIMUTH	

OBJECT	AZIMUTH OR DIRECTION (GEODETTIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: SOUTH ON HWY #20 FROM SISTERS U.S. POST OFFICE 0.5 MILES, THENSE ~~EAST~~ ON HWY. #126 2.8 MILES, THENSE NORTH ON CAMP POLK RD. 0.2 MILES TO A ACCESS ROAD RIGHT RUNNING ALONG A IRRIGATION CANAL. STATION IS 125' ± FROM CAMP POLK RD. ALONG ACCESS ROAD AND 25' ± RIGHT OF ACCESS ROAD, STATION IS MARKED BY A METAL POST AND STANDARD SIGN.



SKETCH

COMMUNITY DESCHUTES	TYPE OF MARK BRASS CAP	STATION BM 2 45
LOCALITY SISTERS	STAMPING ON MARK SAME	AGENCY (CAST IN MARKS) USC EGS
LATITUDE	LONGITUDE	DATUM 1929 W/1947 ADJ
(NORTHING)(EASTING) 229,444.94	(EASTING)(NORTHING) 1,742,192.06	GRID AND ZONE OCS NORTH
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	DATE -

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

AS DESCRIBED ON USC EGS LEVEL LINE 11
 EUGENE TO REDMOND - PART OF
 TRILATERATION TO CLOVERDALE & CLOVERDALE-1

SKETCH

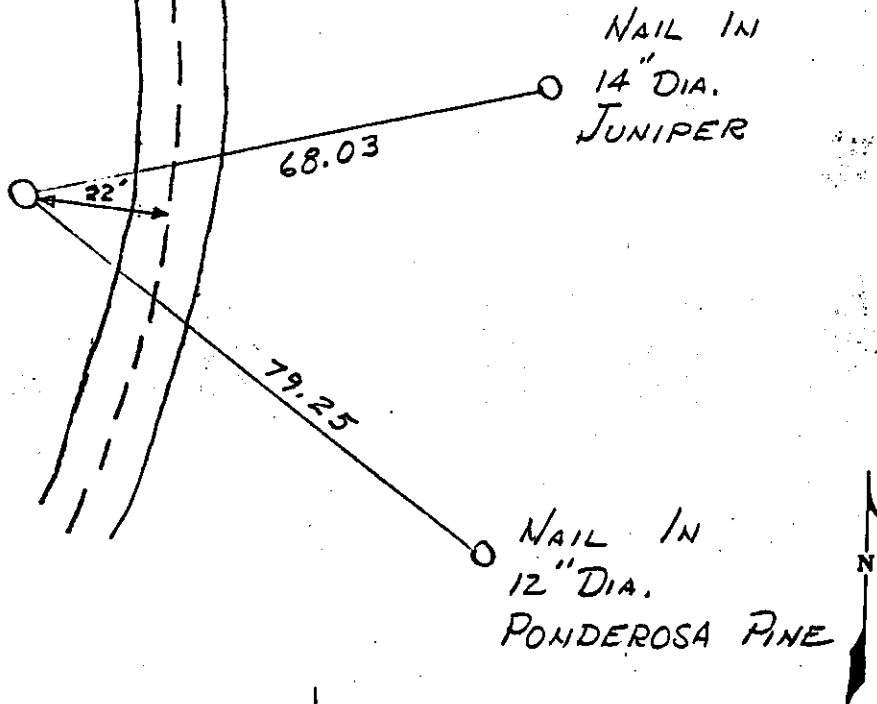


COUNTRY DESCHUTES Co.		TYPE OF MARK B.C.		STATION THOUSAND H.V. 35 15S, 10E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK SAME AS ABOVE		AGENCY (CAST IN MARKS) U.S.C.E.	
LATITUDE		LONGITUDE		ELEVATION (FT) 3401.152 (M)	
(NORTHING)(EASTING) (FT) 203,654.51 (M)		(EASTING)(NORTHING) (FT) 1737,693.69 (M)		DATUM 1929 4/1947 DESCHUTES	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		ESTABLISHED BY (AGENCY) DAKW-57-77-C-0006	
				DATE Nov. 1976	
				ORDER 3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

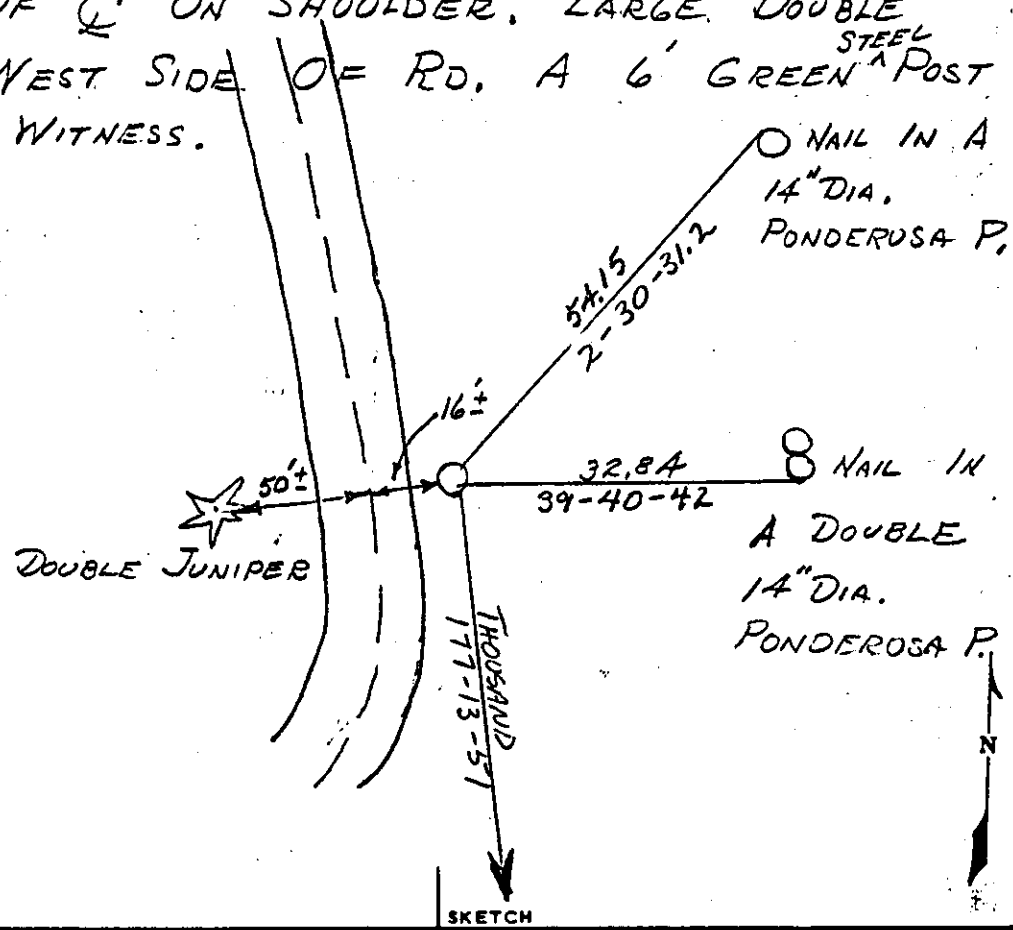
DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. "20 AND THREE CREEK LAKE RD. (ELM ST. OR ELK CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENSE S.E. ON TIMBER ACCESS RD. # 1000 5.2 MILES TO STATION. A BRASS CAP IN CONCRETE MON. 22 ± FT. WEST OF E ON RD. SHOULDER. STATION IS IN SMALL OPENING. A 6" GREEN STEEL FENCE POST WITH SIGN FOR WITNESS



SKETCH

COUNTRY DESCHUTES Co.		TYPE OF MARK I.R. ; SUR. CAP		STATION TS-1 H.V. 35 15S, 10E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK ? TS-1		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
204,404.98 (M)		1737,657.39 (M)		OCS NORTH	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
				DATE	
				Nov. 1976	
				ORDER	
				320	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. 20 AND THREE CREEK LAKE RD. (ELM ST. OR ELK CR RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENSE S. E. ON TIMBER ACCESS RD. # 1000 5.05 MILES TO STATION. A SUR-CAP IN CONCRETE MON. 12⁺ FT. EAST OF \odot ON SHOULDER. LARGE DOUBLE JUNIPER ON WEST SIDE OF RD. A 6' GREEN^{STEEL} POST AND SIGN FOR WITNESS.

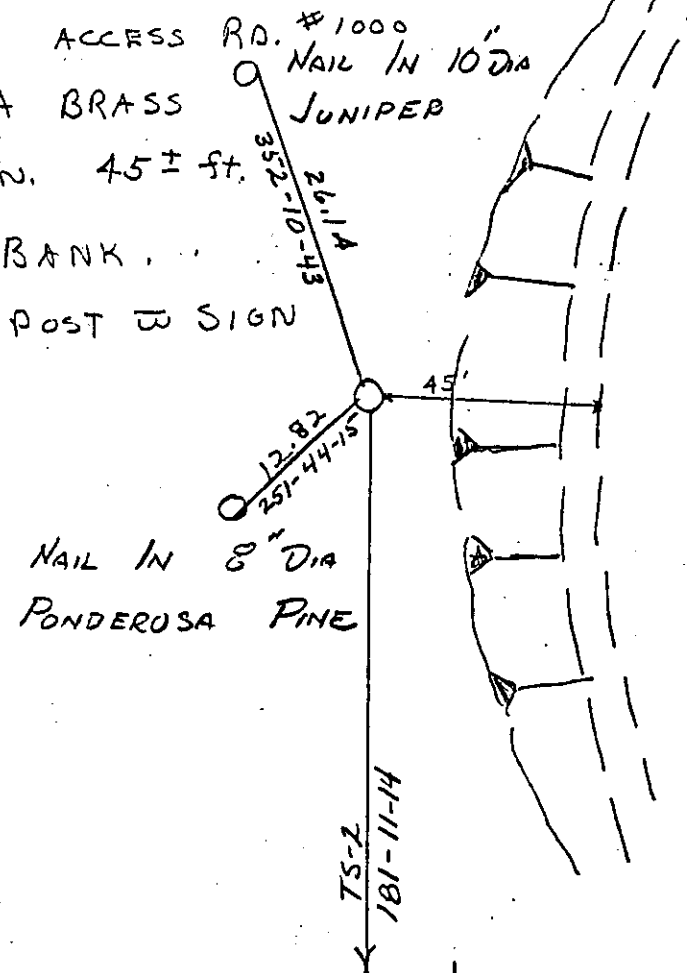


COUNTRY DESCHUTES Co.		TYPE OF MARK B.C.		STATION TS-3		H.V. 35 155.10E	
LOCALITY SISTERS ORE.		STAMPING ON MARK TS-3 H.V. 35 155, 10E		AGENCY (CAST IN MARKS)		ELEVATION (FT) (M) 3386.407	
LATITUDE		LONGITUDE		DATUM		DATUM 1929 w/1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) (M) 206,565.97	(EASTING)(NORTHING) (FT) (M) 1736,627.54	GRID AND ZONE OCS NORTH		ESTABLISHED BY (AGENCY) DAW 57-71-C-0006		DATE Nov. 1976	
				ORDER 3 RA			

TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

DRIVE TO DESCRIPTION: FROM INTERSECTION AND THREE CREEK LAKE RD. (ELM ST. OR.) SOUTH ON THREE CR. RD. 1.4 MILES S.E. ON TIMBER ACCESS RD. #1000 TO STATION. A BRASS CONCRETE MON. 45 ± ft. & TOP OF BANK. STEEL FENCE POST W SIGN

TOP OF BANK OF Hwy. 20 (ELK CR RD.) THENSE 4.42 MILES CAP IN WEST OF A 6th GREEN FOR WITNESS.

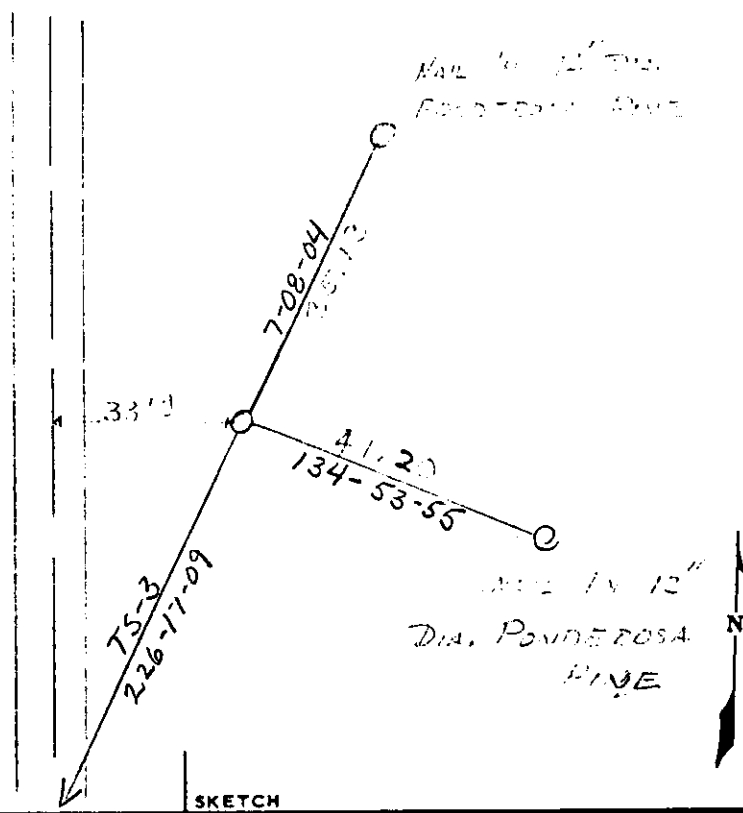


COUNTRY DESCUTES Co.		TYPE OF MARK I.R. 3 SUR. CAP		STATION TS-4 HW 35 153, 10 E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK 7-0-4		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE OCS NORTH	
207,537.98 (M)		1737644.19 (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		DATE Nov, 1976	
				ORDER 3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

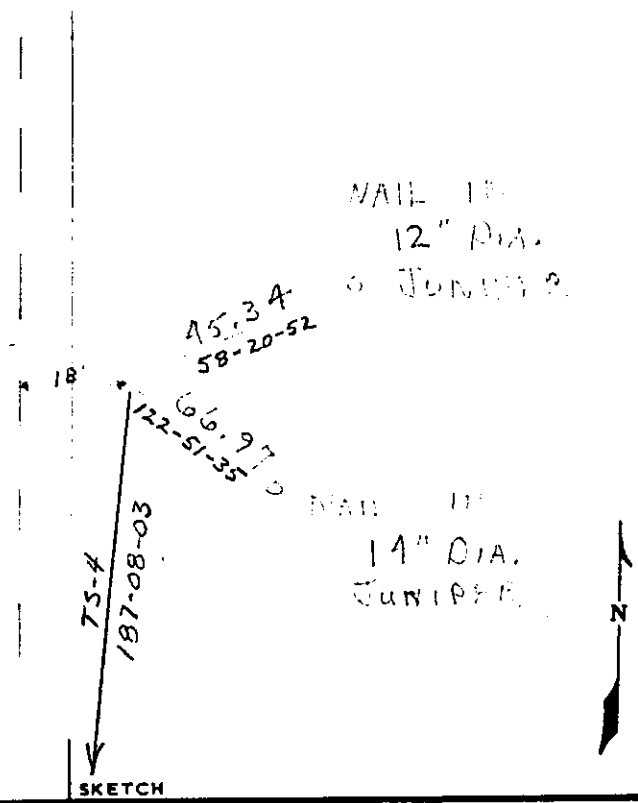
DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. 20 AND THREE CREEK LAKE RD. (ELM ST. OR BLK CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENSE S.W. ON TIMBER ACCESS ROAD 4.14 MILES TO STATION. A SUR. CAP IN CONCRETE MAIL 33 IN. DIA. OF 9, ON PE. SHOULDER. A 6" GREEN STAIN FENCE POST OR SIGN FOR WITNESS



COUNTRY DESCHUTES Co.		TYPE OF MARK I.R. SUR. CAP		STATION TS-5		AV. 35 155.10 E	
LOCALITY SISTERS. OFF.		STAMPING ON MARK TS-5		AGENCY (CAST IN MARKS)		ELEVATION (FT) (M) 3355.858	
LATITUDE		LONGITUDE		DATUM		1929 w/1947 ADJUST.	
(NORTHING)(EASTING) (FT) (M) 208,210.09 (M)		(EASTING)(NORTHING) (FT) (M) 1737,728.31 (M)		GRID AND ZONE OCS NORTH		ESTABLISHED BY (AGENCY) DAEW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE		DATE Nov. 1976	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH			
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)		GRID DISTANCE (METERS) (FEET)	

