

U. S. GEOLOGICAL SURVEY

TRANSIT

TRAVERSE FIELD NOTES

9-928

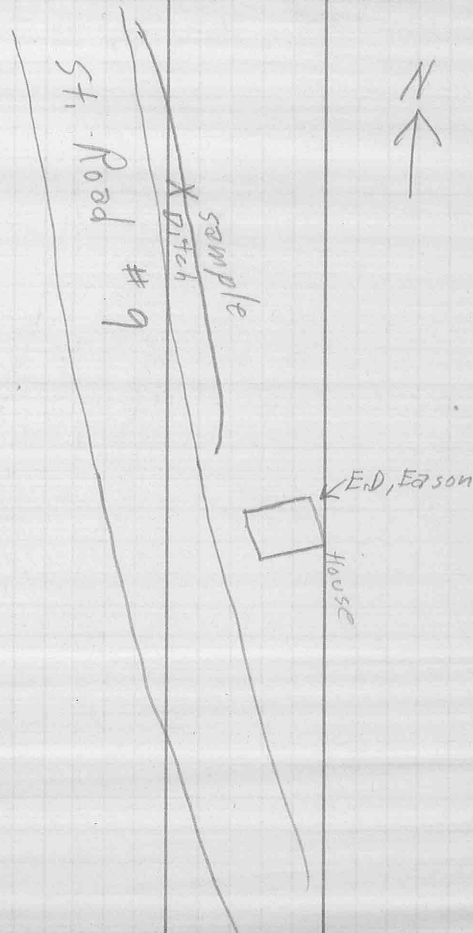
Date _____, 19 Found Iron Sand 1950J.W. DowdenSample No. 51

Magnetic bearing station _____ to station _____ 2

Tape No. _____ Sample No. 52

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "
Sec. 25	T. 4S	R. 17W	Cor. 5½	NE ¼ NW ¼
<p>Iron stained sand from old stripping operation on North side of road ½ mi. E from Malvern City Limits, Southwest of Malvern Br. & Tile Pits ½ mi. About 3½ st. exposure. Exposure is on right-of-way of Ark. Nat. Gas Corp. pipeline.</p>				

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		
Sec. 35	T. 4S	R. 17W	Cor. SE ¼ SE ¼
<p>About 1¼ mi. SSE of Malvern City. Limits on State Road #9. Exposure in ditch on East side of road. 150 yds long & about 5 ft. (average) of exposure. Sand is iron stained, but lower 3 ft. is lighter in color.</p>			



Date _____, 19____ Line from _____

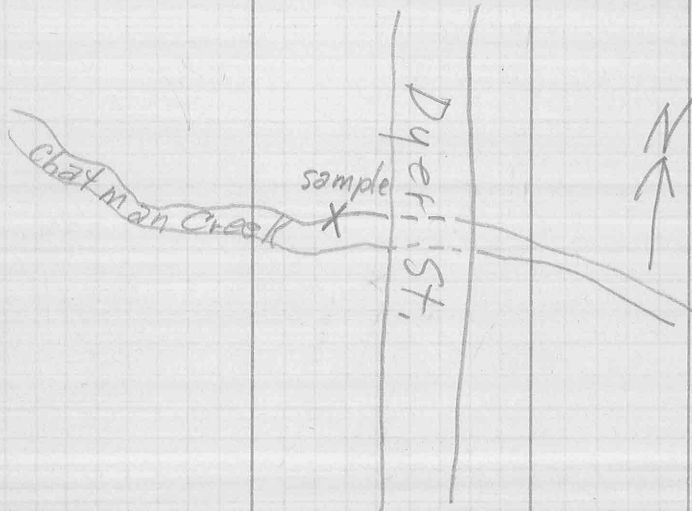
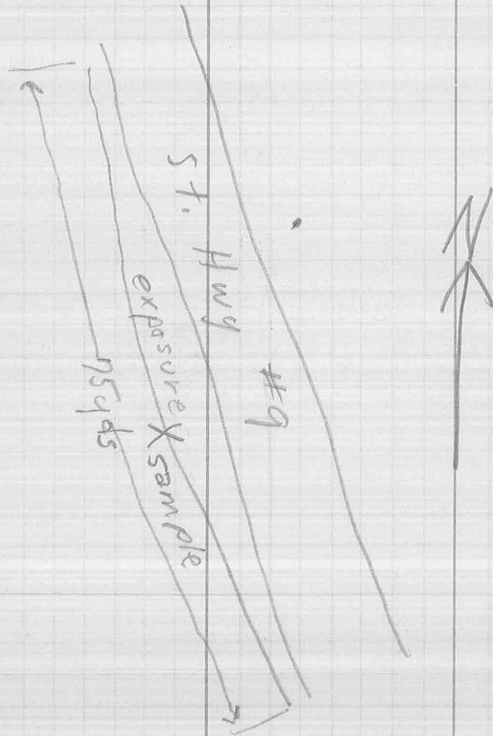
Magnetic bearing station _____ to station _____ 3

Sample No. 53 to _____

Tape No. _____ Sample No. 54

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "
Sec. 7	T. 55	R. 16W	Cor. SWSW ¹ / ₄ NW	
3.8 miles S E of Malvern City Limits on state Hwy #9, on west side of road. Exposure is about 75 yds long.				
2 ft. of silt overburden, aver. of 10 ft. of sand with very thin clay layers. Sand becomes lighter in color near bottom of exposure & picks up some gravel.				

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		
Sec. 27	T. 45	R. 17W	
Cor. E ¹ / ₂ SE ¹ / ₄ NE ¹ / ₄ of Sec.			
On Dyer St. .1 mi. Due South of Malvern City Limits, in North bank of Chatman Creek on west side of street.			
2 ft. exposure of dark gray sand. Extends several hundred yds downstream.			



