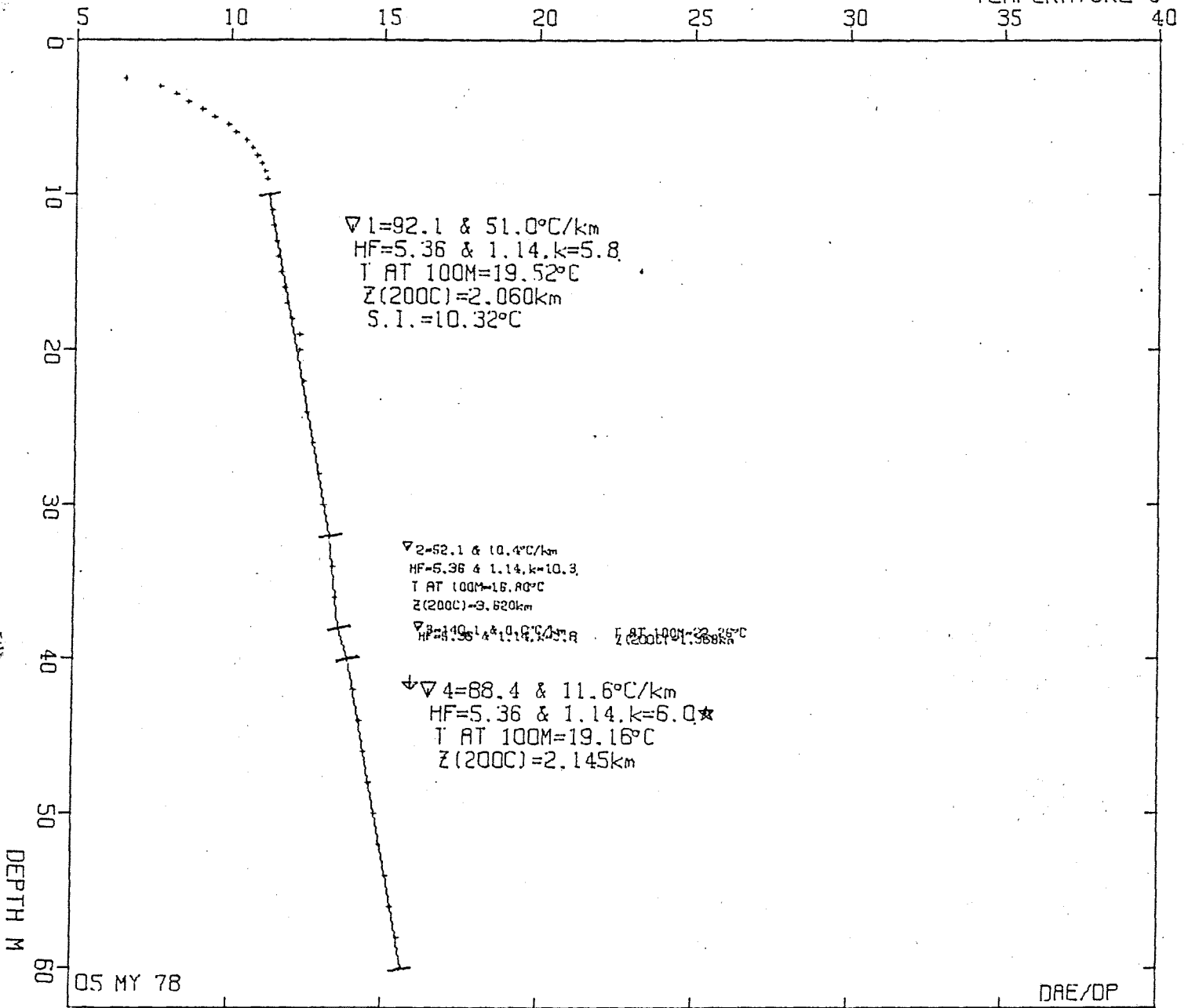


TUSCARORA, NV
4 KM WNW SPANISH RANCH
PROJ. 860 WELL 3

N.LAT 41.435, W.LONG 116.170

21 04 78

TEMPERATURE °C



05 MY 78

PROJECT TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR TEPRAIN LP LI ISZ YST
 860 3 21 04 78 4 KM WNW SPANISH RANCH DAE/DP 0.0 C 0 1 1

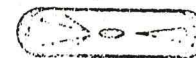
YCM XCM N.LAT W.LONG ELEV
 32.8000 10.7000 41.4354 116.1700 1746.2