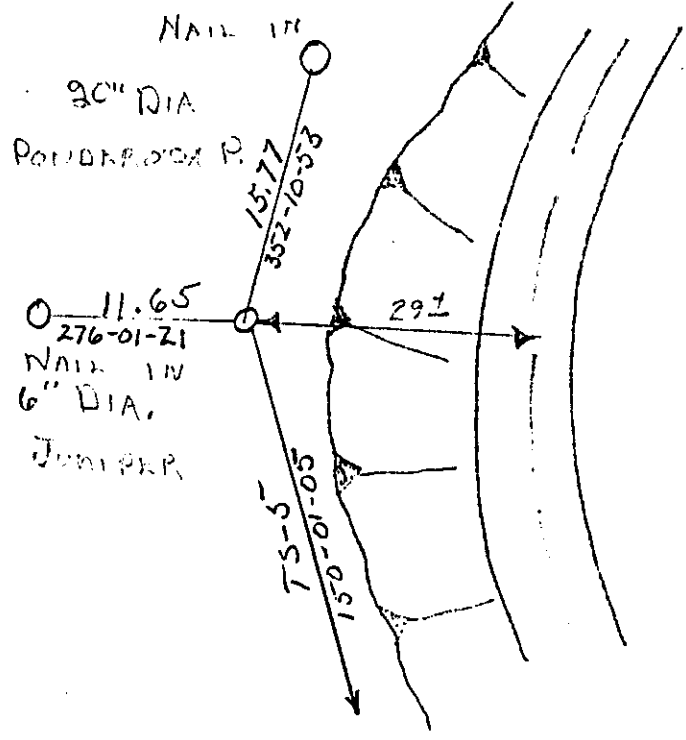
DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. #20 AND THREE CREEK LAKE RD. (LEFT SIDE OF 240 CR. RD.) SOUTH ON THREE CR. RD. FOR 1.4 MILES THENCE ON ON THREE ACCESS RD. FOR 4.62 MILES TO STATION. A SUR-CAP IS CONCRETE MORN. 18 IN. EAST OF E, ON RD. SHOULDER. A 6" SPIRAL STEEL FENCE POST IS SIGN FOR WARNING



COUNTRY DESCHUTES Co.		TYPE OF MARK I.S. 2 SUP-CAP		STATION TS-6 H.V. 26 155, 10 E	
LOCALITY SISTERS, OH.		STAMPING ON MARK TS-6		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
210,081.97 (M)		1736,648.36 (M)		OCS NORTH	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
				DATE	
				Nov. 1976	
				ORDER	
				3RD	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)(GRID)	(MAGNETIC)		(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. 20 AND THREE CREEK LAKE RD. (CHIN ST. OR RAY CR. RD.), SOUTH ON THREE CR. RD. 1.4 MILES THENCE S.E. ON NUMBER ACCESS RD. 1000 3.57 MILES TO STATION. A SUP-CAP IN CONCRETE WITH 29 THE WEST OF & TOP OF BANK. A 60' HIGH STEEL PILE POST SIGN FOR INTERSEC



SKETCH

DA FORM 1959 REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

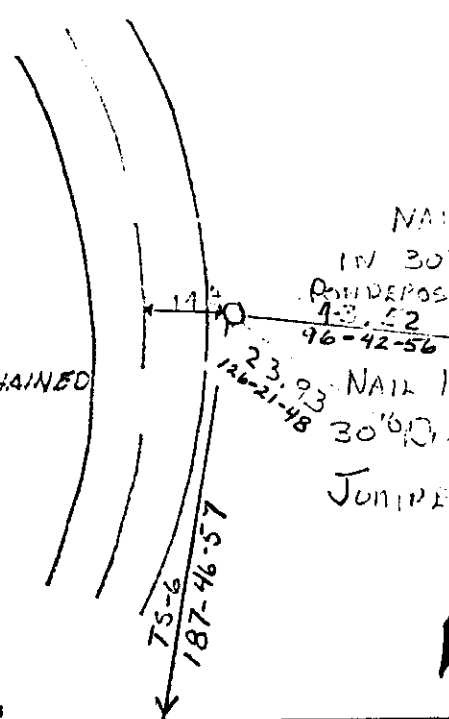
DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES Co		TYPE OF MARK I.P. SUR-CAP		STATION TS-7 H.V. 26 155.10E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK TS-7		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
210,940.52 (M)		1736,765.70 (M)		OCS NORTH	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HIGHWAY 20 AND THREE CREEK LAKE RD. (ELEM. ST. OR F.M. CR. RD.) GO ON THREE CREEK RD. 1.4 MILES THERE IS S.E. OF TIMBER ACCESS RD. 1000 3.12 MILES TO STATION. A SURV CAP AND CONCRETE MON. 14" DIA. EAST OF E. OF RD. SHOULDER. A 6" GREEN STEEL WIRE POST A SIGN FOR WITNESS

R.R. DISTANCES WERE SLOPE CHAINED



DA FORM 1959
1 OCT 64

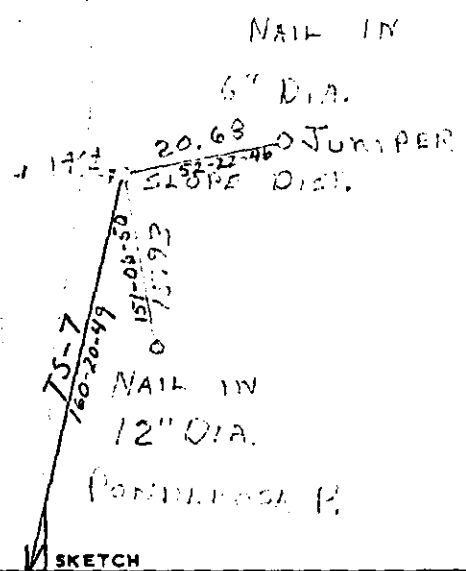
REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DISCOUNTS Co.		TYPE OF MARK I.P. 3 SUR-CAP		STATION TS-8 H.V. 26 155, 105	
LOCALITY SISTERS, ARK.		STAMPING ON MARK TS-8		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) 211970.51 (M)		(EASTING)(NORTHING) 1736397.86 (M)		GRID AND ZONE CGS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE (M)	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION 3318.404 (M)		1929 W/1947 ADJUSTMENT		ESTABLISHED BY (AGENCY) DAW 57-77-C-000	
DATE Nov. 1976		ORDER 3RD			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HIGHWAY AND THREE CREEK PARK RD. (EAST ST. OR JAY CR. RD.) GO ON THREE CR. RD. 1.4 MILES THENCE S. ON TIMBER ACCESS RD. 3.21 MILES TO STATION. A SUR-CAP IN CONCRETE MON. 14" DIA. EAST OF 4' ON RD. SHOULDER. A 6" GREEN STEEL PAVEMENT SIGN FOR TRUCKERS



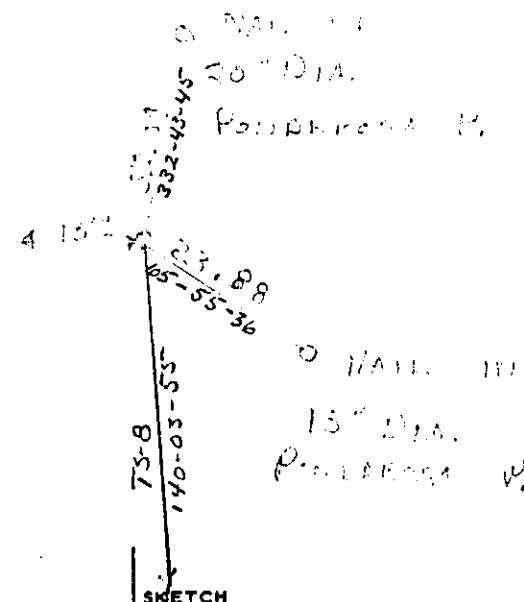
COUNTRY DESCRIPTES Co.		TYPE OF MARK I.R. 3/200-200		STATION TS-9 H.V. 26 188, 10E	
LOCALITY SISTERS, ORL.		STAMPING ON MARK 10-9		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION (FT) 3305, 233 (M)	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATUM 1929 w/1947 ADJUSTMENT	
212,769.55 (M)		1735,728.94 (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATE Nov. 1976	
				ORDER 3 RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)		GRID DISTANCE (METERS) (FEET)	

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 20 AND TRAIL CREEK LAKE RD. (E.H. ST. OR L.R. CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THROUGH G.O. ON TIMBER ACCESS RD. #1000 3.00 MILES TO STATION. A SUR-CON IN CONCRETE MON. 13' DIA. EAST OF E, ON RD. SHOULDER. A 68 GREEN CHAIN LINK FENCE TO SIGN FOR UNCLASSED

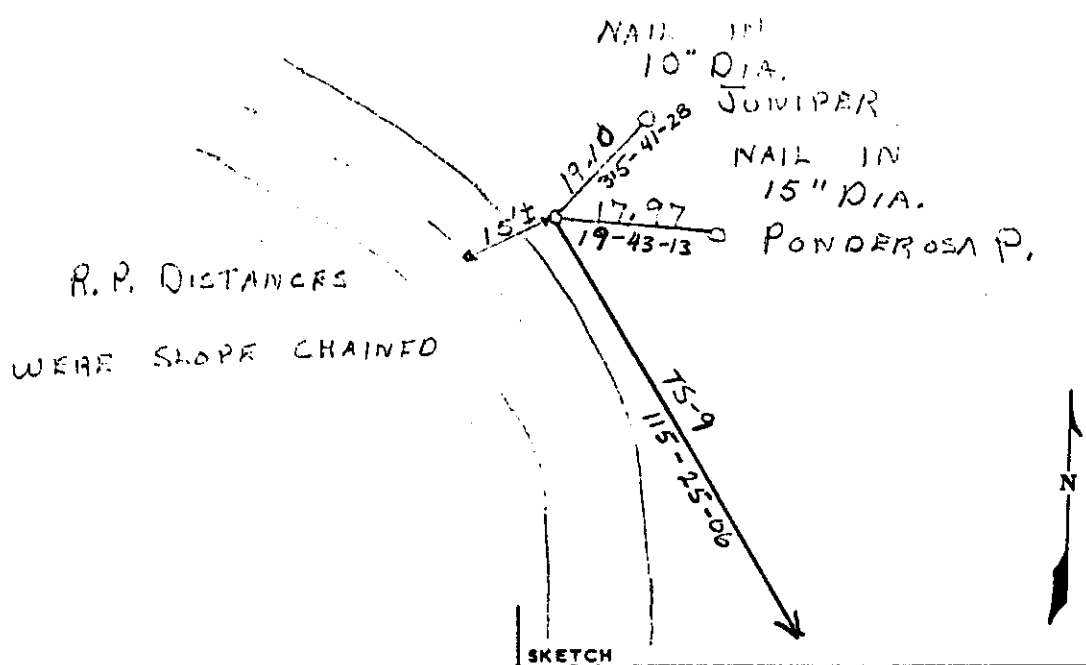
H.R. C. 10121000
MARK STONE PLAINED



COUNTRY DESC. HUTEK Co.		TYPE OF MARK I.R. 3 SUR-CAP		STATION TS-10 H.V. 26 15S, 10E	
LOCALITY SISTERS, OR.		STAMPING ON MARK TS-10		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) 213 113.03 (M)		(EASTING)(NORTHING) 1735, 006.16 (M)		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION (FT) 3298.412 (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006		DATE Nov. 1976	
1929 7/1947 ADJUSTMENT		ORDER 3 RD			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

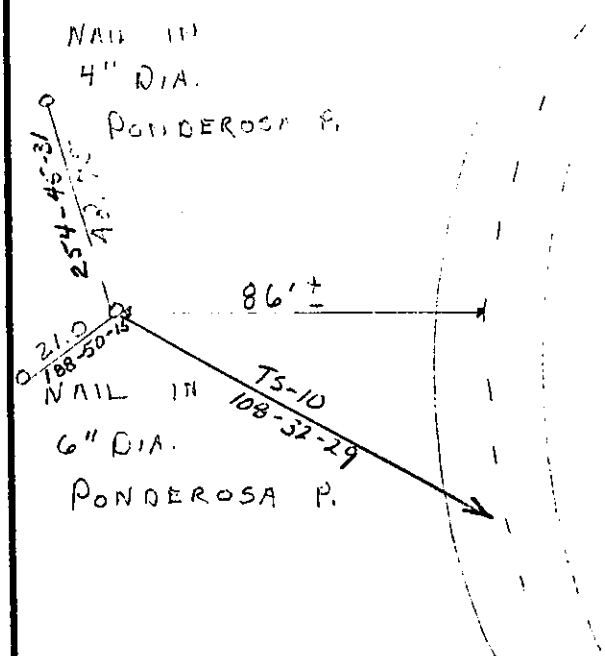
DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY #20 AND THREE CREEK LAKE RD. (ELM ST. OR ELK CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENCE S.E. ON TIMBER ACCESS RD. #1000 2.83 MILES TO STATION. A SUR-CAP IN CONCRETE MON. 15 ± FT. EAST OF ♀ ON RD. SHOULDER. A 6" GREEN STEEL FENCE POST OR SIGN FOR WARNING



COUNTRY DESCHUTES Co.		TYPE OF MARK I.R. SUB-CAP		STATION TS-11		H.Y. 27 153	
LOCALITY SISTERS, ORE.		STAMPING ON MARK TS-11		AGENCY (CAST IN MARKS)		ELEVATION (FT) 3294.251 (M)	
LATITUDE		LONGITUDE		DATUM		DATUM 1929 W/1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) 213,473.10 (M)	(EASTING)(NORTHING) (FT) 1,733,932.61 (M)	GRID AND ZONE OCS NORTH		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006			
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		DATE Nov. 1976		ORDER 300	

TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

DRIVE TO DESCHUTES FROM INTERSECTION OF HIGHWAY 20 AND THREE CREEK LAKE ROAD. DRIVE ON HIGHWAY 20 SOUTH ON THREE CREEK ROAD 1.60 MILES TO STATION. A SUB-CAP IN EVIDENTLY MARK 86' WEST OF S, ON THE SHORELINE, A 6" GREEN STEEL FENCE POST TO BE PLACED FOR MARKING.