Sample No. 55 to _____

Tape No. _____ Sample No. 56

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "
Sec. 3	T. 55	R. 17W	NW	SW SE
<p>2½ miles due South of Malvern City Limits. Exposures on both sides of Road at W.H. Aldridge's house. Exposure is about 3 ft. thick & extends about 50 yds along the road.</p>				

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		
Sec. 10	T. 55	R. 17W	Cent. W½ SE NE
<p>About 3½ miles due South of Malvern City Limits on east side of road. 2½ ft exposure & extends about 250 yds. along road.</p> <p>Dark gray sand - top 1½ ft. Iron-stained - Lower foot.</p>			

Date _____, 19____ Line from _____

Sample No. 57 to _____

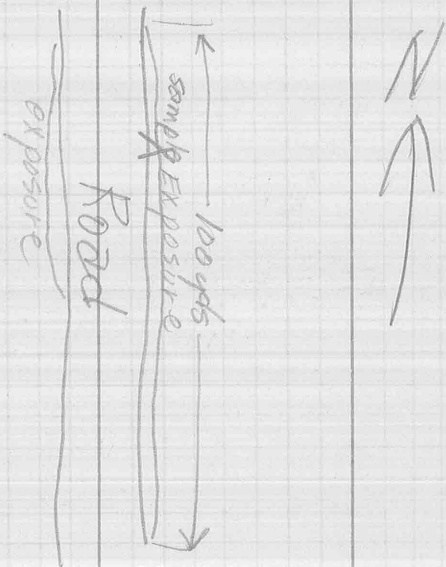
Magnetic bearing station _____ to station _____ 5

Tape No. Sample No. 58

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
-------------	-----------------	-----------	-----------	------

Sec. 3 T. 5S R. 17W NEc SESE SE

2 ³/₄ miles due south of Malvern City
Limits on Dyer St. 2ft. exposure on west side of road & 3 ¹/₂ ft. exposure on east side of road. Exposure on east side extends for about 10 yds.

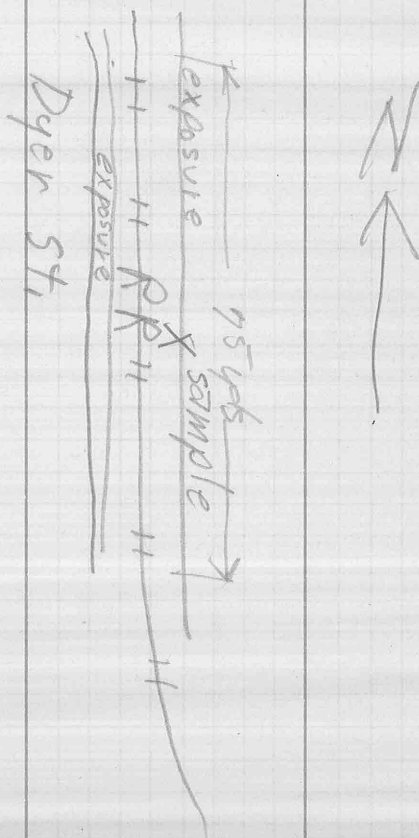


DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
------------------	---------	-----------------	--------------------------------

Sec. 2 T. 5S R. 17W
NWc SW NW SW

2.4 miles due south of Malvern in
RR cut on east side of Dyer St.
exposure on both sides of cut about 75 yds long & ten ft thick, at thickest point. 2ft. of gravel overburden.

Red sand. very iron-stained

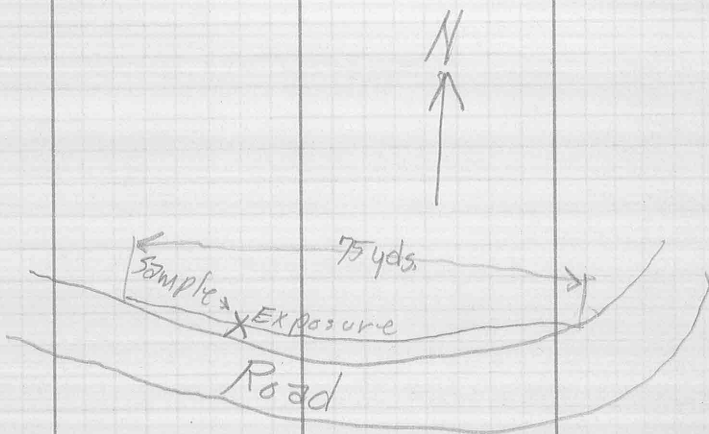


Sample No. 59 to _____

STATION No.	STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
			° ' "	° ' "	° ' "

Sec. 17 T. 55 R. 17W
Center of Sec.

4.8 mi. from Malvern on St. Hwy #9 South.
0.8 mi east of Hwy #9, Exposure is about
75 yds long on north side of road. 5 ft. of
red sand with 1 ft. of gravel overburden. Sand
contains some clay in top 2 ft. & is underlain
by clay.