J	SEG START	SEG END	CONDUCTIVITY & STD DEV.	
1	10.000	32.000	0.000	0.000
2	32.000	38.000	0.000	0.000
3	38.000	40.000	0.000	0.000
4	40.000	60.000	6.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	3 21 04 78				2.500	6.600	99999.000	1
					3.000	7.690	240.000	2
					3.500	8.190	1000.000	3
					4.000	8.610	840.000	4
					4.500	9.060	900.000	5
					5.000	9.450	780.000	6
					5.500	9.900	900.000	7
					6.000	10.160	520.000	8
					6.500	10.490	660.000	9
					7.000	10.700	420.000	10
860	3 21 04 78				7.500	10.870	340.000	11
					8.000	10.990	240.000	12
					8.500	11.100	219.999	13
					9.000	11.180	160.000	14
					10.000	11.290	110.001	15
					11.000	11.350	59.999	16
					12.000	11.410	60.000	17
					13.000	11.480	70.000	18
					14.000	11.560	80.000	19
					15.000	11.640	80.000	20
860	3 21 04 78				16.000	11.750	110.001	21
					17.000	11.850	99.999	22
					18.000	11.980	130.000	23
					19.000	12.240	260.000	24
					20.000	12.270	30.000	25
					22.000	12.380	55.000	26
					24.000	12.520	70.000	27
					26.000	12.720	100.000	28
					28.000	12.880	80.000	29
					30.000	13.050	85.000	30
860	3 21 04 78				32.000	13.260	105.000	31
					34.000	13.340	40.000	32
					36.000	13.450	55.000	33
					38.000	13.570	60.000	34
					40.000	13.850	140.000	35
					42.000	14.050	100.000	36
					44.000	14.230	90.000	37
					46.000	14.400	85.000	38



48.000	14.570	85.000	39
50.000	14.740	85.000	40
52.000	14.920	90.000	41
54.000	15.090	85.000	42
56.000	15.270	90.000	43
58.000	15.490	110.000	44
60.000	15.620	65.000	45

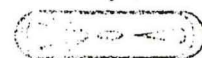
860 3 21 04 78

SURFACE INTERCEPT FOR SEGMENT 1 = 10.324

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
1	10.000	11.290	32.000	13.260	5.824	0.000	92.101	50.989	5.364	1.136	19.523	2.060
2	32.000	13.260	38.000	13.570	10.306	0.000	52.051	10.419	5.364	1.136	16.797	3.620
3	38.000	13.570	40.000	13.850	3.828	0.000	140.137	0.000	5.364	1.136	22.258	1.368
4	40.000	13.850	60.000	15.620	6.000	0.500	83.440	11.559	5.364	1.136	19.158	2.145

PRECEDING SEGMENT USED FOR EXTRAPOLATION

DATA FOR THIS WFL AND PROJECT # ALREADY ON DISK!!



MINGCOMP CORPORATION

LITHOLOGIC LOG

Tuscarora - 3

Total depth - 61 meters

Hole produces 10 gpm of 16°C(?) at 55 meters

Depth (m)

DESCRIPTION

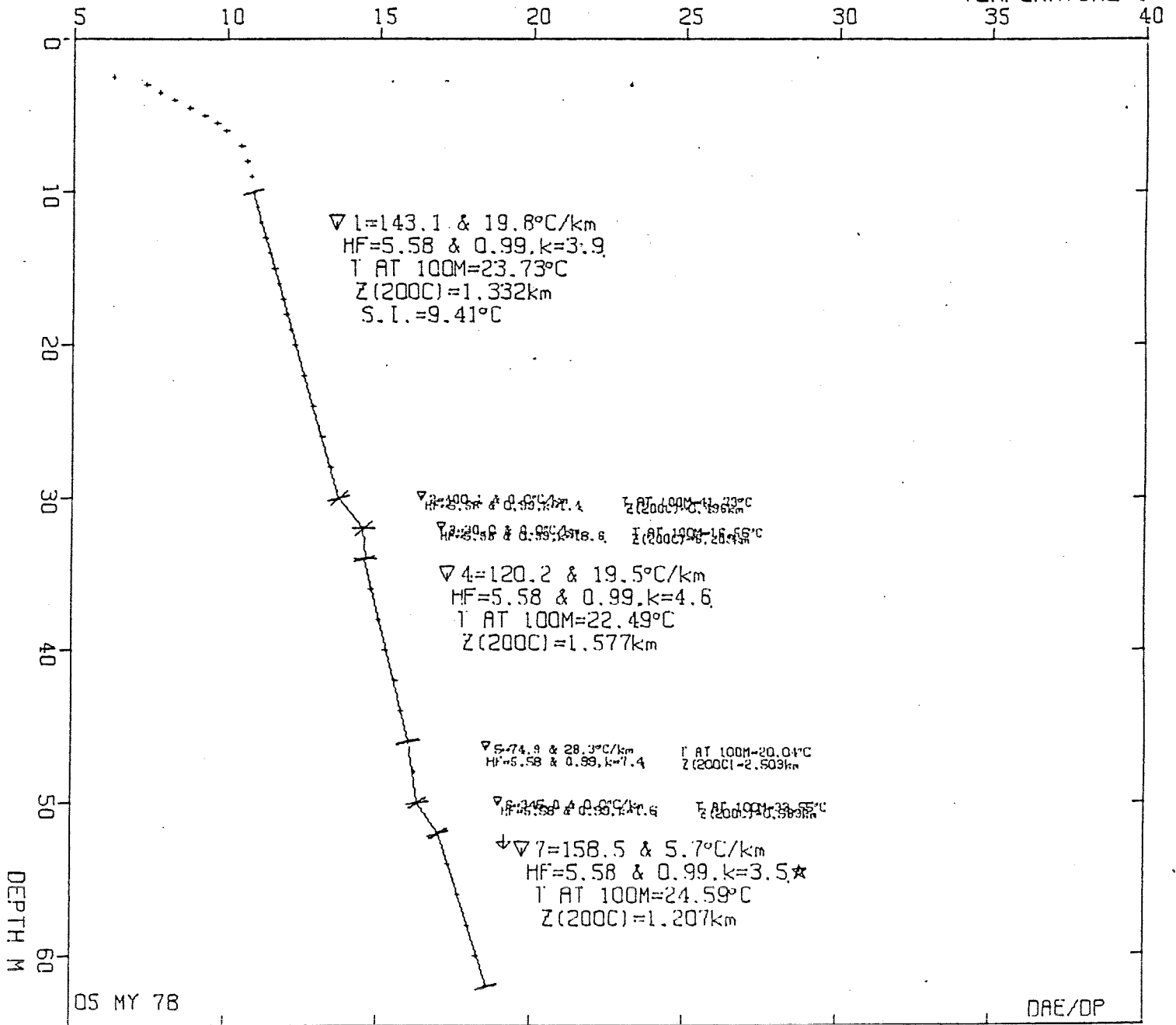
0 - 3	Brown clay and gravel.
3 - 61	Gray andesite with megascopic plagioclase and very minor olivine. Altered to clay in one meter fracture zone at 12 meters. Chips are generally fresh and unaltered.