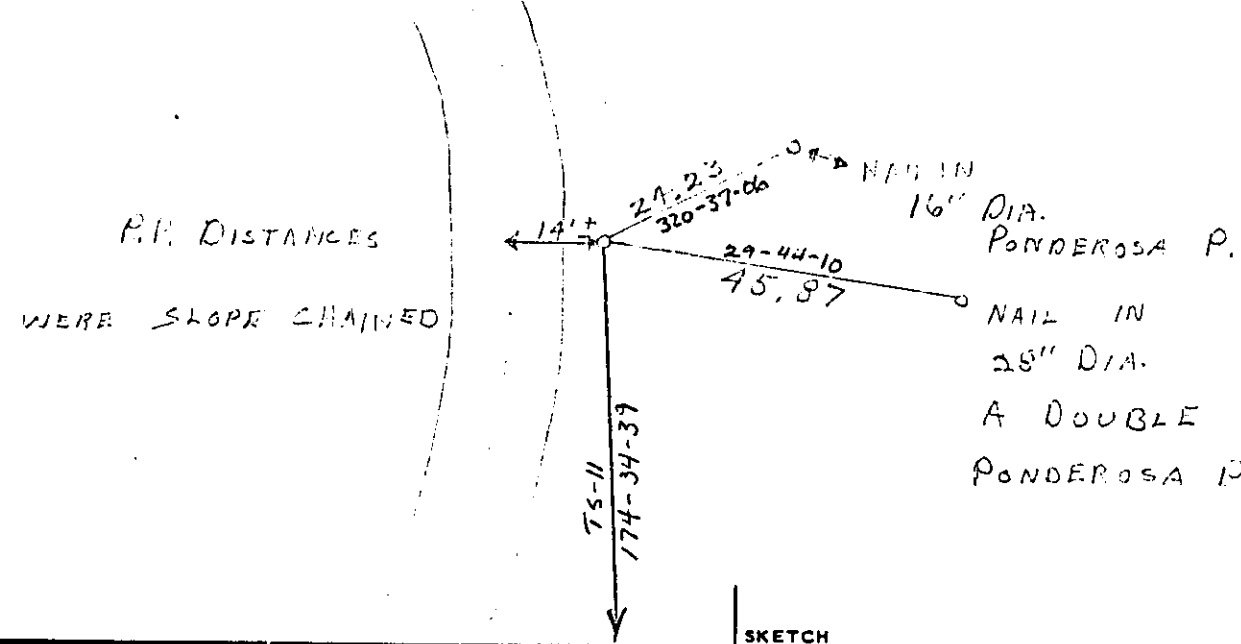
SKETCH

COUNTRY DESCHUTES Co.		TYPE OF MARK B.C.		STATION TS-12 H.V. 22 155,10E	
LOCALITY TIPPS, ORA		STAMPING ON MARK TS-12 H.V. 22 155,10E		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION 3272.872	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATUM 1929 W/1947 ADJUST	
216,025.57 (M)		1733,670.32 (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-000	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATE Nov. 1976	
				ORDER 32	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 22 AND THREE CREEK LAKE RD. 0.1 KM S. OR E. OF P. POINT SOUTH ON THREE CREEK RD. 1.1 MILES THENCE S.E. ON PONDOSA LAKE RD. 2.07 MILES TO STATION. A BRASS NAIL IN CONCRETE 14' 1" EAST S. OF THE SHOULDER. A 6" GREEN STAIN 174-34-39



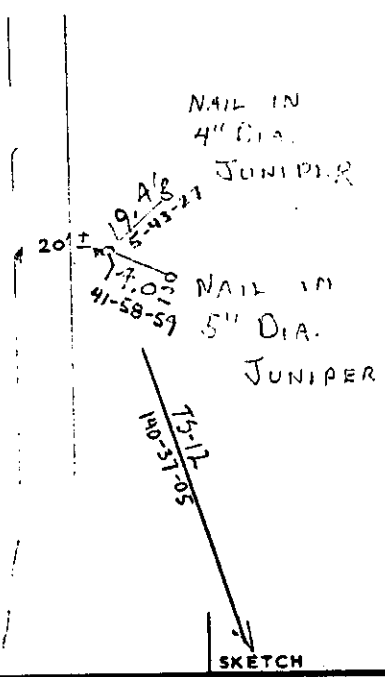
SKETCH

COUNTRY D. C. HUTCHES, Co.		TYPE OF MARK I.P. SUR. CAP		STATION TS-13 H.V. 22 15S. 10E	
LOCALITY S. 1/4 Sec. 10, T. 22 N., R. 15 E., S. 10 E.		STAMPING ON MARK TS-13		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
217,085.96 (M)		1,732,819.87 (M)		OCS NORTH	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
				DATE	
				Nov. 1976	
				ORDER	
				3 RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DESCRIPTION: From intersection of Post 20 and Timber Creek Road, 1.82 miles to east of station. A SUR. CAP IN (MAGNETIC) 20' ± S. EAST OF STATION. RE. STATION. 68 GR. STEEL NAIL IN 4" DIA. JUNIPER 19-AB 12-11-71
 7.02' NAIL IN 5" DIA. JUNIPER 41-58-59
 140-37-05



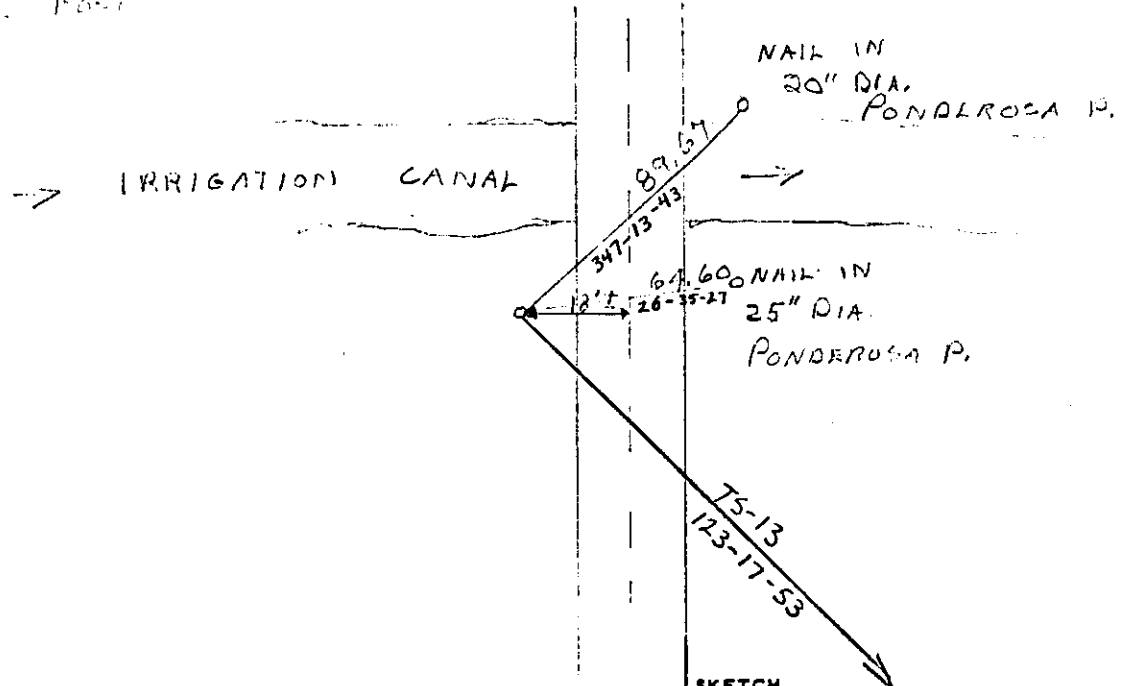
SKETCH

COUNTRY NEACHUTES Co.		TYPE OF MARK I.R. } SUR-CAP		STATION TS-14 H.V. 22 15S, 10E	
LOCALITY SITERS. SPR.		STAMPING ON MARK TS-14		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION (FT) 3283.142 (M)	
(NORTHING)(EASTING) (FT) 218,720,20 (M)		(EASTING)(NORTHING) (FT) 1730,331,78 (M)		DATUM 1929 4/1947 ADJ.	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		ESTABLISHED BY (AGENCY) DAGW 57-7 C-0006	
				DATE Nov. 1976	
				ORDER 320	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 20 AND THREE CREEK LAKE RD. (ELEM. ON OR 200 CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES TURNING S.E. ON TIMBER ACCESS RD. 1.22 MILES TO STATION. A SUR-CAP IN CONCRETE MON. 18" ± H. WEST OF S. ON RD. SHOULDER. A 60 GROSS STEEL PONDROSA P. IS SET FOR REFERENCE.

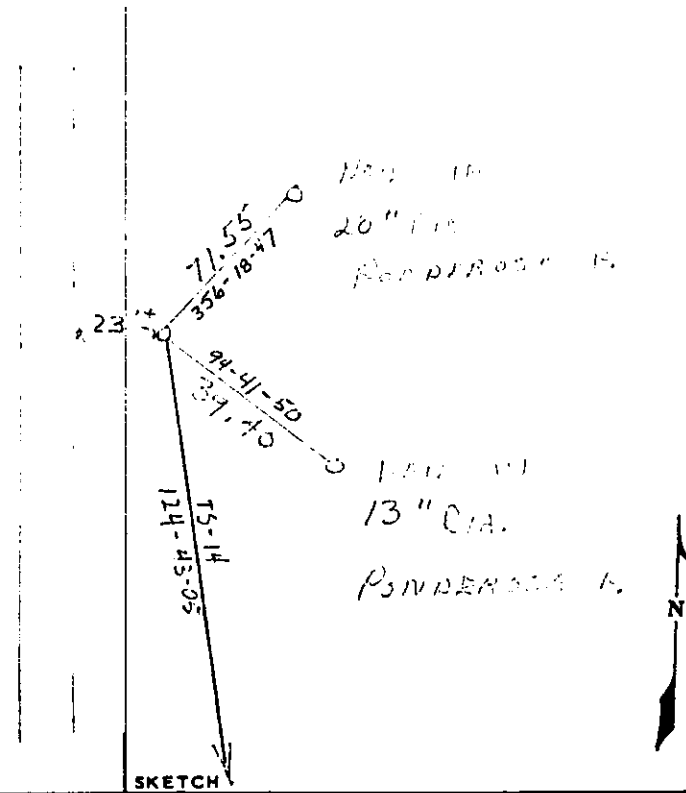


COUNTRY DEERHILLS Co		TYPE OF MARK B.C.		STATION TS-15 P.P.H.V. 16 155.105	
LOCALITY SHERMAN CO. WYO.		STAMPING ON MARK TS-15 H.V. 16 155.105		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION (FT) (M) 3265.310	
DATUM		DATUM		1929 W/1947 ADJUST.	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		ESTABLISHED BY (AGENCY)	
221,390.49	1726,478.00	OCS NORTH		DAGW 57-77-C-006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		DATE	ORDER
				Nov. 1976	3 RD

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO OBSERVATION FROM INTERSECTION OF HWY #20 AND THREE CREEK LANE W. HWY ST. OR FUR CR. RD. SOUTH ON THREE CREEK LANE W. HWY TRAVEL S.E. ON TIMBER ACCESS RD. #1000 0.27 MILES TO STATION. A BRASS CAP IN CONCRETE 110.23' W. EAST OF C, ON RD. SHOULDER. A 6" GREEN STEEL FENCE POSTED SIGN FOR UNLINES

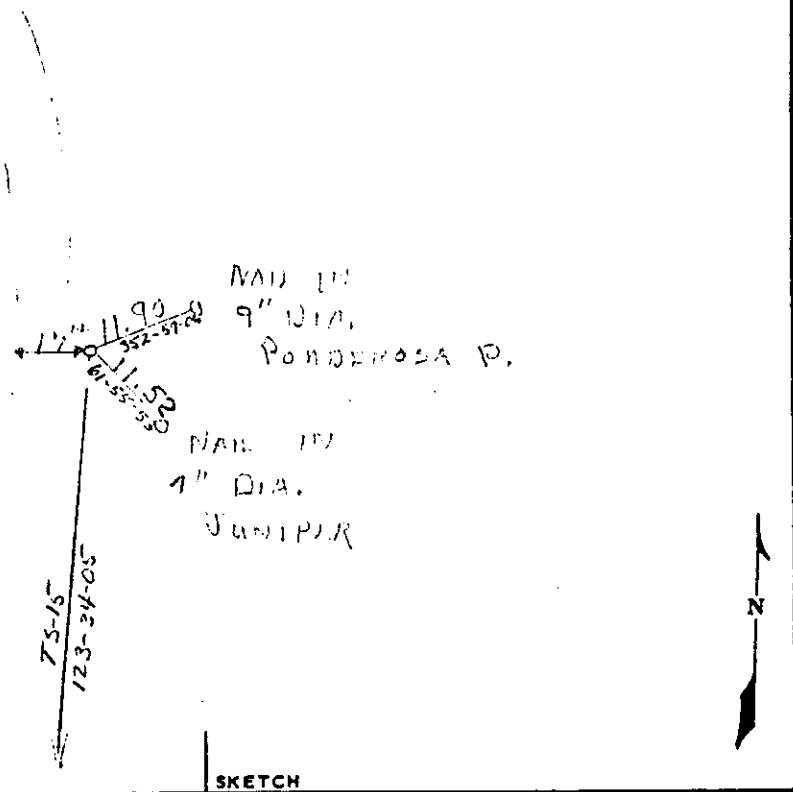


COUNTRY DESCRIPTIVE		TYPE OF MARK I.R. 3 SUR-CAP		STATION TS-16 H 815510E	
LOCALITY SIEFFER, (V.D.)		STAMPING ON MARK TS-16		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
224,294.43 (M)		1722,116.99 (M)		OCS NORTH	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
				ESTABLISHED BY (AGENCY)	
				DAGW 57-77-C-0006	
				DATE	
				Nov. 1976	
				ORDER	
				3 PD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 20
 AND THREE CREEK LAKE RD. (ELEM ST. OF LAK. CR. RD.)
 SOUTH ON THREE CR. RD. 1.4 MILES THENCE N.W.
 ON NUMBER ACCESS RD. 0.75 MILES TO STATION.
 A SUR-CAP IN COLLAR NO. 17 3/4" DIA. EAST OF
 RD. SHOULDER. A 6" GREEN FENCE POST FOR WITNESS

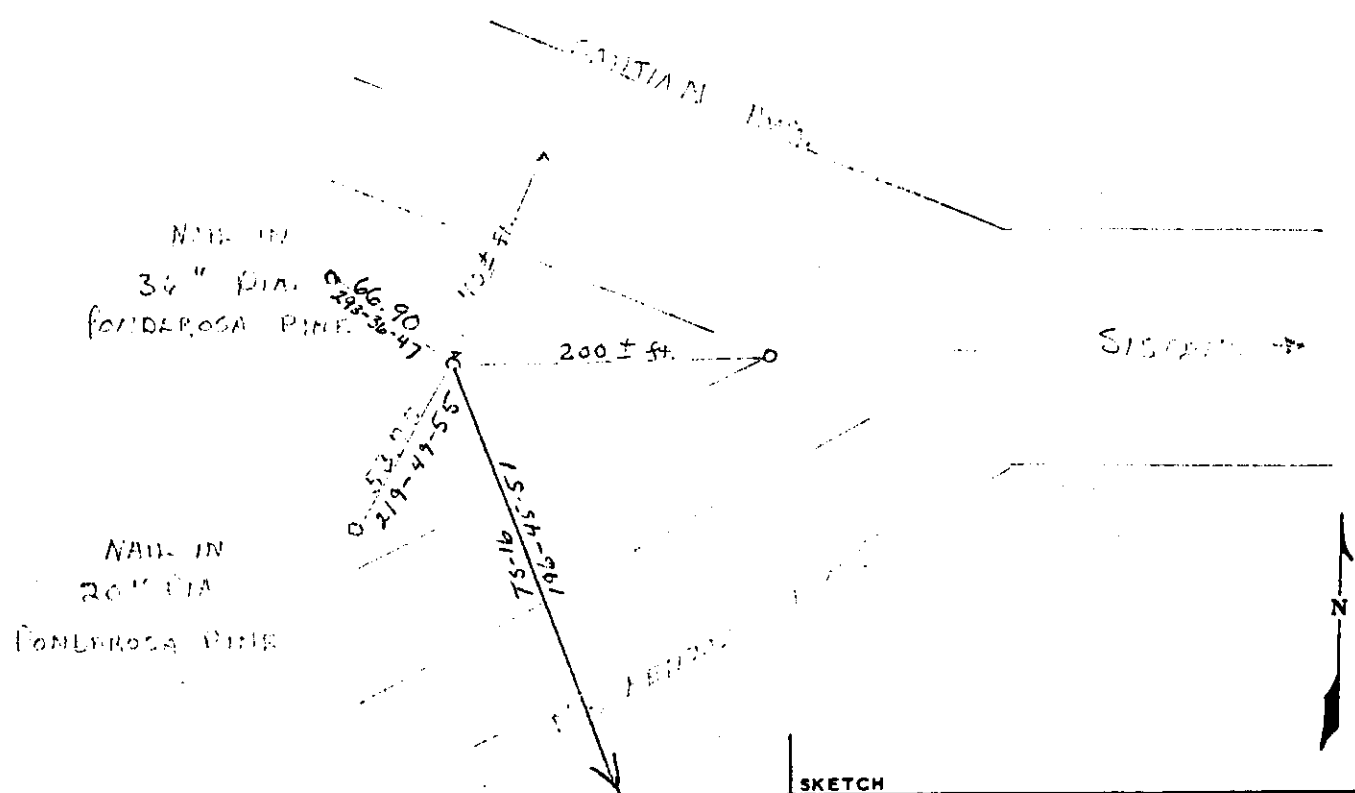


SKETCH

COUNTRY DESCHUTES CO.		TYPE OF MARK BR: CAP		STATION SISTERS H.V. 5 155 10E	
LOCALITY SISTERS BRD.		STAMPING ON MARK SISTERS H.V. 155 10E		AGENCY (CAST IN MARKS) U.S.G.E.	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M) 229,711.42 (M)		(EASTING)(NORTHING) (FT) (M) 1,723,751.79 (M)		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION (FT) (M) 3187.769 (M)		DATUM 1929 W/1947 ADJUSTMENT		ESTABLISHED BY (AGENCY) DAEW 57-71-C-0006	
DATE Nov. 1976		ORDER 3 RD			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTIONS MONUMENT LIES 200± FT. WEST OF INTERSECTION OF Mc KENZIE HWY & SANTIAM HWY. STATION IS A PILE OF CONCRETE 70± IN. SOUTH OF THE J. OF THE SANTIAM HWY. MARKED BY A STANDARD SIGN AND METAL PILE.