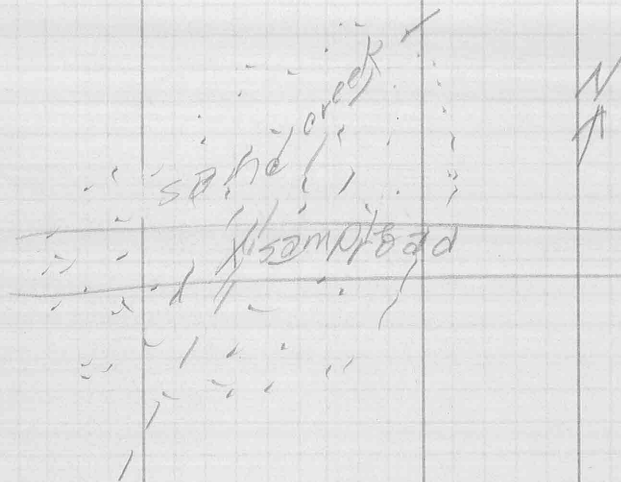
Tape No. Sample No. 60

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		

Sec. 35 T. 55 R. 17W
Cen NW 1/4

0.9 mi. east of Rock Ridge Road
7 mi south of Malvern

sample was taken in creek bed where
creek crosses road. Road is filled with
sand. Sand is about 1 1/2' deep.



Date _____, 19____ Line from _____

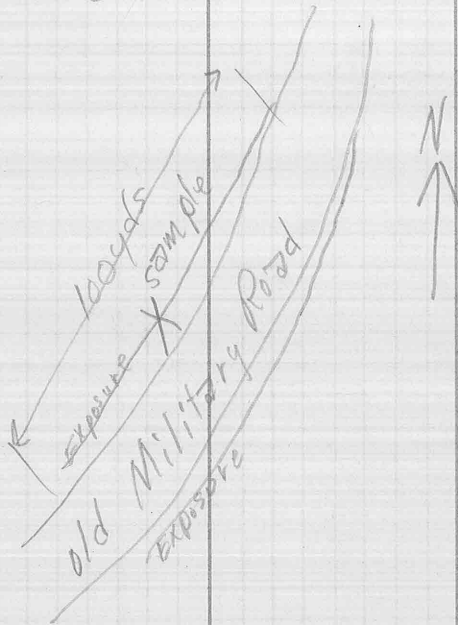
Sample No. 61

to _____

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "

Sec. 2 T. 4S R. 17W
Cen NW SW

$2\frac{1}{2}$ mi. north of Malvern on the old military Road
Exposure is about 100 yds long on both sides of road. Sand is about 5 ft. thick underlain by gravel.



Magnetic bearing station _____ to station _____

7

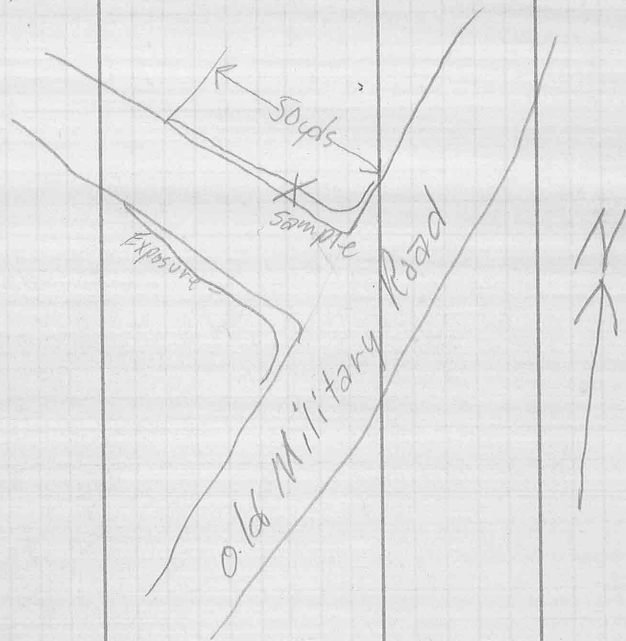
Tape No. _____ Sample No. 62

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		

Sec. 2 T. 4S R. 17W
NEc NW $\frac{1}{4}$

3 mi. north of Malvern on west side of old Military Road.

2 ft. of gray sand on both sides of road entering old Military Road from west side. Exposure is about 50 yds long.



Sample No. 63 to _____

Tape No. Sample No. 64

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		0 1 "	0 1 "	0 1 "
	Sec. 28	T. 55	R. 17W	NW $\frac{1}{4}$
<p>Sample was taken on road where sand is over 1 $\frac{1}{2}$ ft. deep, 7 mi. east of Hickson Loop Road, 7 mi. south of Malvern. Sand extends for .8 mi. in road.</p>				

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
0 1 "	0 1 "		
	Sec. 11 T. 45 R. 17W		
	Con E $\frac{1}{2}$ NE NE		
<p>2 mi. north of Malvern. Exposure on west side of road 150 yds long & average 3 ft. thick. On east side of road 150 yds long & average 5 ft. thick. At sample point exposure was 7 ft. high.</p>			

Date _____, 19____ Line from _____

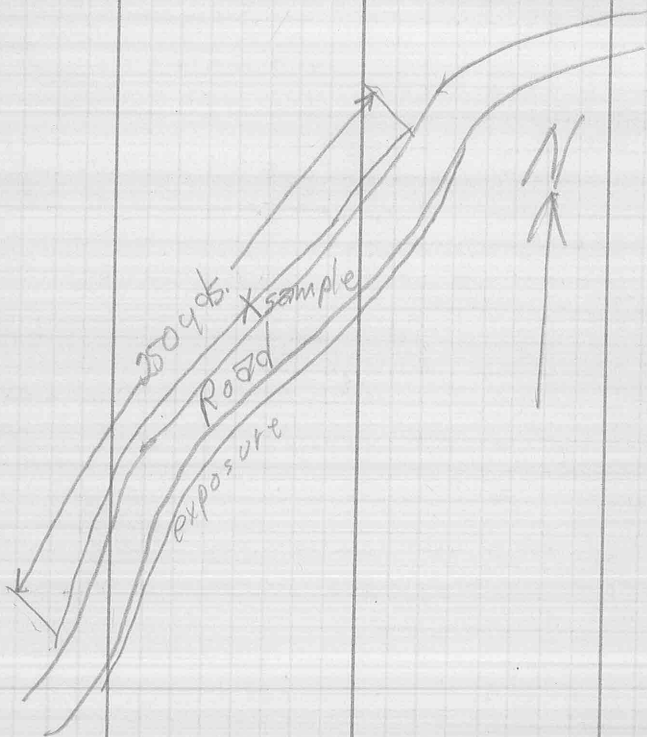
Sample No. 65

to _____

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"

Sec. 1 T. 4S R. 17W
 Cen SW NW SE

2 1/2 mi. north of Malvern. Exposure in road cut 5ft. high on both sides & about 250 yds long.