TUSCARORA, NV
 3.7 KM NW SPANISH RANCH
 PROJ. 860 WELL 4

N. LAT 41.451, W. LONG 116.153

21 04 78

TEMPERATURE °C



PROJECT TUSCARORA, NY

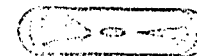
PROJ WELL DA MO YR WELL TITLE EDITOR TERRAIN LP LI ISZ IST
860 4 21 04 78 3.7 KM NW SPANISH RANCH DAE/DP 0.0 0 0 1 1

YCM XCM N.LAT W.LONG ELEV
35.6000 13.0000 41.4512 116.1528 1755.6

J	SEG START	SEG END	CONDVTY & STD DEV.	
1	10.000	30.000	0.000	0.000
2	30.000	32.000	0.000	0.000
3	32.000	34.000	0.000	0.000
4	34.000	46.000	0.000	0.000
5	46.000	50.000	0.000	0.000
6	50.000	52.000	0.000	0.000
7	52.000	62.000	3.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	4 21 04 78				2.500	6.310	99999.000	1
					3.000	7.370	2120.001	2
					3.500	7.780	820.000	3
					4.000	8.230	900.000	4
					4.500	8.750	1040.001	5
					5.000	9.270	1039.999	6
					5.500	9.630	720.000	7
					6.000	9.950	640.001	8
					7.000	10.440	490.000	9
					8.000	10.670	230.000	10
860	4 21 04 78				9.000	10.810	140.000	11
					10.000	10.900	90.000	12
					11.000	11.000	100.000	13
					12.000	11.120	120.000	14
					13.000	11.260	139.999	15
					14.000	11.400	140.000	16
					15.000	11.540	140.000	17
					16.000	11.690	150.000	18
					17.000	11.860	170.000	19
					18.000	11.960	39.999	20
860	4 21 04 78				19.000	12.090	130.000	21
					20.000	12.240	150.001	22
					22.000	12.550	155.000	23
					24.000	12.840	145.000	24
					26.000	13.140	150.000	25
					28.000	13.440	150.000	26
					30.000	13.720	140.000	27
					32.000	14.520	400.000	28
					34.000	14.580	30.000	29
					36.000	14.770	95.000	30
860	4 21 04 78				38.000	15.020	125.000	31
					40.000	15.230	105.000	32
					42.000	15.530	150.000	33
					44.000	15.750	110.000	34
					46.000	16.000	125.000	35



48.000	16.190	94.994	36
50.000	16.300	55.000	37
52.000	16.990	345.001	38
54.000	17.310	120.004	39
56.000	17.640	165.001	40
58.000	17.960	159.996	41
60.000	18.270	154.999	42
62.000	18.570	150.002	43

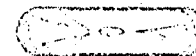
860 21 04 78

SURFACE INTERCEPT FOR SEGMENT 1 = 9.409

SEG	ZSTART	TSTART	ZEND	TEND	COND & DCON	GRADIENT & S.D.	HFL &	DHF	T AT 100M	KM
1	10.000	10.900	30.000	13.720	3.898 0.000	143.060 19.844	5.577	0.993	23.734	1.332
2	30.000	13.720	32.000	14.520	1.394 0.000	400.146 0.000	5.577	0.993	41.730	0.496
3	32.000	14.520	34.000	14.580	18.571 0.000	30.029 0.000	5.577	0.993	16.562	6.209
4	34.000	14.580	46.000	16.000	4.641 0.000	120.163 19.511	5.577	0.993	22.483	1.577
5	46.000	16.000	50.000	16.300	7.447 0.000	74.888 28.280	5.577	0.993	20.044	2.503
6	50.000	16.300	52.000	16.990	1.617 0.000	344.971 0.000	5.577	0.993	33.549	0.583
7	52.000	16.990	62.000	18.570	3.500 0.500	158.516 5.730	5.577	0.993	24.594	1.207

PRECEDING SEGMENT USED FOR EXTRAPOLATION

DATA FOR THIS WELL AND PROJECT # ALREADY ON DISK!!