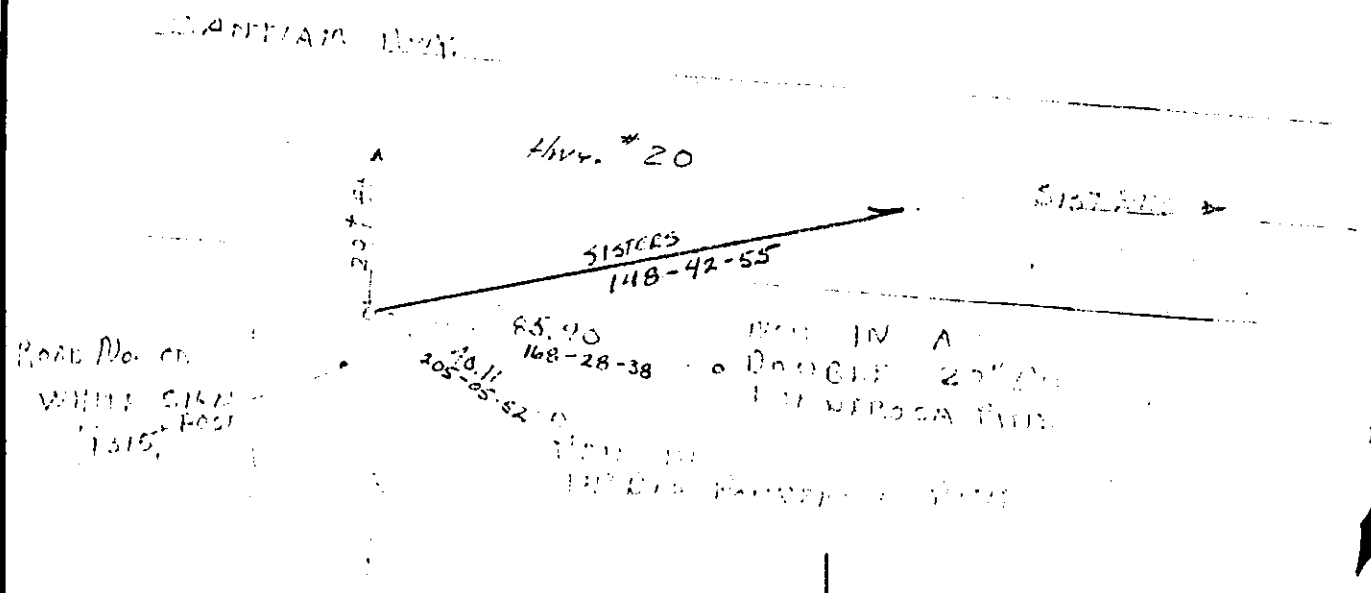
COUNTRY OREGON, CO.		TYPE OF MARK CONCRETE		STATION SSB-1 H&U 5 152 10E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK SSB-1		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING)	(FT)	(EASTING)(NORTHING)	(FT)	GRID AND ZONE	
233,094.61	(M)	1,721,696.02	(M)	OCS NORTH	
(NORTHING)(EASTING)	(FT)	(EASTING)(NORTHING)	(FT)	GRID AND ZONE	
	(M)		(M)	ESTABLISHED BY (AGENCY)	
				DACW 57-77-C-0006	
				DATE	ORDER
				Nov. 1976	380

TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	(FEET)	GRID DISTANCE (METERS)

Drive to Description: Roadment 1.7 miles west of Sisters U.S. Post Office, 20' south of R. Hwy 20 on shoulder of road.

A sidewalk in concrete.

Marked by a standard sign and metal pin.



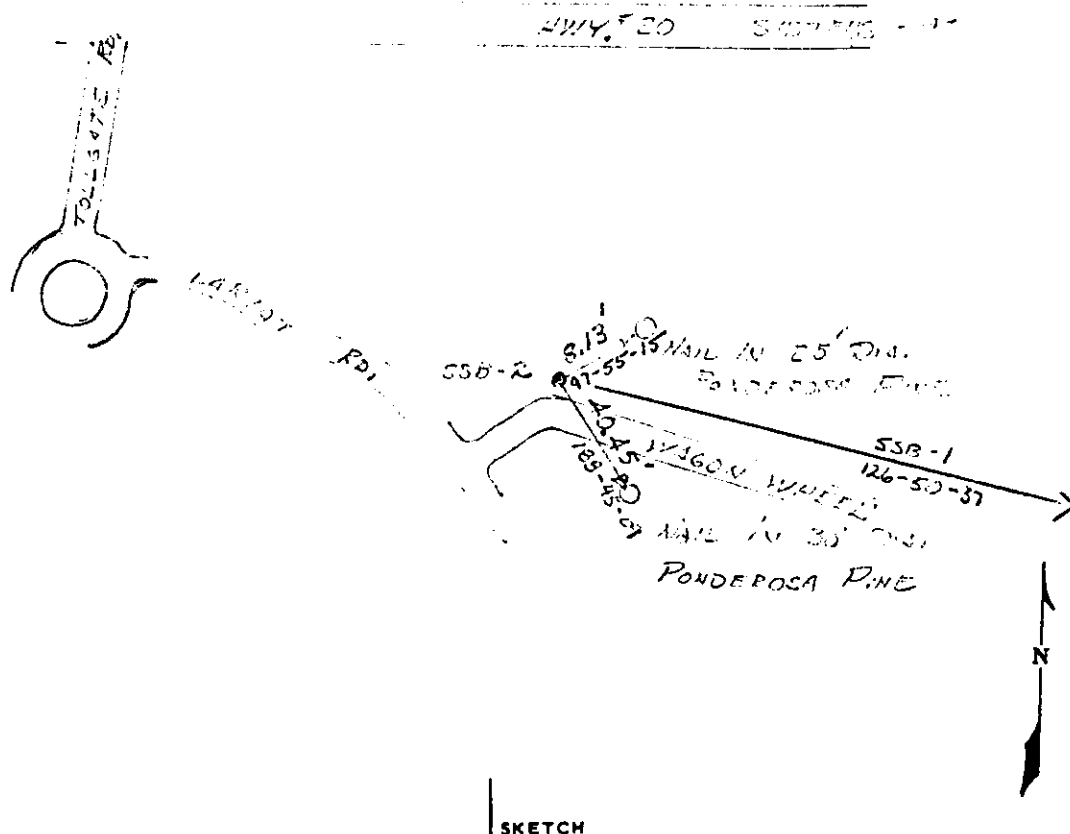
SKETCH

COUNTRY DESCHUTES CO.		TYPE OF MARK SUR-CAP		STATION SSB-2 H 31 143 10E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK SSB-2 1976		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION (FT) (M)	
DATUM		DATUM		-	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		ESTABLISHED BY (AGENCY)	
236,196.01	1717,556.86	DCS NORTH		DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		DATE	ORDER
				Nov. 1976	3RD

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO DESCRIPTION: NORTH ON HWY. 20 2 1/2 MILES FROM SISTERS U.S. Post Office, THENCE LEFT ON LARSEN RD., THENCE LEFT ON YAGOV WHITE RD. 200'± TO STATION. STATION BEING SUR-CAP IN CONCRETE MOUNT MARKED BY A STANDARD SIGN AND METAL POST.

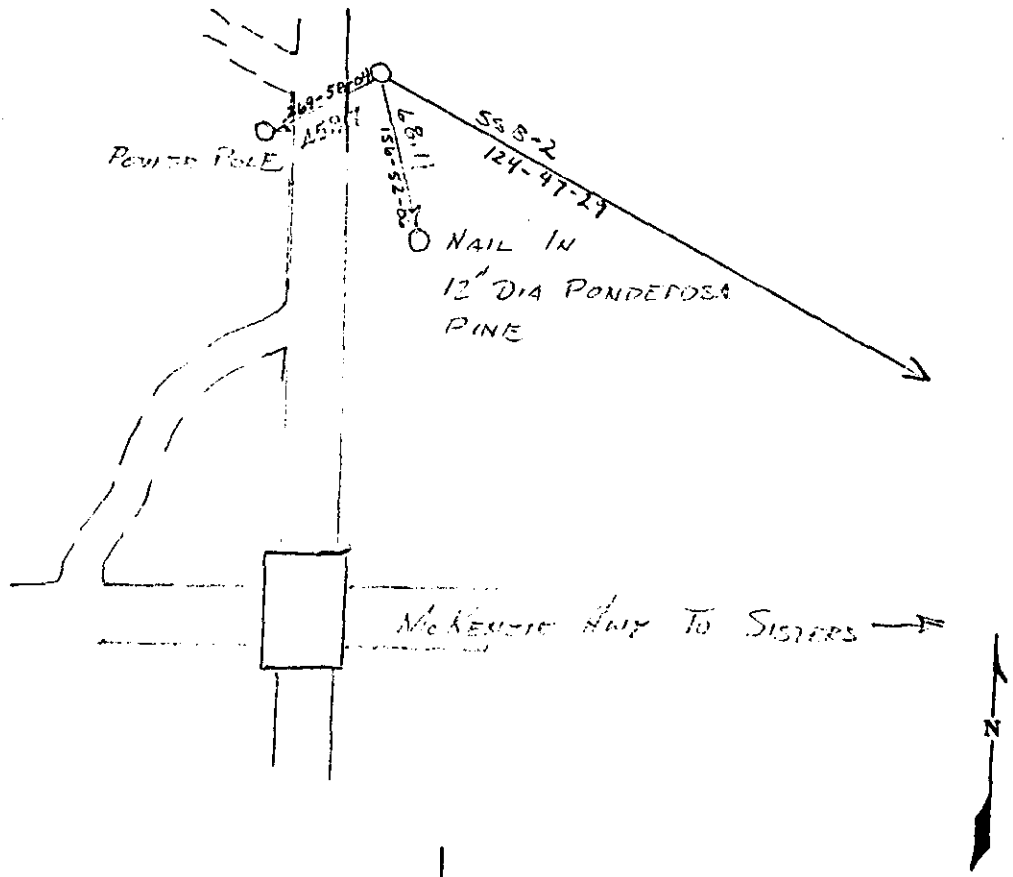


COUNTRY DESCRIBES		TYPE OF MARK SUR-C.		STATION SSB-3		HEV 31 145 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK SSB-3		AGENCY (CAST IN MARKS)		ELEVATION (FT) 3258.052 (M)	
LATITUDE		LONGITUDE		DATUM		DATUM 1929 w/1947 ADJUSTMENT	
(NORTHING)(EASTING) 238,604.74 (M)	(FT)	(EASTING)(NORTHING) 1714,090.04 (M)	(FT)	GRID AND ZONE OCS NORTH		ESTABLISHED BY (AGENCY) DAWG 57-77-C-0006	
(NORTHING)(EASTING) (M)	(FT)	(EASTING)(NORTHING) (M)	(FT)	GRID AND ZONE		DATE Nov. 1976	ORDER 3RD

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD) (SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

2 LINE TO DESCRIPTION: NORTH ON MCKENZIE HWY. 3.6 MILES TO
 A ACCESS ROAD RIGHT, (400' PAST OVERHEAD BRIDGE,)
 THESE PAST 1.4 MILES ON A PRIVATE ROAD TO STATION.
 STATION IS A SUR-CAN 10'± HIGH 2"± OF ROAD.
 MARKED BY A STANDARD SIGN ON METAL POST.

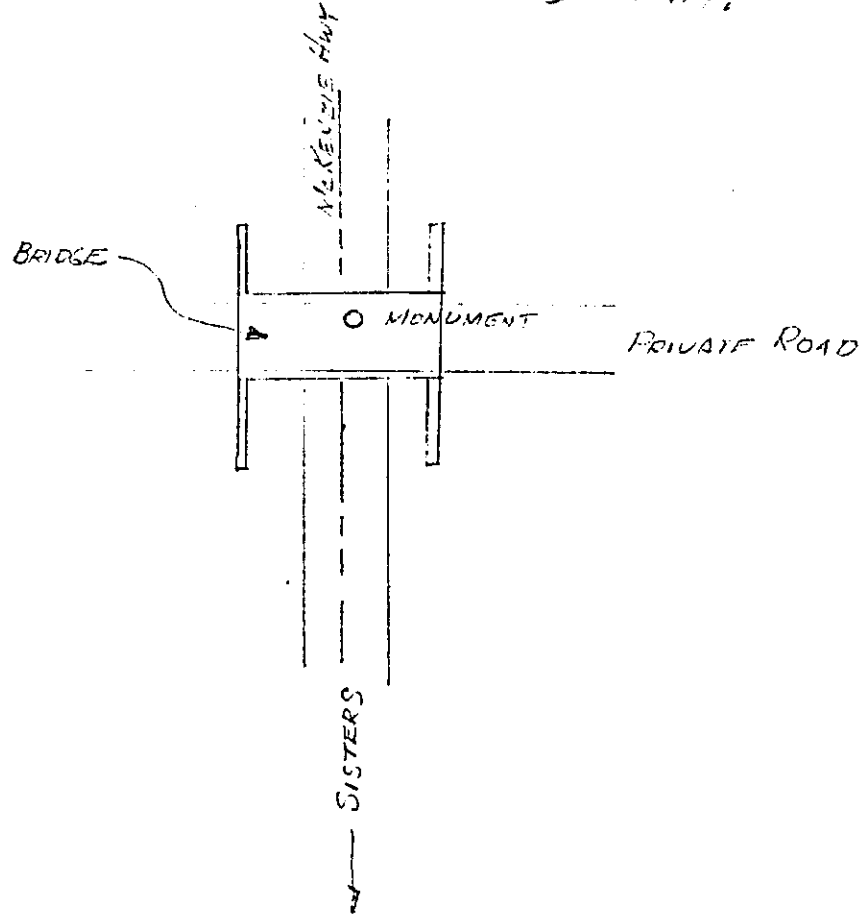


SKETCH

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION SSB-4 H&V 1 153 9E	
LOCALITY SISTERS OCE.		STAMPING ON MARK SSB-4 NY 1 153 9E		AGENCY (CAST IN MARKS) U.S.C.E.	ELEVATION (FT) 3275.053 (M)
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) 232,418.81 (M)		(EASTING)(NORTHING) (FT) 1713,663.74 (M)		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
DATE Nov. 1976		ESTABLISHED BY (AGENCY) DALW 57-77-6-0006		ORDER 3RD	

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DISPOSITION: NORTH ON MCKENZIE HWY 2.5 MILES FROM SISTERS U.S. POST OFFICE. STATION IS A BRASS CAP IN THE NORTH LANE OF A BRIDGE OVER A RIVER HWY.

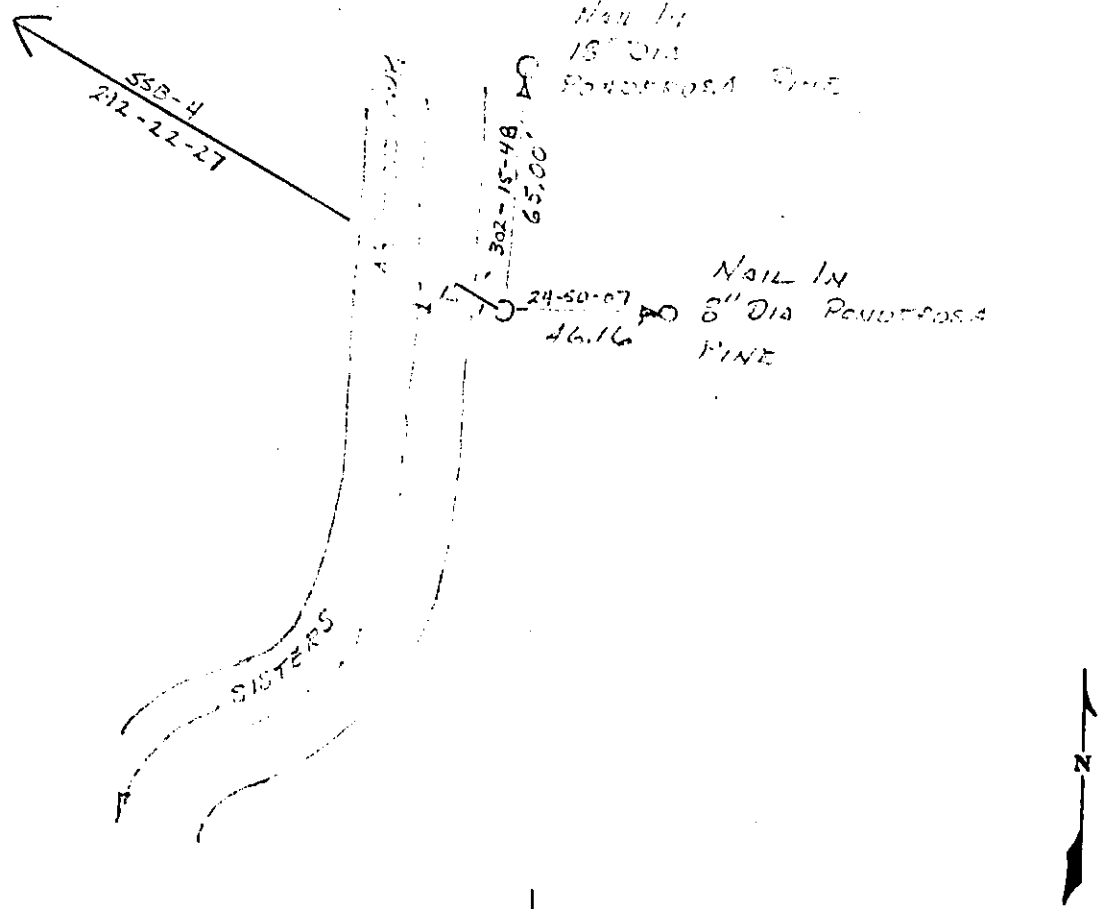


SKETCH

COUNTRY DESCHUTTS		TYPE OF MARK SUB-010		STATION SSB-5 H&V 6 15S 10E	
LOCALITY SISTERS, COE		STAMPING ON MARK SSB-5		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION (FT) 3225.571 (M)	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATUM 1929 W/1947 ADJUSTMENT	
230,606.16 (M)		1,718,065.23 (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATE Nov. 1976	
				ORDER 3RD	

TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETTIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETTIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETTIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

POINT TO DESCRIPTION: NORTH ON VERMONT HWY. 16 MILES FROM SISTERS, COE COUNTY, VERMONT. STATION SSB-5 IS ON A 15' x 15' ON SHOULDER. MARKED BY 1" DIA. PINE NAIL IN 8" DIA. PAINTED PINE.