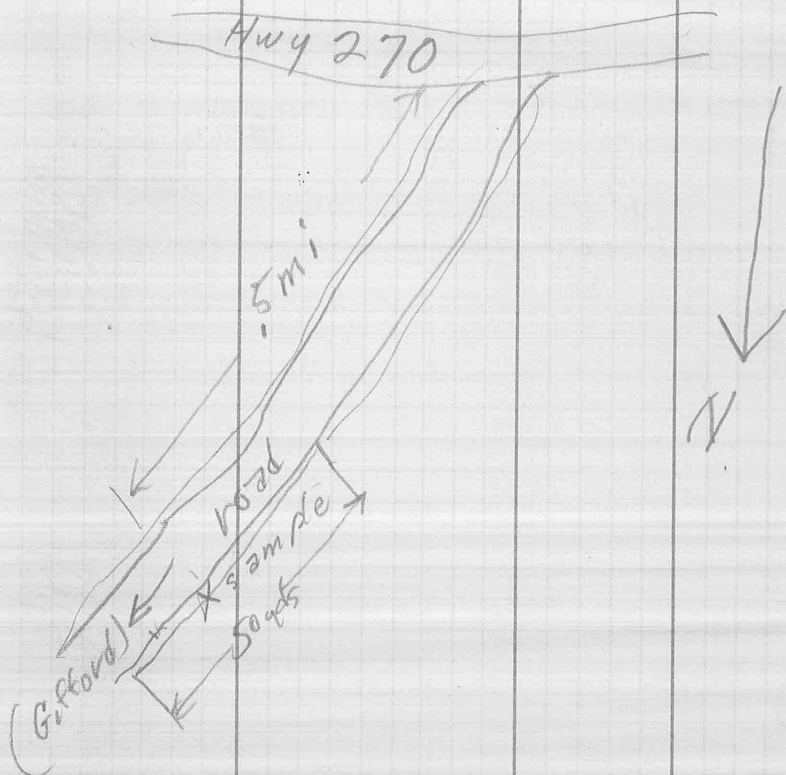
Magnetic bearing station _____ to station _____ 9

Tape No. _____ Sample No. 66

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE		
				°	'

Sec. 20 T. 4S R. 16W Cen NW 1/4

1/2 mi. north of Hwy 270. Sample taken in road cut where 4ft. of sand is exposed for about 50 yds. top 2ft. is dark grey & bottom 2ft. is red. This same sand is exposed all along road from Gifford to Hwy 270, about 1.5 mi.



Sample No. 67 to _____

Tape No. Sample No. 68

STATION No. STADIA DISTANCE VERNIER A VERNIER B MEAN

Sec. 20 T. 4S R 16W Cen NE SE

On Hwy 270 1.5 mi. east of Hwy 67.

Outcrop is ten ft. high with 6" gray sand on top & 9ft. of red sand.

N
↑~~Hwy 270~~

*sample

this sand shows up in roadcuts for 4 miles east of Hwy 67 on Hwy 270.

DEFLECTION ANGLE

AZIMUTH

DISTANCE (FEET)

TEMPERATURE AND VERTICAL ANGLE

Sec. 33 T. 35 R 15W

Cen of WL

7.3 mi. due North of Poyen

3ft. bank of sand on both sides of road. About 1 1/2 mi SE of Traskwood.

N
↑

sample

road

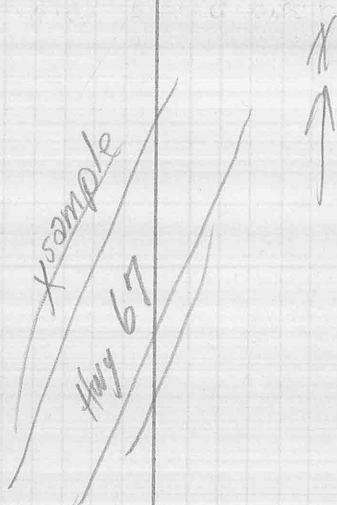
Date _____, 19____ Line from _____

Sample No. 69 to _____

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"

2.7 mi. north of Saline-Hot Spring county line on Hwy 67.