MINCORP CORPORATION

LITHOLOGIC LOG

Tuscarora - 4

Total depth - 62 meters

Completely dry

Depth (m)

DESCRIPTION

0 - 62

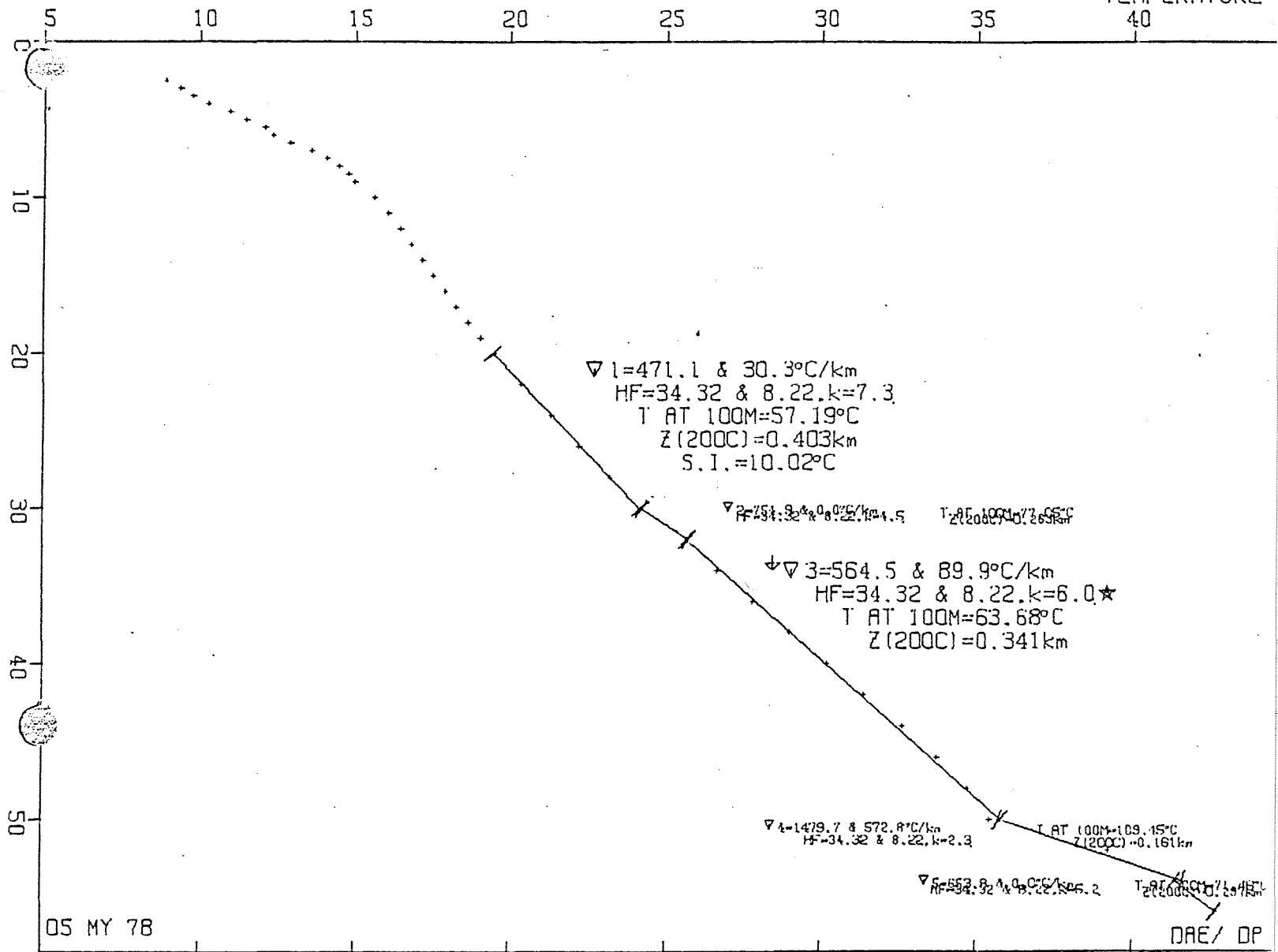
Brown-red clay with pebbles of various volcanics,
sandstone and siltstone.