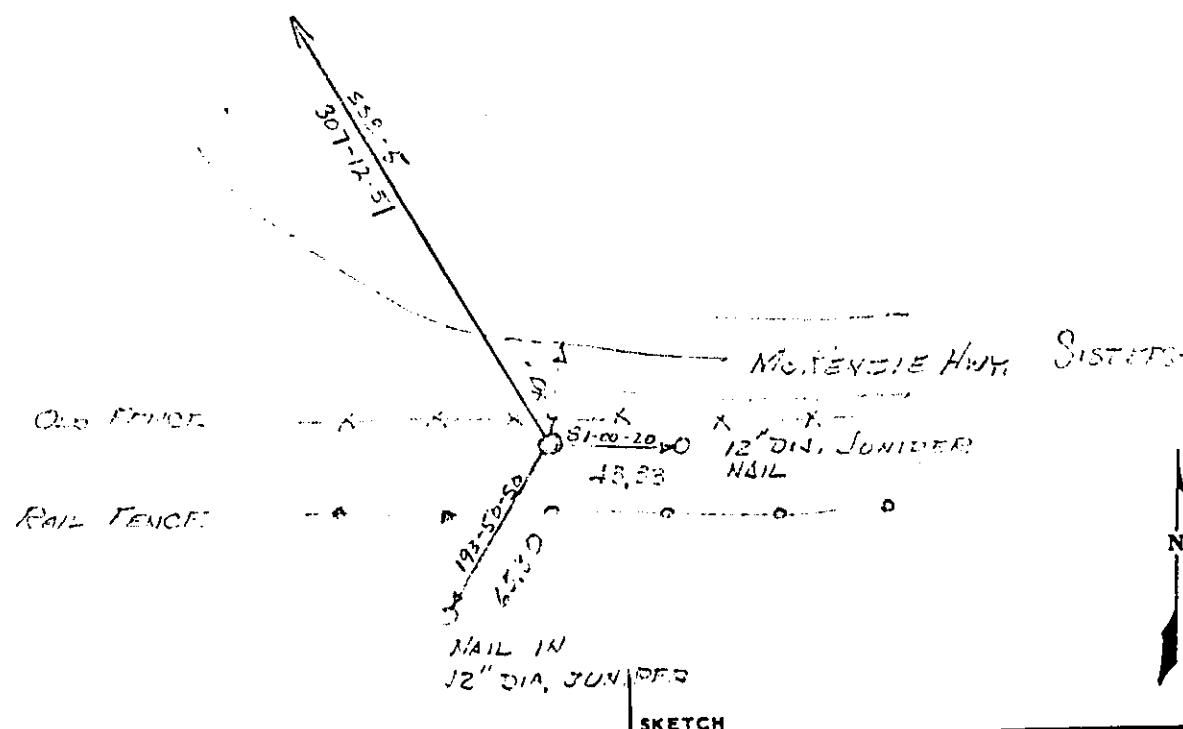


SKETCH

COUNTRY DESCRIBES		TYPE OF MARK BRASS CAP		STATION SSB-6 H&U B 152 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK SSB-6 HV 5 15 S 10 E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		DATUM 1929 W/1947 ADJUSTMENT	
(NORTHING)(EASTING) 229,627.02	(FT) (M)	(EASTING)(NORTHING) 1719,355.60	(FT) (M)	GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING)	(FT) (M)	(EASTING)(NORTHING)	(FT) (M)	GRID AND ZONE	
TO OBTAIN				TO THE GEODETIC AZIMUTH	
TO OBTAIN				TO THE GEODETIC AZIMUTH	

OBJECT	AZIMUTH OR DIRECTION (GEODETTIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO DEPARTMENT : NORTH ON McFENZIE HWY. 1.3 MILES FROM SISTERS U.S. POST OFFICE. TURN LEFT 10' SOUTH OF R HWY. STATION BEING A BRASS CAP IN A CONCRETE MON. MARKED BY A STANDARD DISK & METAL POST.



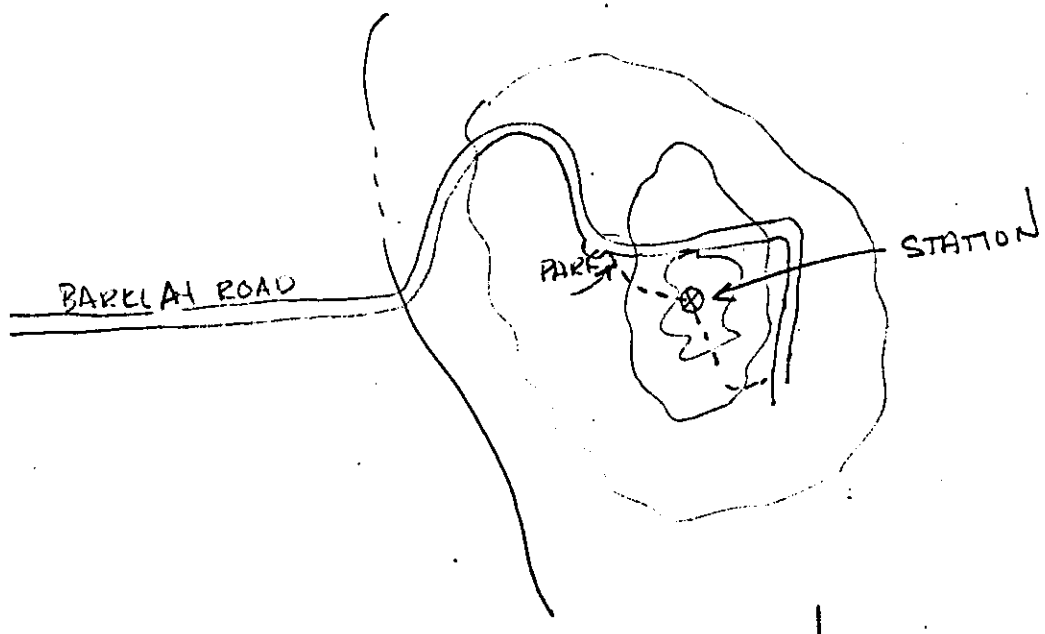
SKETCH

COUNTRY DESCHUTTS		TYPE OF MARK SUR CAP		STATION AH-1 H&U 3 155 10E	
LOCALITY SISTERS, COE		STAMPING ON MARK AH-1		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		ELEVATION 3372.17 VA (FT)	
(NORTHING)(EASTING) 232, 125.67 (M)		(EASTING)(NORTHING) 1732, 365.09 (M)		DATUM 1927/US 1947ADJ	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW-57-77-C-6006	
				DATE NOV 1976	
				ORDER 3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)	(GRID)		(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO: NORTH SIDE OF MCKINNEY BUTTE NEAR THE CENTER OF SEC. 3, TISS RIDE. PROCEED EAST ON BARKLEY ROAD JUST SOUTH OF SISTERS AIRPORT CROSSING INDIAN FORD CREEK @ RISE OF BUTTE. GO UP BUTTE TO WHERE MAIN ROAD TURNS EAST- PARK IN PARKING LOT & PROCEED UP THE BUTTE ON OLD ROAD .2 MILES TO STATION.

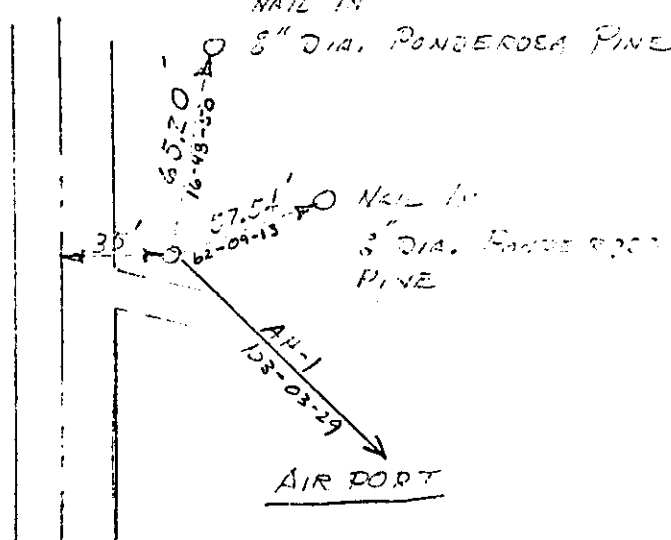


SKETCH

COUNTRY DESLHUTFS		TYPE OF MARK BRASS CAP		STATION AIRPORT	
LOCALITY SISTERS, ORC		STAMPING ON MARK AIRPORT 4V L 15 S 10 E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		DATUM 1929/1947 ADJUSTMENT	
(NORTHING)(EASTING) 233,355.97	(FT) (M)	(EASTING)(NORTHING) 1727,060.59	(FT) (M)	GRID AND ZONE OCG NORTH	
(NORTHING)(EASTING)	(FT) (M)	(EASTING)(NORTHING)	(FT) (M)	GRID AND ZONE	
TO OBTAIN				TO THE GEODETIC AZIMUTH	
TO OBTAIN				TO THE GEODETIC AZIMUTH	
DATE Nov. 1976		ORDER 3RD			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)		GRID DISTANCE (METERS) (FEET)	

DRIVE TO DESCRIPTION: EAST TWO BLOCKS FROM SISTERS, U.S. POST OFFICE
 THENCE NORTH ON N. LOCUST 1 MILE FROM POST OFFICE TO
 SISTERS AIRPORT, MON. IS IN THE NORTH WEST CORNER
 OF AIRPORT. ELEVATION
 35' 1" ...



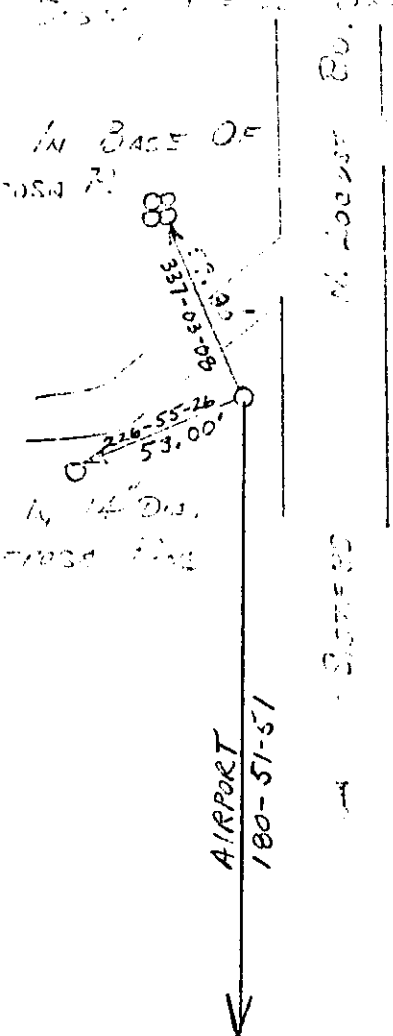
COUNTRY DESCHUTES		TYPE OF MARK SUB- CAP		STATION HEA-7		AFU 33 14S 10E	
LOCALITY SISTERS, OCE		STAMPING ON MARK HEA-7		AGENCY (CAST IN MARKS)		ELEVATION (FT) (M) 3153.438	
LATITUDE		LONGITUDE		DATUM		1929 w/1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) (M) 234,886.42		(EASTING)(NORTHING) (FT) (M) 1727083.68		GRID AND ZONE QCS NORTH		ESTABLISHED BY (AGENCY) DACW 57-TT-C-0006	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE		DATE Nov. 1976	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH			
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

NOTE TO DESCRIPTION: NORTH 0.3 MILE FROM SISTERS AIRPORT STATION IS 31 FT LEFT OF Q. OF CAMP POLK BY A STANDARD BENCH MARK.

NAIL IN BASE OF FOUR PANDORA P.

NAIL IN 14" DIA. PANDORA P.



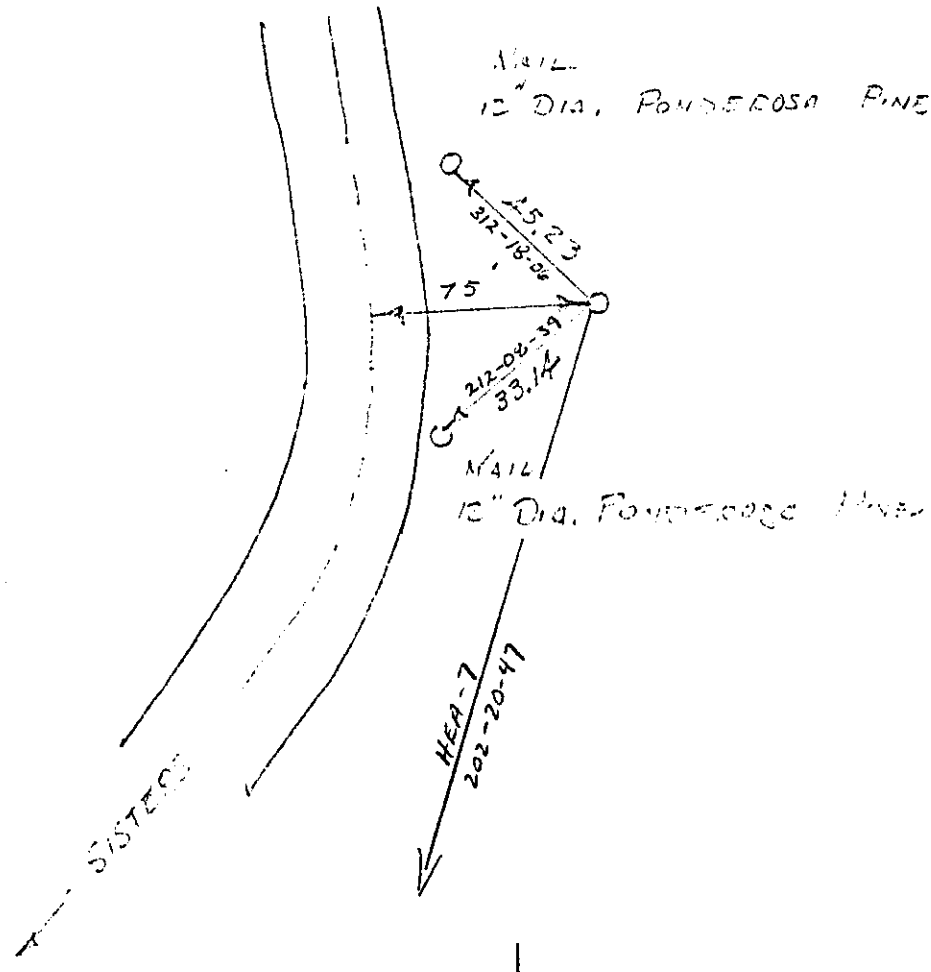
SKETCH

COUNTRY DESCHOTES		TYPE OF MARK SUR - CAP		STATION HEA-6 H&V 332 145 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK HEA-6		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		ELEVATION (FT) (M) 3148.655	
(NORTHING)(EASTING) (FT) (M) 236, 826.09		(EASTING)(NORTHING) (FT) (M) 1727, 881.03		DATUM 1929 / 1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE OCS NORTH	
				ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
				DATE Nov. 1976	
				ORDER 3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODEIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODEIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODEIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO LOCATION : NORTH ON CAMP POLK RD. 0.7 MILES
 ON THE NORTH END OF A CURVE LT. STATION IS 75' ±
 RIGHT OF & OF ROAD.