Outcrop is 15 ft high. Lt. grey sand with 4 ft. of red sand & gravel on top



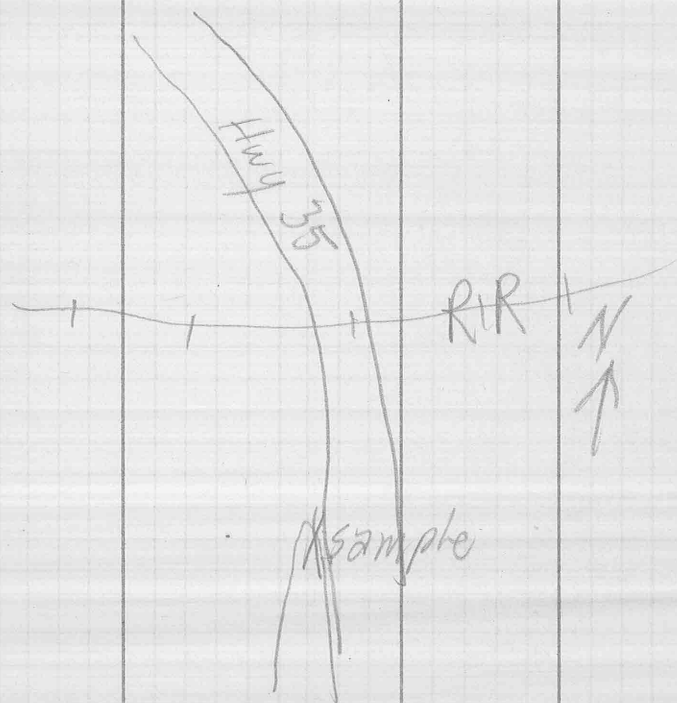
Magnetic bearing station _____ to station _____ 11

Tape No. _____ Sample No. 70

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE

Sec. 13 T. 25 R. 15 W
Cen NW 1/4

ON West side of Hwy 35, 50 yds south of last RR crossing as you leave Benton going toward Sheridan. Same sand appears at intervals for over a mile south on Hwy.



Sample No. 71 to _____

Tape No. _____ Sample No. 72

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		o	'	"	o	'	"	o	'	"
		Sec. 13 T. 2S R. 15W								
		Sec SWSWSE								
exposure is on unimproved road 50 ft. E of Hwy 35 to the west, at small cemetery .9 mi. SE of Benton.										
3 ft. of Lt grey sand over 1 ft. red sand.										

DEFLECTION ANGLE	AZIMUTH			DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	o	'	"		
	Sec. 31 T. 3S R. 16W				
	Cen NE NE				
about 4 mi. NE of Malvern, & 2 mi. west of Hwy 67. The outcrop is in a RR cut on the C.R.I. & P. R.R. beginning on the East side of the road. The cut is about 150 yds long & 15 ft high at highest point. At this point the sample was taken. The top 3 ft is Lt brown sand followed by about 1 1/2 ft. of clay. The bottom 10 ft. is Lt. grey sand with red streaks. The grey sand seems to be dipping to the west.					

Sample No. 73

to _____

Tape No. _____

Sample No. 74

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"
		Sec. 16	T. 4S	R. 16W						
		Con $S\frac{1}{2}$ NW $\frac{1}{4}$								
		.7 mi east of Gifford, 100 yds north of Mo. Pac. R.R. tracks, Outcrop on north side of road extends for 75 yds, 50 yds west of school, gray sand 3 ft. thick.								

DEFLECTION ANGLE	AZIMUTH			DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	°	'	"		
	Sec. 10	T. 4S	R. 16W	Con SW SW	
	1.8 mi east of Gifford where road crosses Mo. Pac. tracks, outcrop is in RR cut, west of road & about 100 yds long cut is about 9 ft high.				

Sample No 75

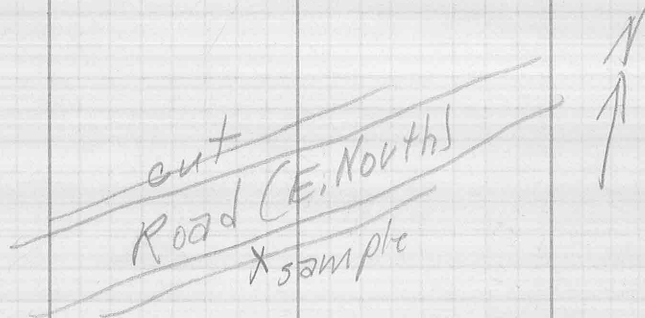
to _____

Tape No. _____ Sample No. 76

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "

Sec. 12 T. 25 R. 15W NEc. NW NW

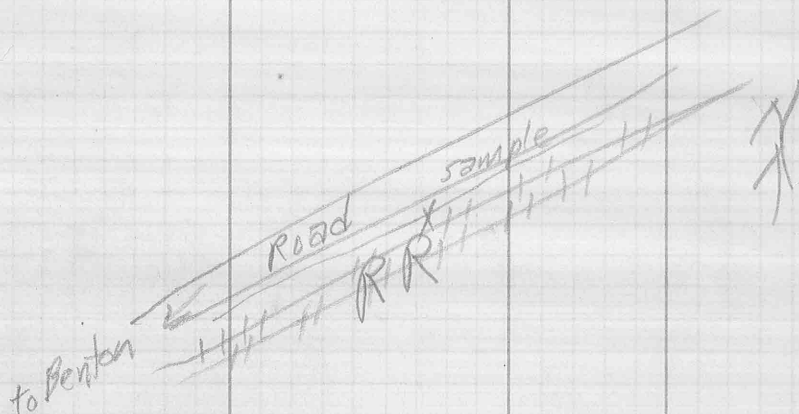
1 mile east of Benton on E. North St,
outcrop in cut in road 7 ft high & about
50 yds long. Red sand.



DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		

Sec. 12 T. 25 R. 15W Cen S 1/2 SW NE

Sample taken 1 mi. east of Benton on
road that parallels Mo. Pac. tracks. This
sand is exposed in ditch for at least
1 mi. Exposure is 2 ft. high.



Sample No. 77

Tape No. Sample No. 78

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"
		Sec. 36 T. 15 R. 15 W.								
		Con $W\frac{1}{2}$ NWNW								
		1/2 mi. north of junction with Hwy 70 on Congo Road. outcrop in road cut about 6 ft. high & 50 yds long.								