TUSCARORA, NV
5 KM NW SPANISH RANCH
PROJ. 860 WELL 7

N.LAT 41.465, W.LONG 116.151

21 04 78

TEMPERATURE



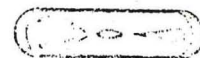
PROJECT TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR TERRAIN LP LI ISZ IST
860 7 21 04 78 5 KM NW SPANISH RANCH DAE/ DP 0.0 C 0 1 1

YCM XCM N.LAT W.LONG ELEV
38.1000 17.2000 41.4654 116.1512 1761.7

J	REG START	SEG END	CONDVTY & STD DEV.	
1	20.000	30.000	0.000	0.000
2	30.000	32.000	0.000	0.000
3	32.000	50.000	6.000	0.500
PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS				
*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***				
4	50.000	54.000	0.000	0.000
5	54.000	56.000	0.000	0.000

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.	
860		7	21	04	78	2.500	8.920	99999.000	1
					3.000	9.350	860.000	2	
					3.500	9.740	780.000	3	
					4.000	10.270	1060.000	4	
					4.500	10.930	1320.000	5	
					5.000	11.450	1040.001	6	
					5.500	12.030	1160.000	7	
					6.000	12.280	500.000	8	
					6.500	12.870	1180.000	9	
					7.000	13.560	1379.999	10	
860		7	21	04	78	7.500	14.070	1020.000	11
					8.000	14.440	740.000	12	
					8.500	14.750	620.001	13	
					9.000	14.950	400.000	14	
					10.000	15.590	640.000	15	
					11.000	16.060	460.998	16	
					12.000	16.460	399.994	17	
					13.000	16.780	320.007	18	
					14.000	17.130	349.991	19	
					15.000	17.520	390.000	20	
860		7	21	04	78	16.000	17.910	390.000	21
					17.000	18.260	350.006	22	
					18.000	18.640	380.005	23	
					19.000	19.040	399.994	24	
					20.000	19.500	460.007	25	
					22.000	20.360	429.993	26	
					24.000	21.300	470.001	27	
					26.000	22.210	455.002	28	
					28.000	23.200	495.003	29	
					30.000	24.210	504.997	30	
860		7	21	04	78	32.000	25.720	754.997	31
					34.000	26.660	470.001	32	
					36.000	27.800	570.000	33	
					38.000	28.990	595.001	34	
					40.000	30.180	595.001	35	
					42.000	31.420	620.003	36	
					44.000	32.670	625.000	37	



46.000	33.770	549.996	38
48.000	34.730	480.003	39
50.000	35.460	364.998	40
52.000	39.230	1385.002	41
54.000	41.380	1074.997	42
56.000	42.690	654.999	43

860 7 21 04 78

SURFACE INTERCEPT FOR SEGMENT 1 = 10.018

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
1	20.000	19.500	30.000	24.210	7.284	0.000	471.132	30.293	34.319	8.218	57.189	0.403

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
2	30.000	24.210	32.000	25.720	4.546	0.000	754.883	0.000	34.319	8.218	77.052	0.263

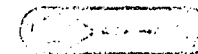
SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
3	32.000	25.720	50.000	35.460	6.000	0.500	564.483	89.934	34.319	8.218	63.684	0.341

PRECEDING SEGMENT USED FOR EXTRAPOLATION

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
4	50.000	35.460	54.000	41.380	2.319	0.000	1479.722	572.760	34.319	8.218	109.447	0.161

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
5	54.000	41.380	56.000	42.690	5.249	0.000	653.809	0.000	34.319	8.218	71.458	0.297

DATA FOR THIS WELL AND PROJECT # ALREADY ON DISK!!



MINCOMP CORPORATION

LITHOLOGIC LOG

Tuscarora - 7

Total depth - 57 meters

Hole produces 10 gpm of 22°C(?) water at 52 meters

Depth (m)

DESCRIPTION

0 - 3

Gravel and cream colored clay.