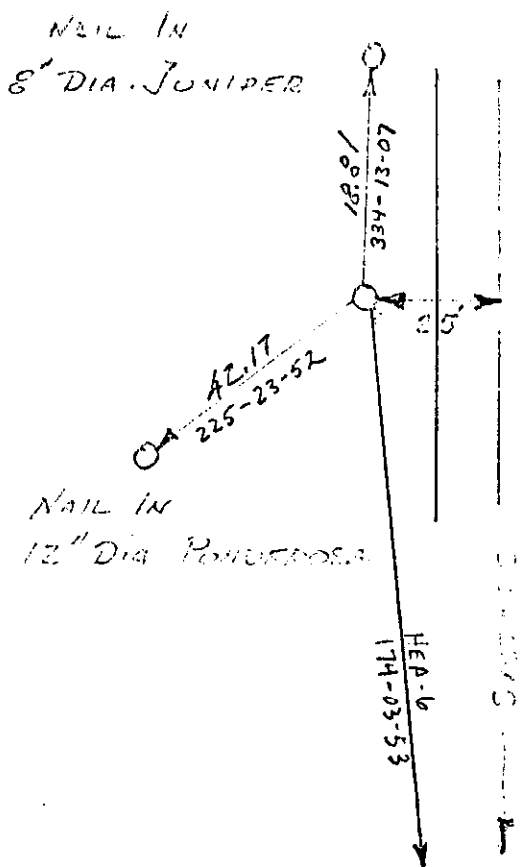
SKETCH

COUNTRY DESCRIBUTES		TYPE OF MARK SHE CAP		STATION HE-5 HEU 333 145 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK HE-5		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
230,376.73 (M)		1,727,719.82 (M)		OCS NORTH	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
				DATE	
				Nov. 1976	
				ELEVATION (FT) (M)	
				3149.626 (M)	
				ESTABLISHED BY (AGENCY)	
				OACW 57-77-C-0006	
				ORDER	
				3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO LOCATION: NORTH ON CAMP POLE RD, 1.0 MILE FROM SISTERS AIRPORT. STATION IS 25'± LEFT OF C OF ROAD AND MARKED BY A SANDWOOD SIGN & METAL POST.



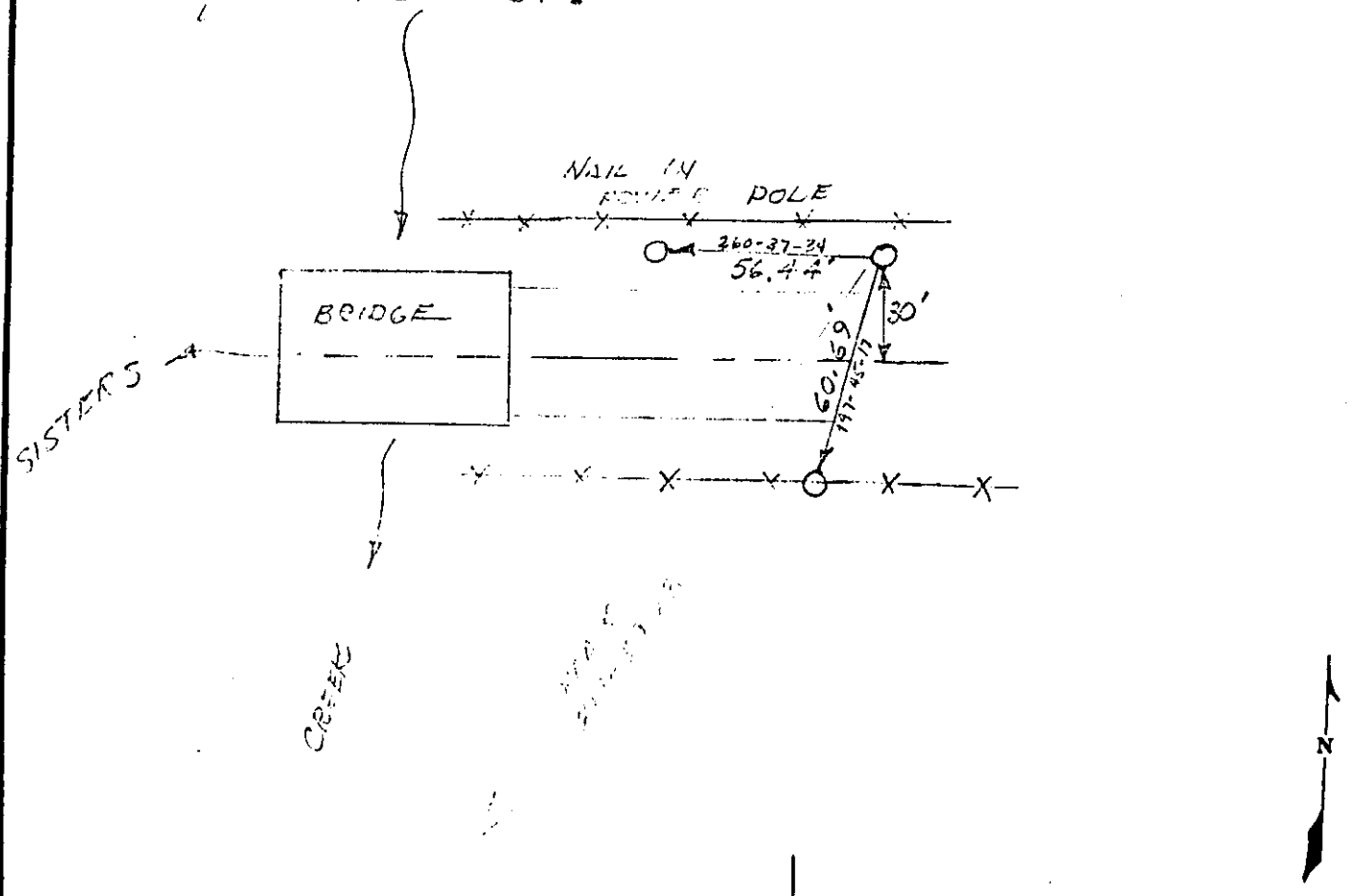
SKETCH

COUNTRY DEACUTES		TYPE OF MARK BRASS CAP		STATION HEA-4 HEU 28 14S 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK HEA-4 NY 33 14S 10 E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		ELEVATION 3164.386 (FT) (M)	
(NORTHING)(EASTING) 240,175.45 (M)		(EASTING)(NORTHING) 1,728,978.88 (M)		DATUM 1929 W/1947 ADJUST, ESTABLISHED BY (AGENCY) DALW 57-77-C-0006	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE 62S NORTH DATE Nov. 1976 ORDER 3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO LOCATION : NORTH ON CAMP POLY RD. 1.5 MILES (500' PAST SMALL CREEK) FROM SISTERS AIR FORT. STATION IS 30' LEFT OF E AND MARKED BY STANDARD SIGN & METAL POST.



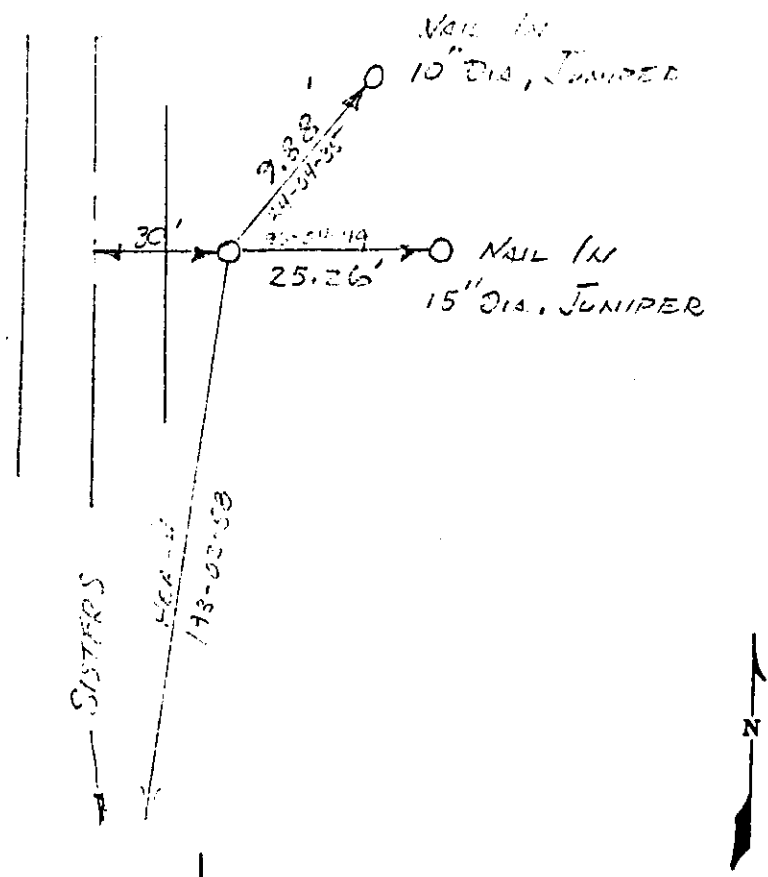
SKETCH

COUNTRY DESCRUOTES		TYPE OF MARK SUR. CAP		STATION HEA-3		HEV 27 14510E	
LOCALITY SISTERS, ORE		STAMPING ON MARK HEA-3		AGENCY (CAST IN MARKS)		ELEVATION (FT) 3227.182 (M)	
LATITUDE		LONGITUDE		DATUM		1929 w/1947 ADJUST.	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE OCS NORTH		ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE		DATE Nov. 1976	
						ORDER 3 PD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)		GRID DISTANCE (METERS) (FEET)	

DRIVE TO LOCATION: NORTH OF SISTERS APPROXIMATELY 2.5 MILES ON CAROL FOLK RD, TURN LEFT ON INDIAN FORD RD. 0.4 MILES. STATION IS 30' ± RIGHT OF CENTER TOP OF A HILL. MARKED BY CONCRETE CORNER, METAL POST.



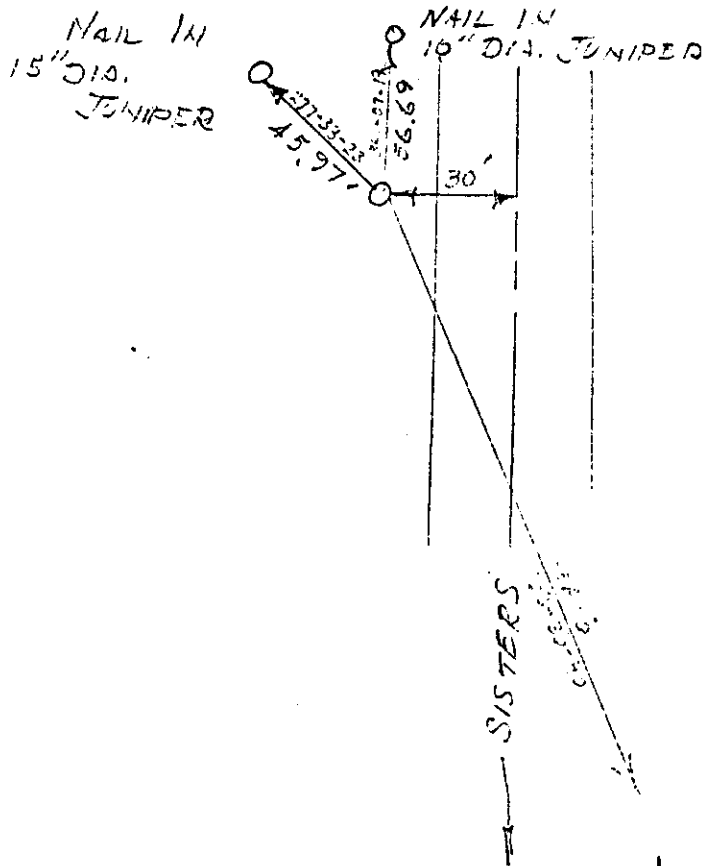
SKETCH

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION HEA-2 HEV 21 14S 10E	
LOCALITY SISTERS, ORE		STAMPING ON MARK HEA-2 HV 21 14S 10E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		DATUM 1929 W/1947 ADJUST.	
ELEVATION (FT) 3224.535		ESTABLISHED BY (AGENCY) DACW-57-77-C-0006		DATE NOV. 1976	
(NORTHING)(EASTING) (FT) 246,589.49 (M)	(EASTING)(NORTHING) (FT) 1,729,322.09 (M)	GRID AND ZONE OLC NORTH		ORDER 3RD	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		DATE NOV. 1976	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO LOCATION: NORTH OF SISTERS APPROXIMATELY 3.5 MILES ON CAMP FORD RD, TURN NORTH ON INDIAN FORD RD. 1.0 MILES, STATION IS 30' E LEFT OF Q MARKED BY A STANDARD SIGN & METAL POST.



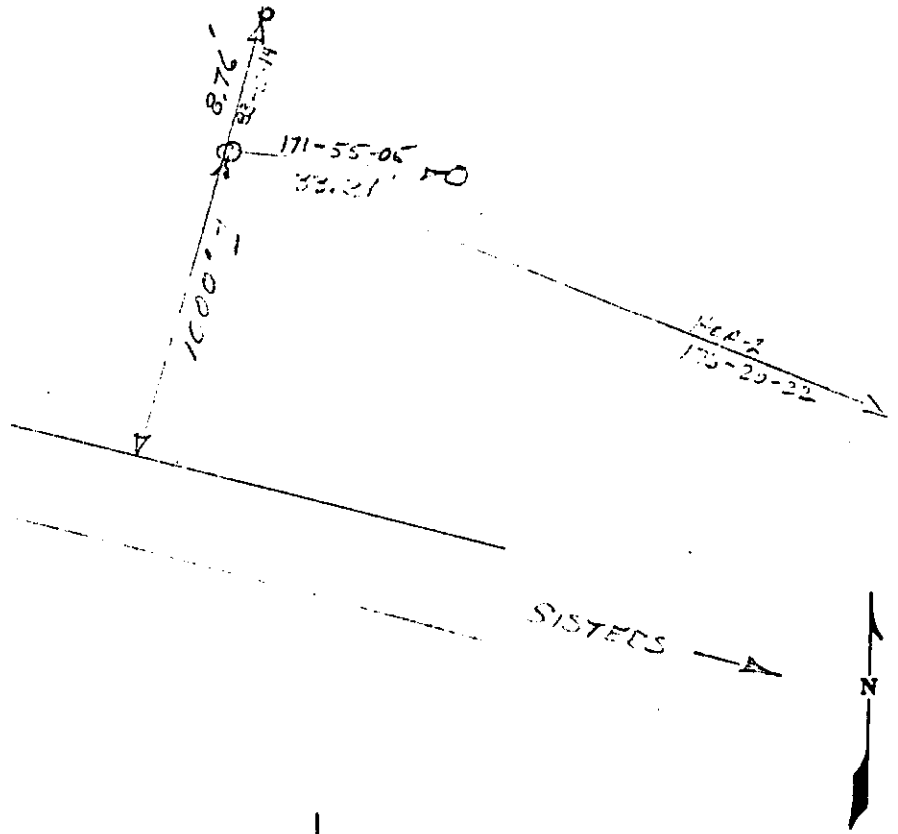
SKETCH

COUNTRY DESCHUTES		TYPE OF MARK SUR-CAP		STATION HEA-1 H&V 21, 14SIDE	
LOCALITY SISTERS, ORE		STAMPING ON MARK		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
248,555.40		1729,196.32		OCS NORTH	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
ELEVATION VA (FT) (M)				ESTABLISHED BY (AGENCY)	
3260.62				DALW-57-77-C-0006	
DATE				ORDER	
Nov. 1976				380	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETTIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETTIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETTIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO LOCATION: NORTH OF SISTERS APPROXIMATELY 2.5 MILES ON CAMP POLK RD. THENSE NORTH ON INDIAN FORD RD. 1.3 MILES STATION IS 1000 ± NORTH OF RD. MARKED BY A STANDARD SIGN; METAL POST, ON THE BROW OF A HILL FACING WEST.