DEFLECTION ANGLE	AZIMUTH			DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	°	'	"		
	Sec. 32 T. 15 R. 16 W.				
	Con $S\frac{1}{2}$ NW $\frac{1}{4}$				
	1.5 mi. east of Hwy 70, outcrop in road cut 3 ft. high, 15 yds long.				

Sample No. 79

to _____

Tape No. _____ Sample No. 80

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		o	'	"	o	'	"	o	'	"
Sec. 18 T. 15 R. 13W Cen WL										
Outcrop extends several hundred yds up & down stream on Crooked Creek & averages 14 ft. high. Sample was taken on bank of creek on east side of road from Alexander to Hwy 70 about .1 mi north of Alexander. This location is on Saline-Pulaski County Line.										

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE		
				o	'
Sec. 18 T. 15 R. 13W Cen SE 1/4					
.3 mi NE of Alexander on west side of Alexander Road. 3 ft. sand underlain by gravel.					

Date _____, 19____ Line from _____

Sample No. 81 to _____

Magnetic bearing station _____ to station _____ 17

Tape No. _____ Sample No. 82

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"
		Sec. 16 T. 15 R. 13W. Cen. NW SWSW SW 1/4								
about 1 mi. south of Alexander Road, on east side of road. Exposure about 4 ft. high & about 50 yds long.										

DEFLECTION ANGLE	AZIMUTH			DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	°	'	"		
	Cen. of Sec. 15 T. 15 R. 13W				
1.5 mi. south of Mabelvale, outcrop on both sides of road about 5 ft. thick. Red sand with streaks of clay. About 1/2 ft. gravel overburden.					

Date _____, 19____ Line from _____

Sample No. 83 to _____

Magnetic bearing station _____ to station _____ 18

Tape No. Sample No 84

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"
Sec. 10 T 15 R 13W Cen E/L NESE										
.8 mi. south of Mabelvale, outcrop on both sides of road. Lt. brown sand 25 ft. thick underlain by red sand 35 ft. (exposed). Dipping south.										

DEFLECTION ANGLE	AZIMUTH			DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	°	'	"		
SW of Sec. 11 T 15 R 13W					
1/2 mi. south of Mabelvale, outcrop on both sides of road, 45 ft. high & about 30 yds. long.					

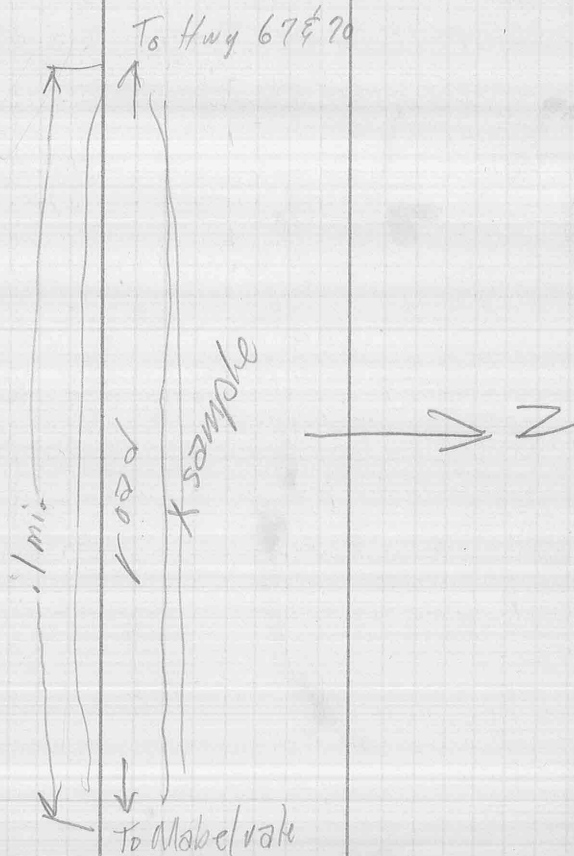
Sample No. 85 to _____

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "

Sec. 4 T1S R13W

SWc SESE SE

.7 mi. due west of Mabelvale, outcrops 3 ft. high on both sides of road for about .1 mi.

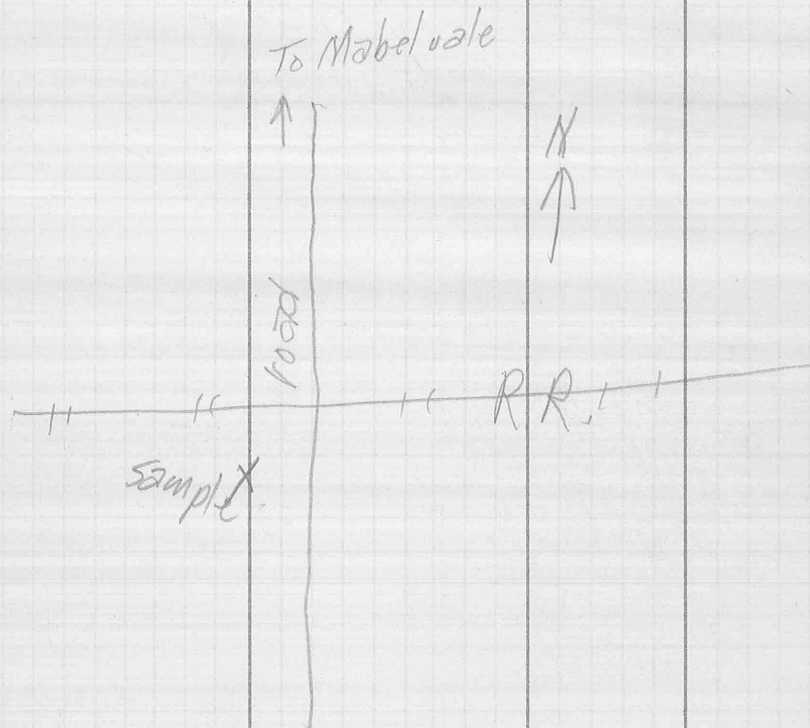


Tape No. _____ Sample No. 86

DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		

Sec. 22 T1S R13W Cen SW $\frac{1}{4}$

.6 mi. south of Mabelvale where road crosses C.R. & P. R.R. tracks. Exposure in road cut about 75 yds long. 2 ft. of silty sand with 4 ft. of clay exposed underneath.