3 - 57

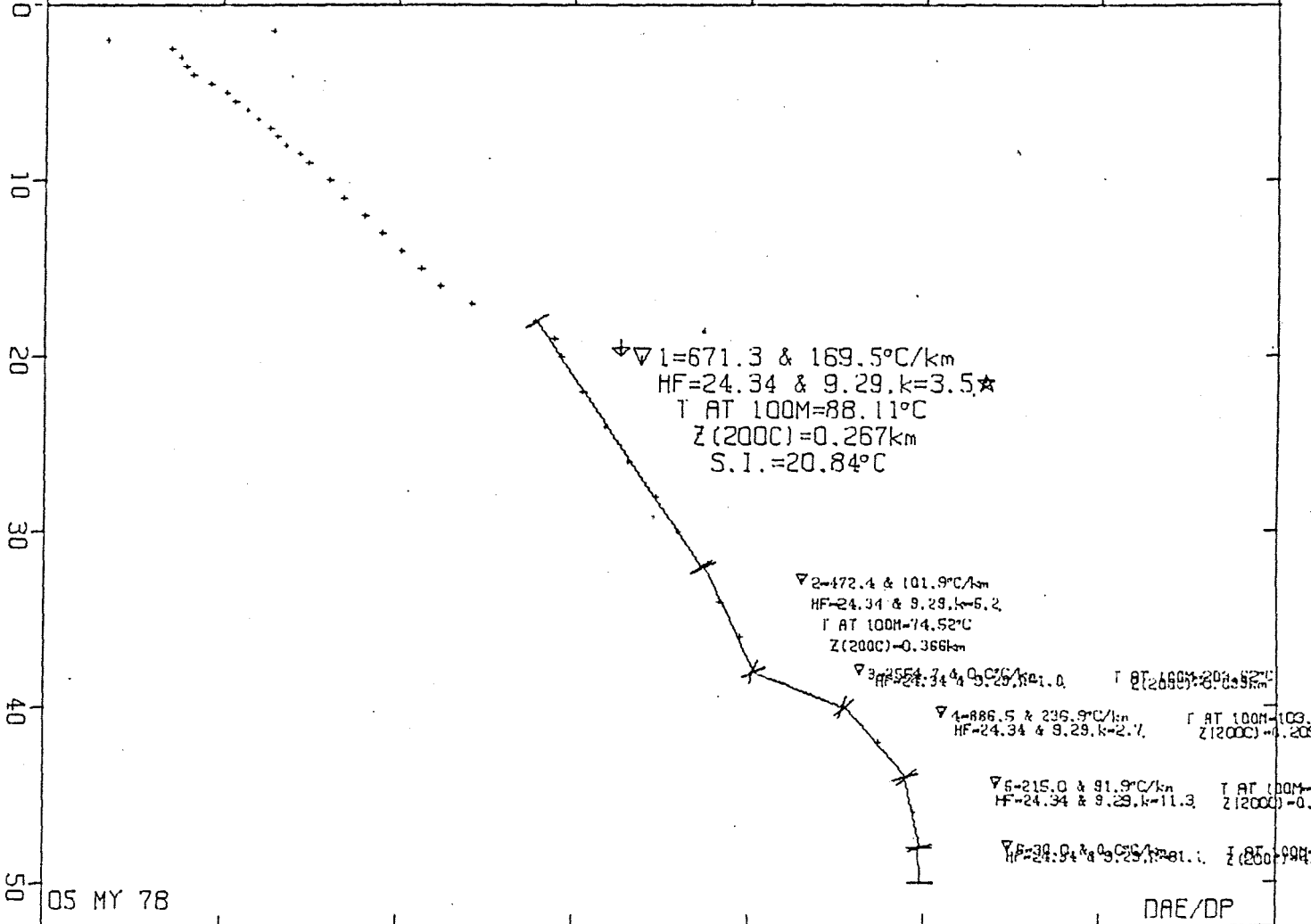
Arkosic sandstone with abundant mica flakes. Quartz grains are angular to subrounded. Minor fragments of green-black chert.

TUSCARORA, NV
 5.4 KM NNW SPANISH RANCH
 PROJ. 860 WELL 8 21 04 78

N. LAT 41.474, W. LONG 116.140

TEMPERATURE °C

5 15 25 35 45 55 65 75



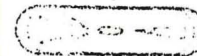
PROJECT TUSCARORA, NV

PROJ WELL DA MM YR WELL TITLE EDITOR TERPAIRN LP LI ISZ 1ST
860 8 21 04 78 5.4 KM NNW SPANISH RANCH DAE/DP 0.0 0 0 1 1

YCM XCM N.LAT W.LONG ELEV
39.6000 14.7000 41.4738 116.1400 1795.3

J	SEG START	SEG END	CONDUCTIVITY & STD DEV.	
1	18.000	32.000	3.500	0.500
PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS				
*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***				
2	32.000	38.000	0.000	0.000
3	38.000	40.000	0.000	0.000
4	40.000	44.000	0.000	0.000
5	44.000	48.000	0.000	0.000
6	48.000	50.000	0.000	0.000

PROJ	WELL	DA	MM	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		8	21	04 78	1.500	17.860	9999.000	1
					2.000	8.540	18639.969	2
					2.500	12.060	7040.000	3
					3.000	12.590	1060.000	4
					3.500	12.920	660.000	5
					4.000	13.310	780.000	6
					4.500	14.250	1880.001	7
					5.000	15.250	2000.000	8
					5.500	15.680	859.999	9
					6.000	16.360	1359.972	10
860		8	21	04 78	6.500	17.050	1380.005	11
					7.000	17.720	1339.997	12
					7.500	18.130	820.007	13
					8.000	18.650	1040.009	14
					8.500	19.370	1440.002	15
					9.000	19.940	1139.984	16
					10.000	21.100	1160.004	17
					11.000	21.910	309.998	18
					12.000	23.150	1240.006	19
					13.000	24.110	959.991	20
860		8	21	04 78	14.000	25.220	1110.001	21
					15.000	26.320	1100.006	22
					16.000	27.440	1119.995	23
					17.000	29.200	1760.010	24
					18.000	32.850	3649.994	25
					19.000	33.870	1020.004	26
					20.000	34.310	440.002	27
					22.000	35.480	534.999	28
					24.000	36.830	674.996	29
					26.000	38.150	660.004	30
860		8	21	04 78	28.000	39.690	769.997	31
					30.000	40.950	630.005	32
					32.000	42.460	754.997	33
					34.000	43.350	445.000	34
					36.000	44.490	570.000	35
					38.000	45.230	370.003	36