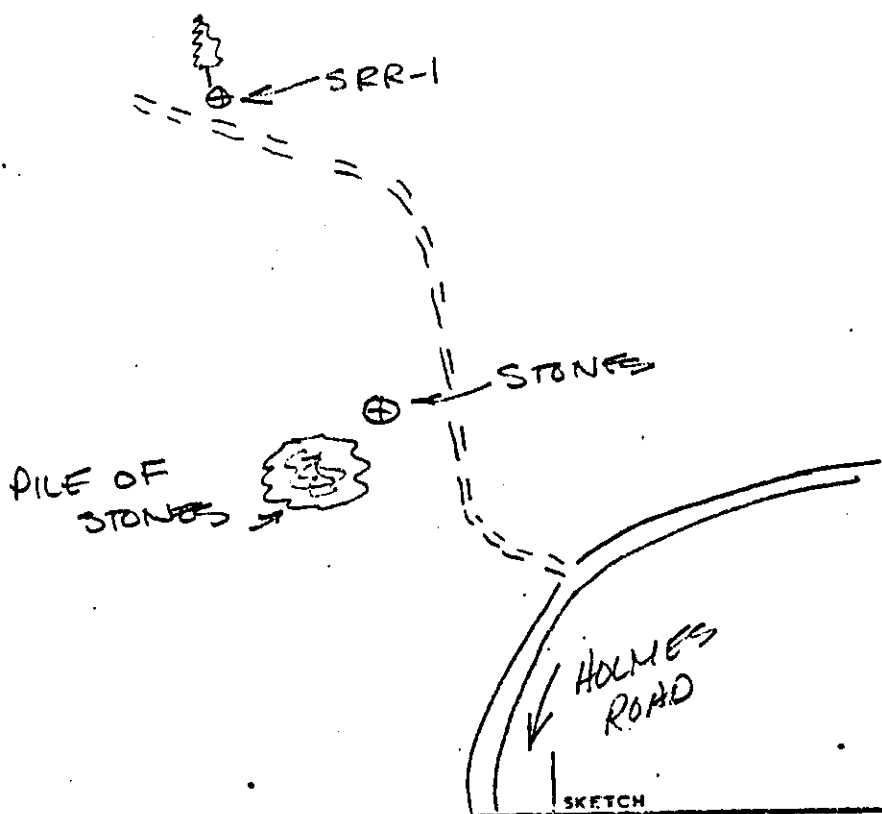


SKETCH

DESIGNATION DESCHUTES		TYPE OF MARK SUR CAP		STATION SRR-1 #EU 35 13S11E	
LOCALITY SISTERS OR		STAMPING ON MARK SRR-1		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM 1929/W 1947 ADJ	
(NORTHING)(EASTING) (FT) 268,788.88		(EASTING)(NORTHING) (FT) 1,768,465.19		GRID AND ZONE OC'S NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW-57-77-C-0006	
				DATE NOV 76	
				ORDER 3RD	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETTIC AZIMUTH		
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETTIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETTIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

APPROXIMATELY 700 FT NW OF STATION
 STONES ON THE NE SIDE OF A DIRT
 ROAD 3' SOUTH OF A JUNIPER TREE IN THE
 W 1/2 OF SEC 35 T 12S R 1E

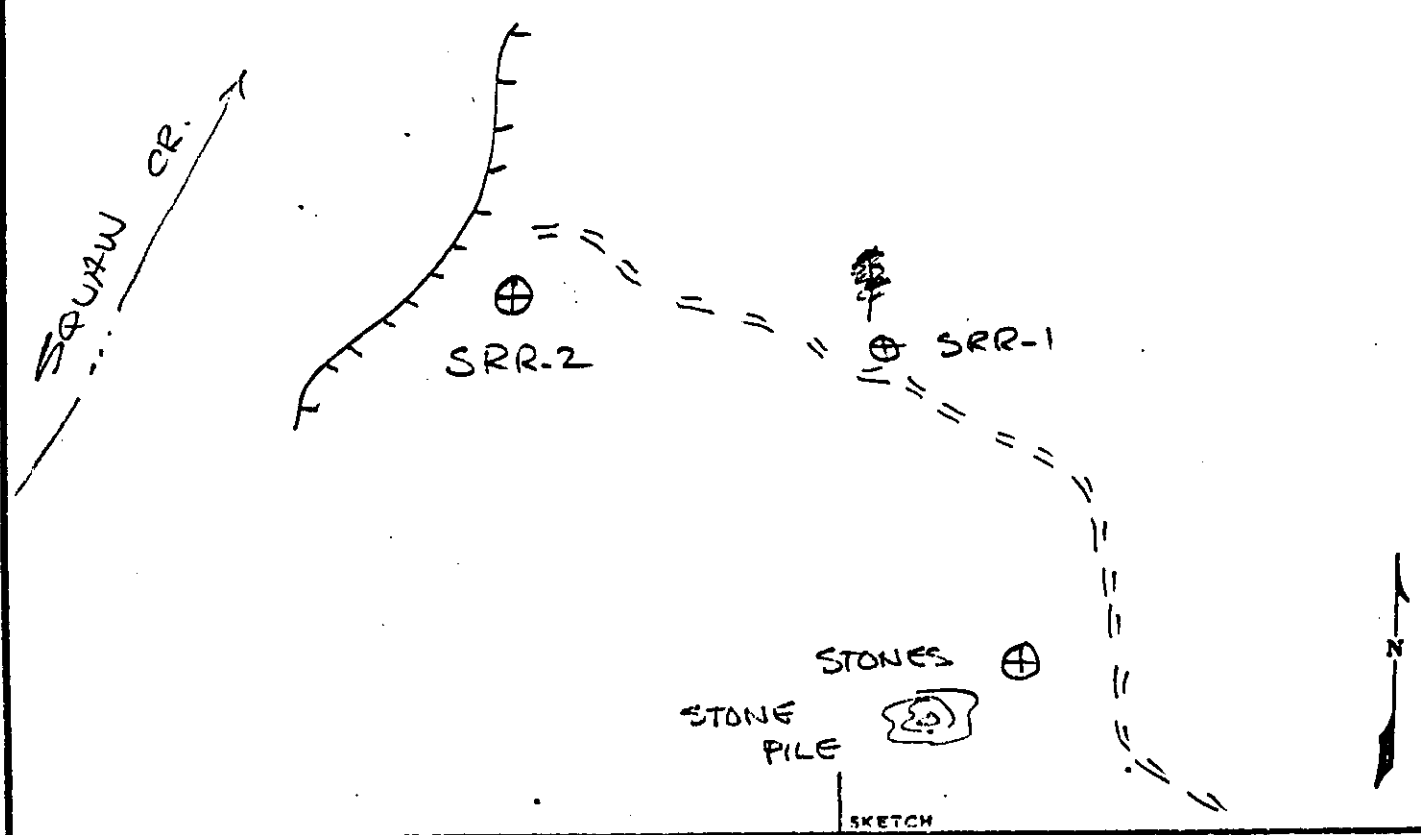


COUNTRY DESCHUTES		TYPE OF MARK SUR CAP		STATION SRR-2 #EV 35 13S 11E	
LOCALITY SISTERS OR.		STAMPING ON MARK SRR-2		AGENCY (CAST IN MARKS) -	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		GRID AND ZONE	
269,182.52		1,767,777.91		OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE	
				DATE	
				NOV 76	
				ORDER	
				3RD	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

STATION IS APPROX. 1700 NW OF STATION STONES ON EDGE OF RIMROCK IN THE SW NW 1/4 SEC 35 T13S R11E. SUR CAP IS CEMENTED INTO FLAT ROCK -



50

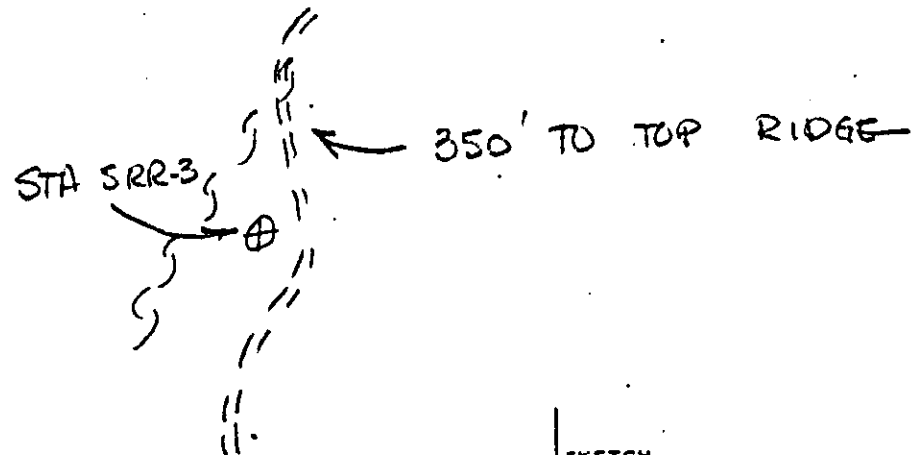
COUNTRY DESCHUITS		TYPE OF MARK SUR CAP		STATION SRR-3 HEV 32 13S 11E	
LOCALITY SISTERS		STAMPING ON MARK SRR-3		AGENCY (CAST IN MARKS)	
LATITUDE 268,085.60		LONGITUDE 1,755,639.35		ELEVATION 2950.19 VA (FT)	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		DATUM 1929/5 1947 ADJ	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE BCS NORTH	
				ESTABLISHED BY (AGENCY) DACW 57-17-C-0006	
				DATE NOV 76	
				ORDER 3RD	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO

FROM THE JUNCTION OF THE CAMP POLK ROAD & THE MAIN ROAD LEADING TO HENKLE BUTTE IN SEC 27 T14S R10E PROCEED ENE ALONG HENKLE BUTTE ROAD 2.46 MILES TO A JUNCTION - PROCEED LEFT DOWN FREMONT CANYON ROAD 4.0 MILES TO A JUNCTION AT THE ENTRANCE TO A LARGE OPEN AREA IN SEC. 5 T14S R11E - PROCEED ON LEFT FORK 1.5 MILES TO A POINT JUST BEFORE THE TOP OF A RIDGE. STATION IS A SUR CAP CEMENTED IN A FLAT ROCK 50 FT WEST & ACROSS ROAD



51

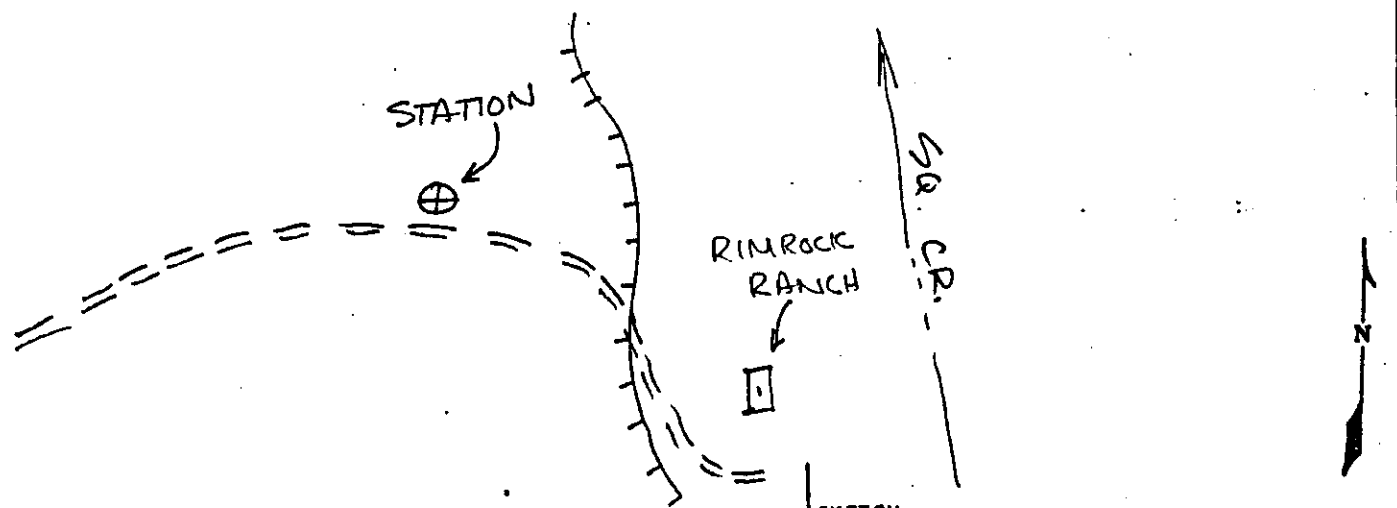
COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION RIMROCK H&U 314511E	
LOCALITY SISTERS OR.		STAMPING ON MARK RIMROCK		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		ELEVATION (FT) 2858.10	
(NORTHING)(EASTING) (FT)		(EASTING)(NORTHING) (FT)		DATUM 1929/W 1947 A01	
264,961.28		1,762,001.10		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0066	
				DATE NOV 1976	
				ORDER 3RD.	

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)

DRIVE TO:

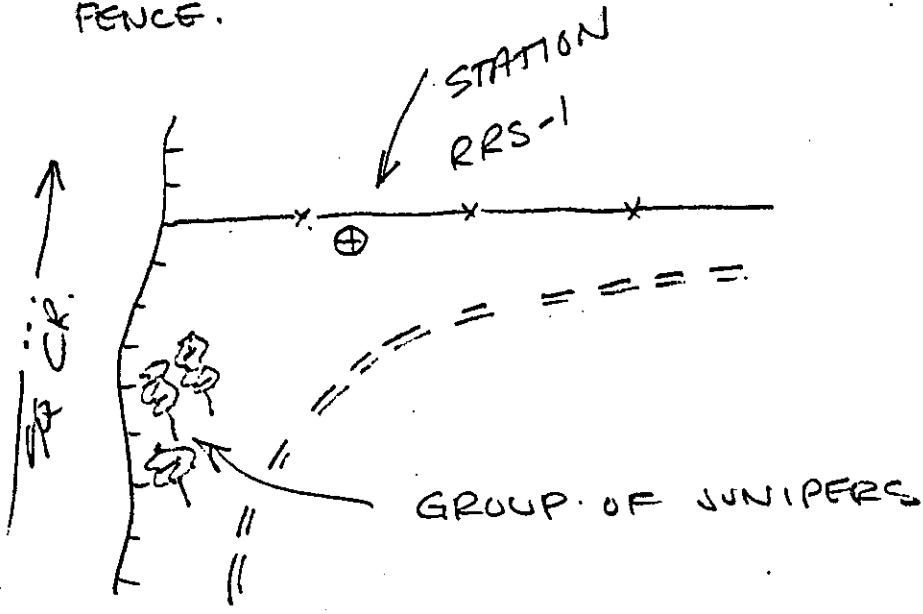
FROM THE JUNCTION OF CAMP POCK ROAD & THE MAIN ROAD LEADING TO HENKLE BUTTE IN SEC 27, T14S R10E - PROCEED ENE ALONG HENKLE BUTTE ROAD 2.46 MILES TO A JUNCTION - PROCEED LEFT DOWN FREMONT CANYON ROAD 4.0 MILES TO A JUNCTION AT THE ENTRANCE TO A LARGE OPEN AREA IN SEC 5 T14S R11E PROCEED ON RIGHT FORK 1.5 MILES TO A POINT ON ON THE RIMROCK 200 FT BEFORE BREAKING OVER SIDE & DOWN TO RIMROCK RANCH HOUSE ON SQUAW CREEK. STATION IS 30' NORTH OF ROAD IN LARGE OPEN AREA.



COUNTRY DESCHUTES		TYPE OF MARK SUR CAP		STATION RRS-1 H&V 3 14511E	
LOCALITY SISTERS OR.		STAMPING ON MARK RRS-1		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) 264,826.52		(EASTING)(NORTHING) (FT) 1,764,582.19		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		DATE NOV 1976	
				ELEVATION (FT) 3003.03 VA #4	
				DATUM 1929/W 1947 ADJ.	
				ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
				ORDER 320	

TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	(FEET)	GRID DISTANCE (METERS)

3/4 OF A MILE SOUTH OF ^{STATION} STONES ON DIRT ROAD PROCEED DUE WEST ON AN OLD DIRT ROAD WHICH PARALLELS A POWER LINE 0.6 MILES TO EDGE OF RIMROCK STATION IS A SUR CAP IN FLAT ROCK 150 NORTH OF DIRT ROAD 5' SOUTH OF A EAST-WEST FENCE.



SKETCH

COUNTRY DESCHUTES		TYPE OF MARK SUR CAP		STATION RRS-2 HEV 2 14511E	
LOCALITY SISTERS OR		STAMPING ON MARK RRS-2		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) 264,803.33		(EASTING)(NORTHING) (FT) 1,767,421.37		GRID AND ZONE OCS NORTH	
(NORTHING)(EASTING) (M)		(EASTING)(NORTHING) (M)		GRID AND ZONE	
				ELEVATION (FT) 3029.32VA	
				DATUM 1929/W 1947ADJ.	
				ESTABLISHED BY (AGENCY) DALW57-77-0008	
				DATE NOV 76	
				ORDER 3RD.	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION		BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
	(GEODETIC)	(GRID)		(METERS)	(FEET)	(METERS)	(FEET)

3/4 OF A MILE SOUTH OF STATION STONES ON DIRT ROAD PROCEED WEST ON AN OLD DIRT ROAD WHICH PARALLELS A POWER LINE 2000 FT. STATION IS 10 FT SOUTH OF ROAD - A SUR CAP IN CONCRETE.