Sample No. 87

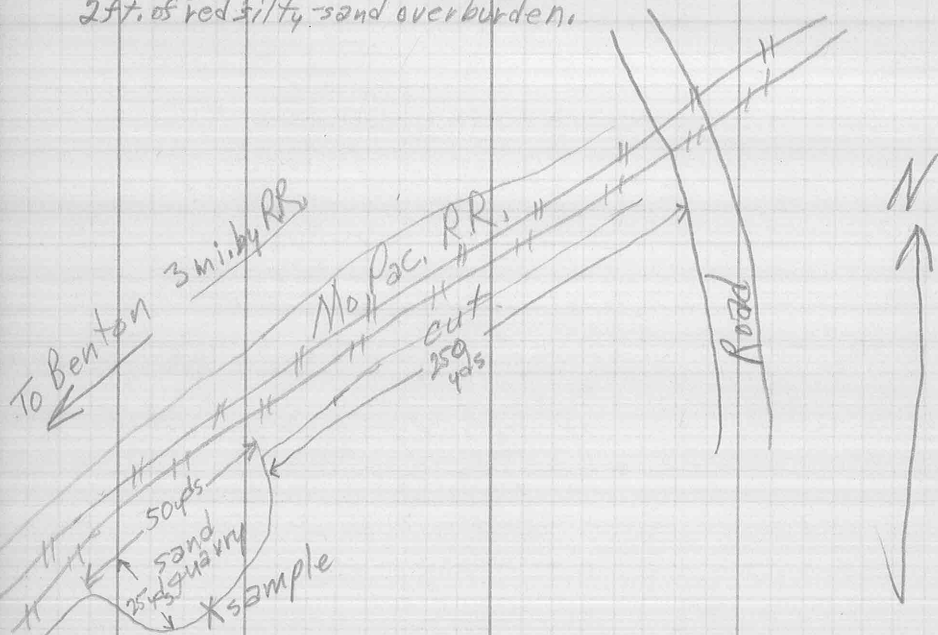
to _____

Tape No. Sample No 88

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "

Sec 5 T.25 R14W
Cen W/LSW SW NW

Sand quarry on southside of MoPac RR.
250 yds west of road crossing. Quarry is
50 yds long & 25 yds deep. Sand exposure is 12 ft
high at point of sampling (highest point). Sand
is Lt. grey & Lt. brown with iron-stained streaks,
2 ft. of red silty sand overburden.



DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	° ' "		

C SW NW

Sec. 16 55 15W

1/4 mi. S. Lenham Switch Hwy 113.

Roadside ditch E. side.

700' E. CR + PRR.

1' Sandy loam soil
2 1/2' Lt. brn. sand w/ streaks gr. clay.

Date _____, 19____ Line from _____

Magnetic bearing station _____ to station _____ 22

Sample No. 91

to _____

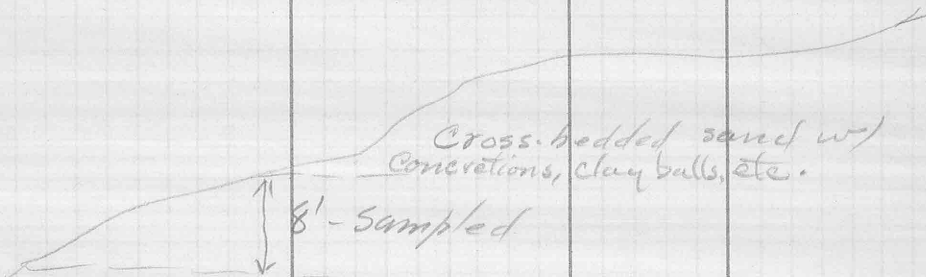
Tape No. Sample No. 92

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN	DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
		C S N $1\frac{1}{4}^{\circ}$ 5' 10" 15' W "		0' 1" "		S 10° S' W " 3' 6' S' 15' W		
		.9 mi. N. of Lucian				1.6 mi. So. of Thiel		
		1 $\frac{1}{2}$ sandy soil				3 $\frac{1}{2}$ Clay + gravel		
		3 $\frac{1}{2}$ Gray sand-sampled				5 $\frac{1}{2}$ Sand, red w/streaks of gray clay.		

No. 93

to _____

Tape No. Sample #94

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN			DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
		°	'	"	°	'	"	°	'	"				
	C	Sec. 25	65	15 W.							C° S'E"SE			
	.2	mi. E. Leola.									Sec. 31	68	14 W	
	1 1/2	Sandy soil									3' Sand + Clay - overburden			
	3'	Sand, gray - sampled.									8' Sand, lt. brn. s + t, fine - sampled			
														
											Little material available at point of sampling. Possible for it to occur around slope of hill west of road.			