		40.000	50.340	2555.000	37
		42.000	52.450	1055.000	38
		44.000	53.890	720.001	39
		46.000	54.450	279.999	40
860	8 21 04 78	48.000	54.750	150.002	41
		50.000	54.810	29.999	42

SURFACE INTERCEPT FOR SEGMENT 1 = 20.842

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
1	18.000	32.850	32.000	42.460	3.500	0.500	671.281	169.512	24.342	9.289	88.107	0.267

PRECEDING SEGMENT USED FOR EXTRAPOLATION

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
2	32.000	42.460	38.000	45.230	5.153	0.000	472.363	101.881	24.342	9.289	74.517	0.366

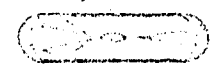
SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
3	38.000	45.230	40.000	50.340	0.953	0.000	2554.688	0.000	24.342	9.289	203.621	0.099

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
4	40.000	50.340	44.000	53.890	2.746	0.000	886.478	236.885	24.342	9.289	103.533	0.209

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
5	44.000	53.890	48.000	54.750	11.324	0.000	217.959	91.922	24.342	9.289	65.928	0.724

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFL	DHF	T AT 100M	KM
6	48.000	54.750	50.000	54.810	81.062	0.000	39.029	0.000	24.342	9.289	56.311	4.885

DATA FOR THIS WELL AND PROJECT # ALREADY ON DISK!!



MINGOMF CORPORATION

LITHOLOGIC LOG

Tuscarora - 8

Total depth - 50 meters

Holes makes about 50 gpm of 62°C water at 47 meters .

Depth (m)

DESCRIPTION

0 - 13.7

Brown sandy clay.

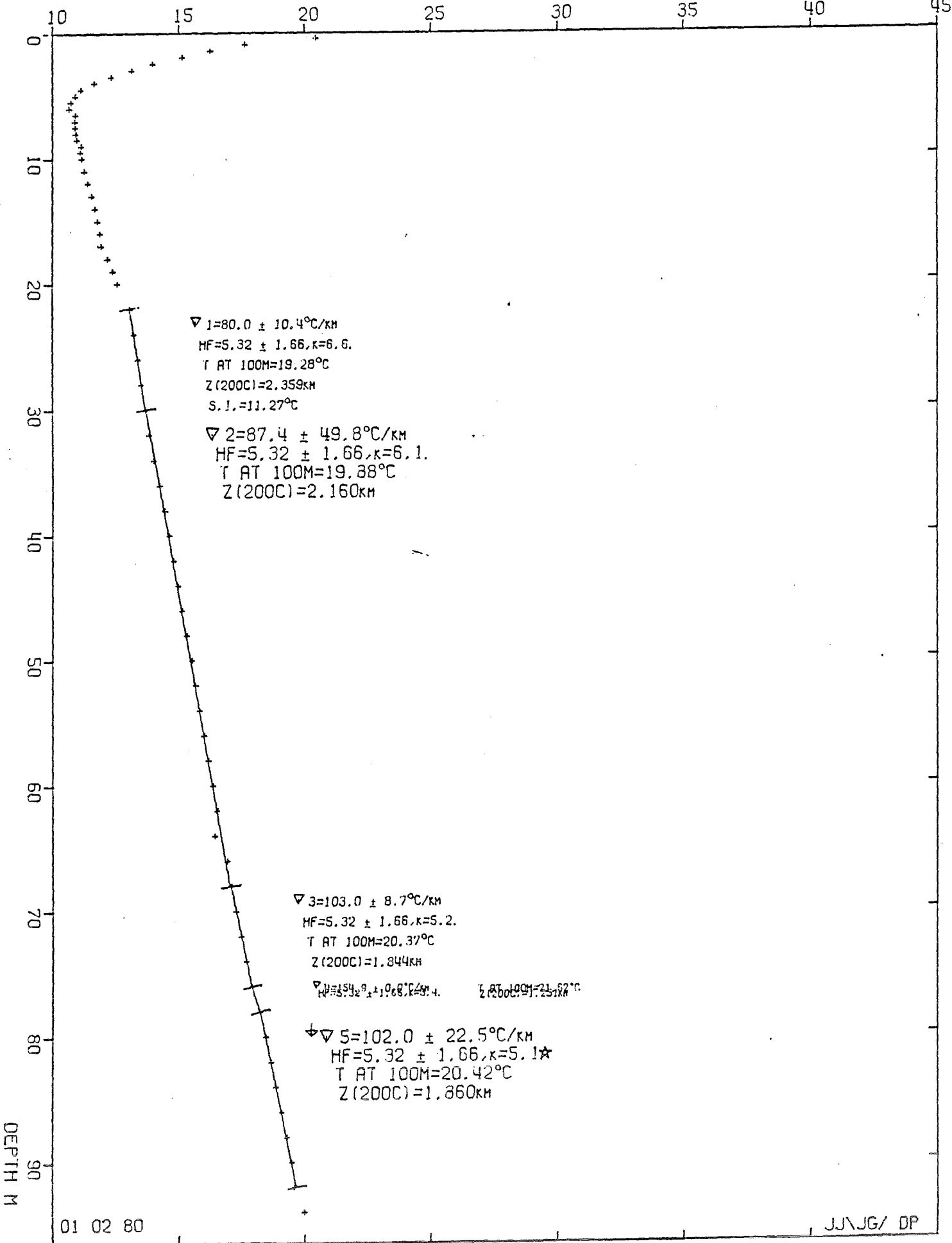
13.7 - 50

Rhyolite flow (?) altered in part to a blue gray clay.