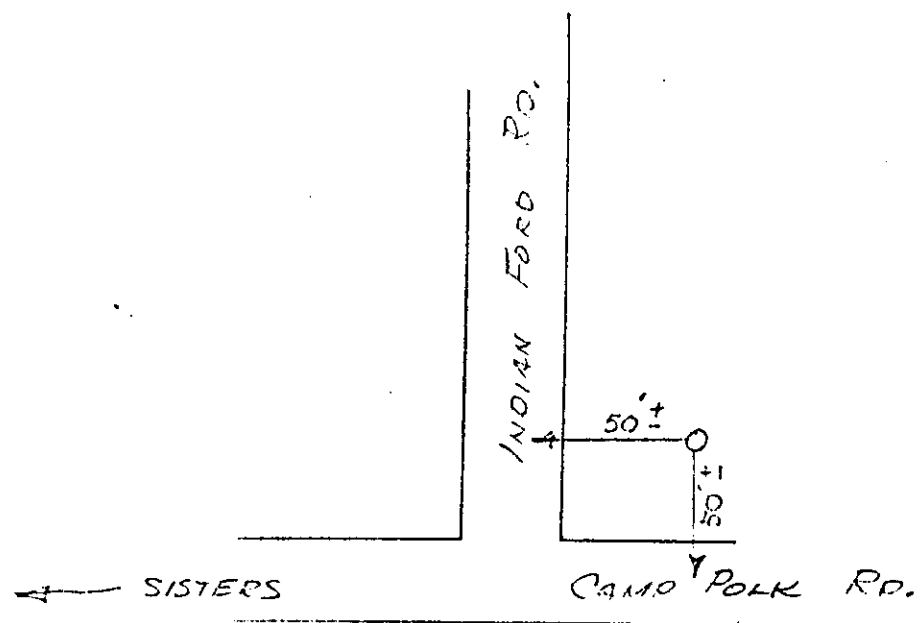


SKETCH

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION FORD BM	
LOCALITY SISTERS, ORE		STAMPING ON MARK FORD Y 27 145 10 E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION (FT) (M)		ESTABLISHED BY (AGENCY)		DATE	
3175.718		DACW-57-77-C-0006		Nov. 1976	
1929 W/1947 ADJUST		ORDER		3 RD	

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

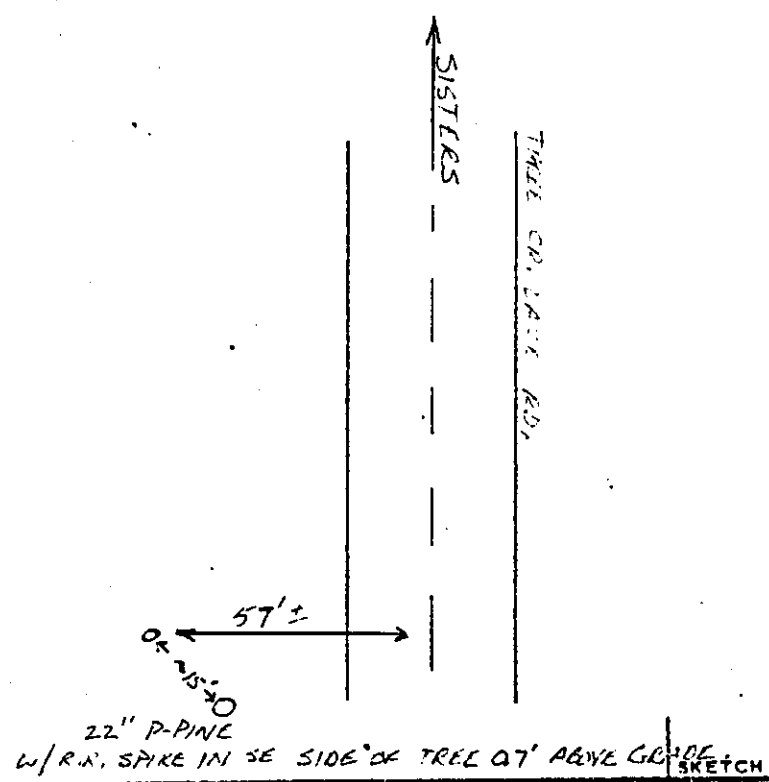
DRIVE TO LOCATION: NORTH ON CAMP POLK RD. 2.1 MILES TO THE INTERSECTION OF INDIAN FORD RD. STATION IS IN THE N.E. CORNER OF THE INTERSECTION.



SKETCH

LOCALITY DESCHUTES		TYPE OF MARK BRASS CAP		STATION THREE CREEK B.M.	
LOCALITY SISTERS, OREGON		STAMPING ON MARK V29-155-10E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		ELEVATION (FT) 3540.513 (M)	
NORTHING(EASTING) — (FT) (M)		EASTING(NORTHING) — (FT) (M)		DATUM 1929^N/1947 ADJUST	
NORTHING(EASTING) — (FT) (M)		EASTING(NORTHING) — (FT) (M)		GRID AND ZONE —	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODEIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODEIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODEIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)	

DRIVE TO LOCATION: 4.7 MILES SOUTH ALONG THREE CREEK LAKE ROAD FROM INTERSECTION OF SAID ROAD AND U.S. HWY 30 IN SISTERS, OREGON. (JUST BEFORE THREE CREEK RD. BEGINS GRADE BREAK TO SQUAW BLUFF) THENCE 57'± RIGHT OF ϕ , MARKED BY STANDARD SURVEY WITNESS POST SIGN.

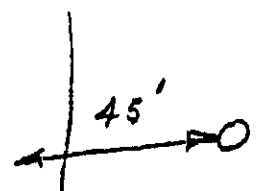


5611

COUNTRY		TYPE OF MARK		STATION	
DESCRIBES		BRASS CAP		FREMONT BM	
LOCALITY		STAMPING ON MARK		AGENCY (CAST IN MARKS)	
SISTERS, ORE		FREMONT V B 145 11 E		USCE	
LATITUDE		LONGITUDE		DATUM	
				1929 w/1947 ADJUST	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
-		-		-	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT		AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		GEOD. DISTANCE (METERS) (FEET)	

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: SOUTHEAST ON HWY. #20 TWO BLOCKS FROM SISTERS U.S. POST OFFICE THENSE NORTH ON LOCUST ST. (CAMP POLK RD.) 3.1 MILES THENSE NORTH ON FREMONT CANYON RD. 5.2 MILES TO STATION, STATION IS 45'± RIGHT OF R ROAD IN A SMALL CLEARING, MARKED BY A METAL POST AND STANDARD SIGN.



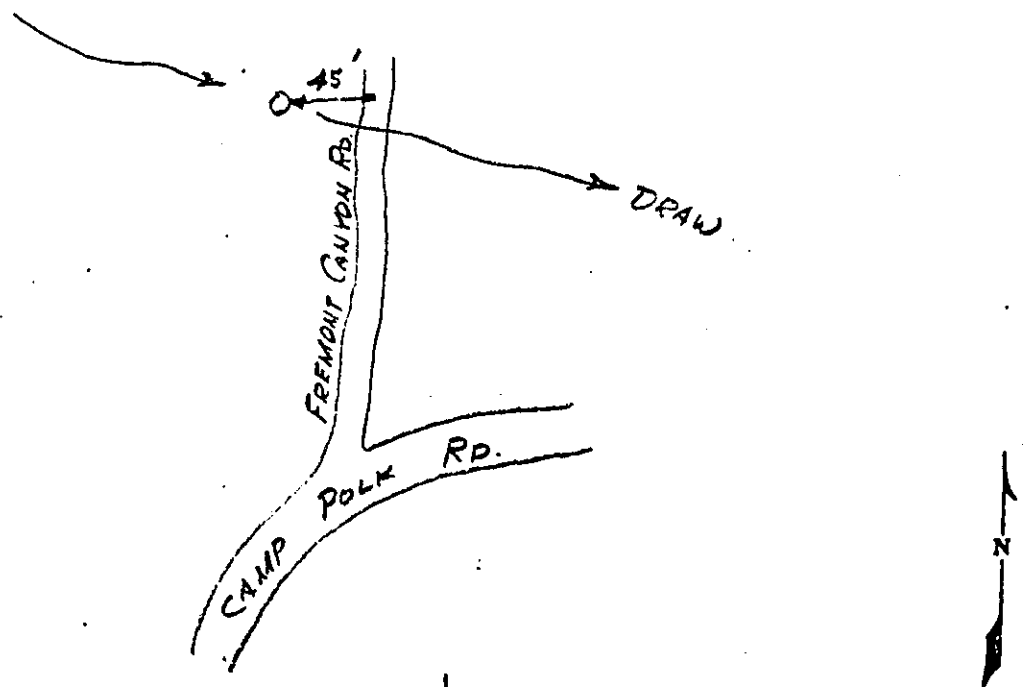
SKETCH

IDENTIFY DESCRIBES	TYPE OF MARK BRASS CAP	STATION STEPHENS BM	
LOCALITY SISTERS, ORE	STAMPING ON MARK STEPHENS V 23 145 10E	AGENCY (CAST IN MARKS) USCE	ELEVATION (FT) (M) 3150.92
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUST
(NORTHING)(EASTING) (FT) (M) —	(EASTING)(NORTHING) (FT) (M) —	GRID AND ZONE —	ESTABLISHED BY (AGENCY) DAW 57-77-6-0006
(NORTHING)(EASTING) (FT) (M) —	(EASTING)(NORTHING) (FT) (M) —	GRID AND ZONE —	DATE Nov. 1976

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)		GRID DISTANCE (METERS) (FEET)	

DRIVE TO DESCRIPTION 1 Southeast On HWY. #20 Two Blocks From Sisters U.S Post Office Thense North On Locust St. (CAMP POLK RD.) 3.1 Miles Thense North On Fremont Canyon Road 1.5 Miles To Station. Station Is 45'± Left Of R Road, In The Bottom Of A Draw. Marked By A Standard Sign & Metal Post.



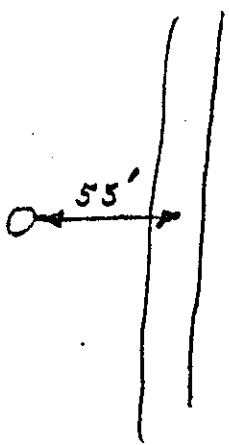
SKETCH

58

COUNTRY DESCRIBUTE'S		TYPE OF MARK BRASS CAP		STATION HENKLE BM	
LOCALITY SISTERS, ORE		STAMPING ON MARK HENKLE V 24 145 10E		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION (FT) (M) 3046.60		ESTABLISHED BY (AGENCY) DACW-57-77-C-0006		DATE Nov. 1976	
DATE Nov. 1976		ORDER 3RD			

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION : SOUTHEAST ON HWY. #20 TWO BLOCKS FROM SISTERS U.S. POST OFFICE THENSE NORTH ON LOCUST ST. (CAMP POLK RD.) 3.1 MILES THENSE NORTH ON FREMONT CANYON RD. 2.9 MILES TO STATION. STATION IS 55' ± LEFT OF R OF ROAD IN A SMALL CLEARING. MARKED BY A METAL POST AND STANDARD SIGN.

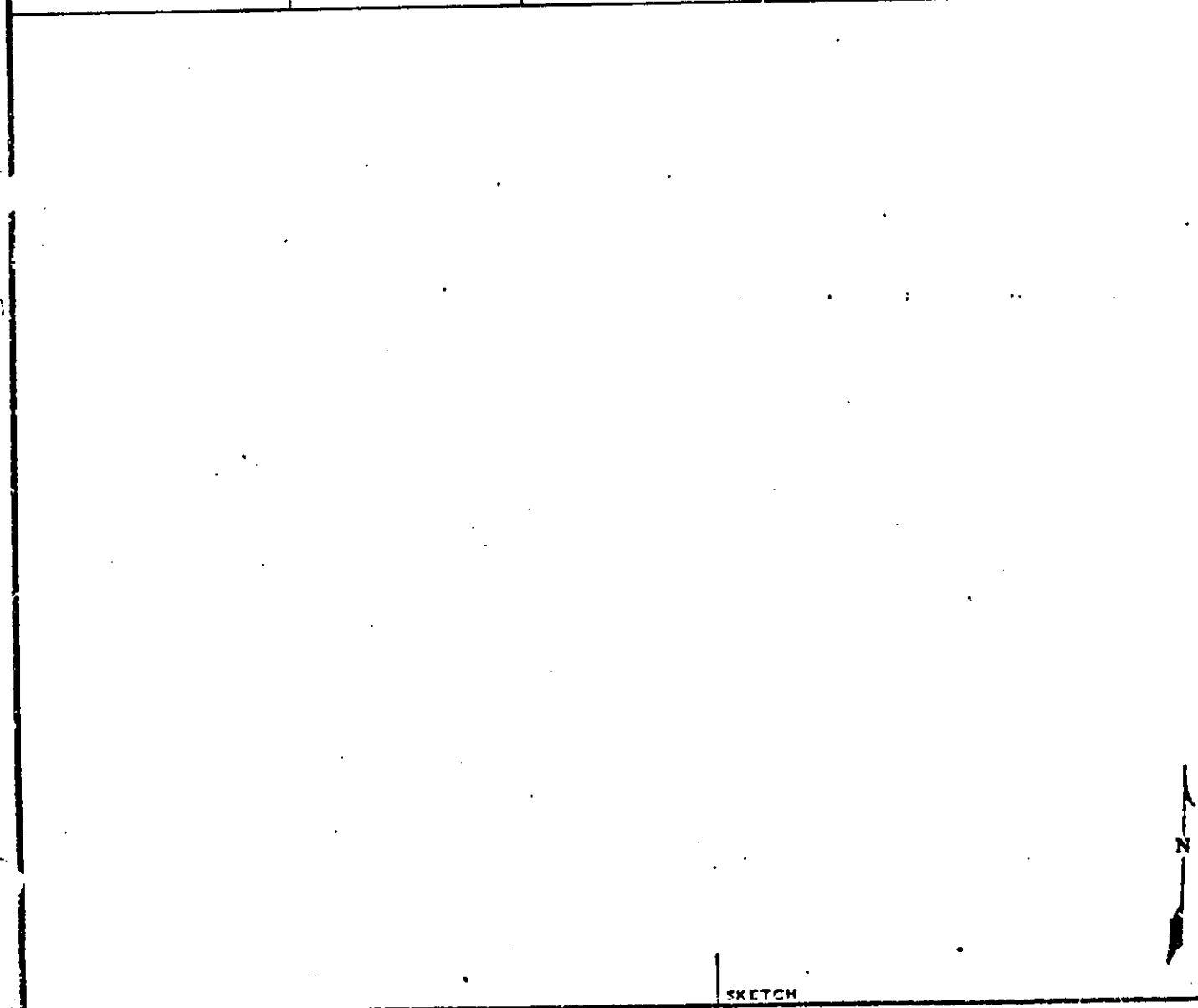


SKETCH

59

COUNTRY DESCHUTES		TYPE OF MARK BRASS CAP		STATION POLK BM U 35 14 S 10 E	
LOCALITY SISTERS, ORE		STAMPING ON MARK POLK		AGENCY (CAST IN MARKS) USCE	
LATITUDE		LONGITUDE		DATUM	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
ELEVATION (FT) (M) 3012.612		ESTABLISHED BY (AGENCY) DACW-57-71-C-0006		DATE Nov. 1976	
DATE		ORDER		3 RD	

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE		GRID DISTANCE	
			(METERS)	(FEET)	(METERS)	(FEET)



SKETCH

PROPERTY DESCRIBES		TYPE OF MARK BRASS CAP		STATION CANAL BM V 21 155 10E	
LOCALITY SISTERS OR.		STAMPING ON MARK CANAL BM		AGENCY (CAST IN MARKS) USACE	
LATITUDE		LONGITUDE		ELEVATION (FT) 3366.56	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		DATUM 1929/W 1947 AD	
(NORTHING)(EASTING) (FT) (M)		(EASTING)(NORTHING) (FT) (M)		ESTABLISHED BY (AGENCY) DACW 57-77-C-0086	
				DATE NOV 1976	
				ORDER 3ED	

TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)		BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)		GRID DISTANCE (METERS) (FEET)	

2.65 MILES SOUTH ON THREE CREEK LAKE ROAD FROM SISTERS A BRASS CAP IN THE SW CORNER OF A CONCRETE BRIDGE OVER A CANAL.

SKETCH