Sample No. 95

to _____

Tape No. _____ Sample No. 96

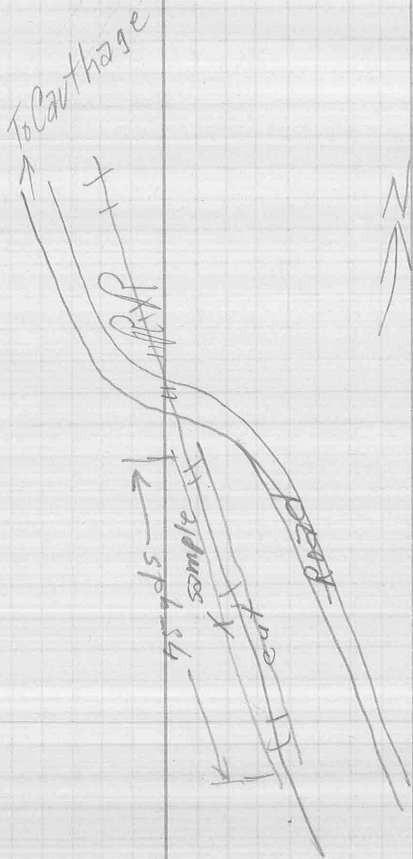
STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		o "	o "	o "

Sec. 4 T8S R.14W

Con S/L SW SE

2.7 mi. south of Carthage in cut. on C.R.I. & P. tracks 100 ft. south of road crossing.

4 1/2 ft. sand (dk. brown) with 6" gravel overburden

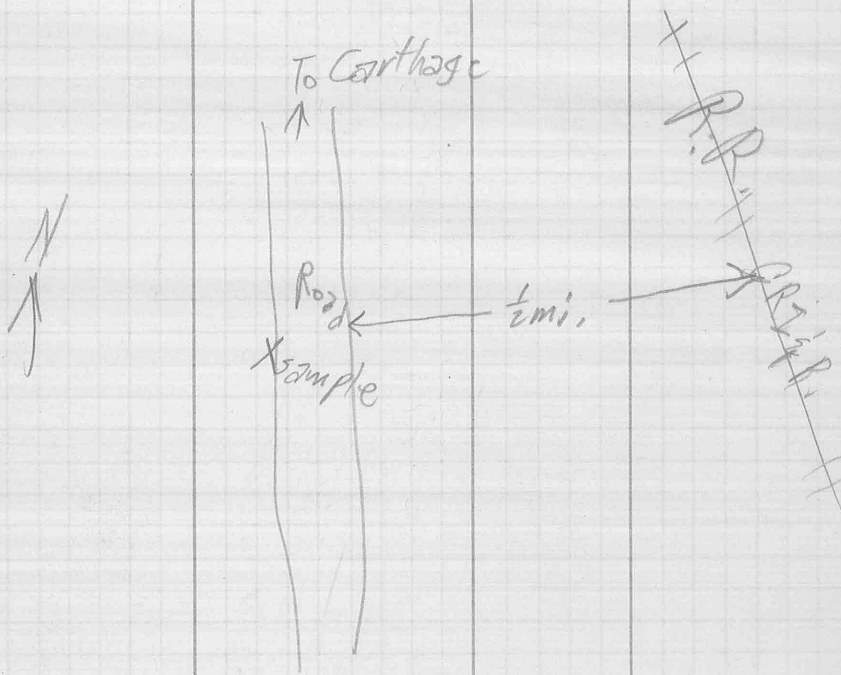


DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
o "	o "		

Sec. 35 T8S R.14W NEc SE NE

7.7 mi. south of Carthage. Exposure is in ditch on both sides of road.

2 1/2 ft. of sand containing clay, exposed.



This same sand outcrops in ditch for over a mile along road

Sample No. 97 to _____

Tape No. _____ Sample No. 98

STATION No.	STADIA DISTANCE	VERNIER A			VERNIER B			MEAN		
		°	'	"	°	'	"	°	'	"
		Sec. 30 T. 9S R. 13W NE ¹ SE ¹ SE								
outcrop in ditch on both sides of road. at point of sampling sand is 6 ft. thick, Approx. 8 mi. north of Fordyce										

DEFLECTION ANGLE	AZIMUTH			DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
	°	'	"		
	Sec. 11 T. 9S R. 17W				
	Cen NE ¹ NE				
sample taken on road where road follows top of ridge. No exposure for thickness. 5 mi. north of Sparkman. Sand covers road for over 1/2 mi.					

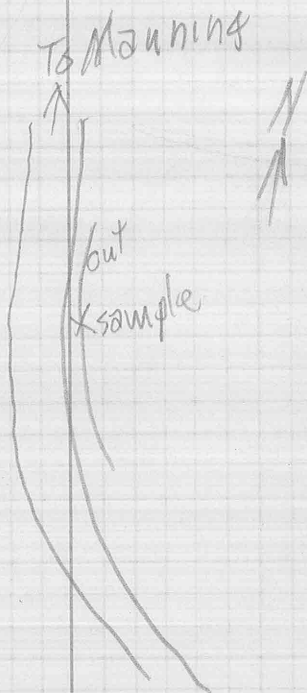
Sample No. 99 to _____

Tape No. _____ Sample No. 100

STATION No.	STADIA DISTANCE	VERNIER A	VERNIER B	MEAN
		° ' "	° ' "	° ' "

Sec. 19 T8S R.16W NW₂ SW SW

.6 mi. south of Manning. Sample taken in road cut, sand 2 1/2 ft. thick on exposure, underlain by 3 ft. of hard red sand.



DEFLECTION ANGLE	AZIMUTH	DISTANCE (FEET)	TEMPERATURE AND VERTICAL ANGLE
° ' "	° ' "		

Sec. 18 T8S R.16W SW₂ SE SE

.9 mi east of Manning. Exposure is in road cut, sand is 7 ft thick at exposure. There seems to be an abundance of this sand around Manning & also between Manning & Willow.