TUSLARUKH, NV
 4.6 KM SW HOT SULPHUR SPS
 PROJ. 860 WELL 13 26 8 79

N.LAT 41.442, W.LONG 116.191

TEMPERATURE °C



07 03 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860		13	26	8 79	4.6 KM SW HOT SULPHUR SPS	JJA/JG/ DP	30 6 79	0	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
33.9000	7.9000	41.4416	116.1909	1691.6

J	SEG START	SEG END	CONDIVITY	STD DEV.
1	22.000	30.000	0.000	0.000
2	30.000	68.000	0.000	0.000
3	68.000	76.000	0.000	0.000
4	76.000	78.000	0.000	0.000
5	78.000	92.000	5.100	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		13	26	8 79	0.500	20.460	9999.000	1
					1.000	17.620	-5680.001	2
					1.500	16.250	-2739.998	3
					2.000	15.120	-2260.002	4
					2.500	13.970	-2300.000	5
					3.000	13.130	-1680.000	6
					3.500	12.320	-1619.999	7
					4.000	11.650	-1340.000	8
					4.500	11.110	-1080.002	9
					5.000	10.890	-439.999	10
860		13	26	8 79	5.500	10.710	-360.001	11
					6.000	10.650	-119.999	12
					6.500	10.900	500.000	13
					7.000	10.880	-40.001	14
					7.500	10.890	20.000	15
					8.000	10.910	40.001	16
					8.500	10.940	59.998	17
					9.000	11.120	360.001	18
					9.500	11.080	-79.998	19
					10.000	11.140	119.999	20
860		13	26	8 79	11.000	11.250	110.001	21
					12.000	11.390	139.999	22
					13.000	11.540	150.000	23
					14.000	11.680	139.999	24
					15.000	11.770	90.000	25
					16.000	11.870	100.000	26
					17.000	11.920	49.999	27
					18.000	12.170	250.000	28
					19.000	12.380	210.001	29

			20.000	12.550	170.000	30
860	13 26 8 79		22.000	13.030	240.000	31
			24.000	13.190	80.000	32
			26.000	13.350	80.000	33
			28.000	13.490	70.001	34
			30.000	13.680	94.999	35
			32.000	13.820	70.001	36
			34.000	14.000	90.000	37
			36.000	14.230	115.000	38
			38.000	14.430	99.999	39
860	13 26 8 79		40.000	14.600	85.000	40
			42.000	14.780	90.000	41
			44.000	14.960	90.000	42
			46.000	15.110	75.000	43
			48.000	15.300	95.000	44
			50.000	15.500	100.000	45
			52.000	15.630	65.000	46
			54.000	15.790	80.000	47
			56.000	15.980	95.000	48
			58.000	16.160	90.000	49
			60.000	16.350	94.999	50
860	13 26 8 79		62.000	16.510	80.000	51
			64.000	16.420	-45.000	52
			66.000	16.910	245.001	53
			68.000	17.080	84.999	54
			70.000	17.260	90.000	55
			72.000	17.470	105.000	56
			74.000	17.680	105.000	57
			76.000	17.900	110.001	58
			78.000	18.210	155.001	59
			80.000	18.440	115.000	60
860	13 26 8 79		82.000	18.660	110.001	61
			84.000	18.840	89.998	62
			86.000	19.080	120.001	63
			88.000	19.300	110.001	64
			90.000	19.490	94.999	65
			92.000	19.600	55.000	66
			94.000	19.990	195.000	67

SURFACE INTERCEPT FOR SEGMENT 1 = 11.268

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	22.000	13.030	30.000	13.680	6.646	0.000	80.003	10.407	5.317	1.655	19.280	2.359
2	30.000	13.680	68.000	17.080	6.082	0.000	87.422	49.847	5.317	1.655	19.878	2.160
3	68.000	17.080	76.000	17.900	5.163	0.000	102.970	8.677	5.317	1.655	20.371	1.844
4	76.000	17.900	78.000	18.210	3.432	0.000	154.919	0.000	5.317	1.655	21.618	1.251

SFG	ZSTART	TSTART	ZEND	TEND	COND	&	DCON	GRADIENT	&	S.D.	HFU	&	CHF	T AT 100M	KM
5	78.000	18.210	92.000	19.600	5.100		0.500	102.048		22.453	5.317		1.655	20.416	1.860

PRECEDING SEGMENT USED FOR EXTRAPOLATION.

Project: TUSCARORA
Hole 860-13

Location: 41N 51E 24 SW 1/4 NW 1/4 NE 1/4

Elevation: 5550'

Date Drilled: 6-30-79

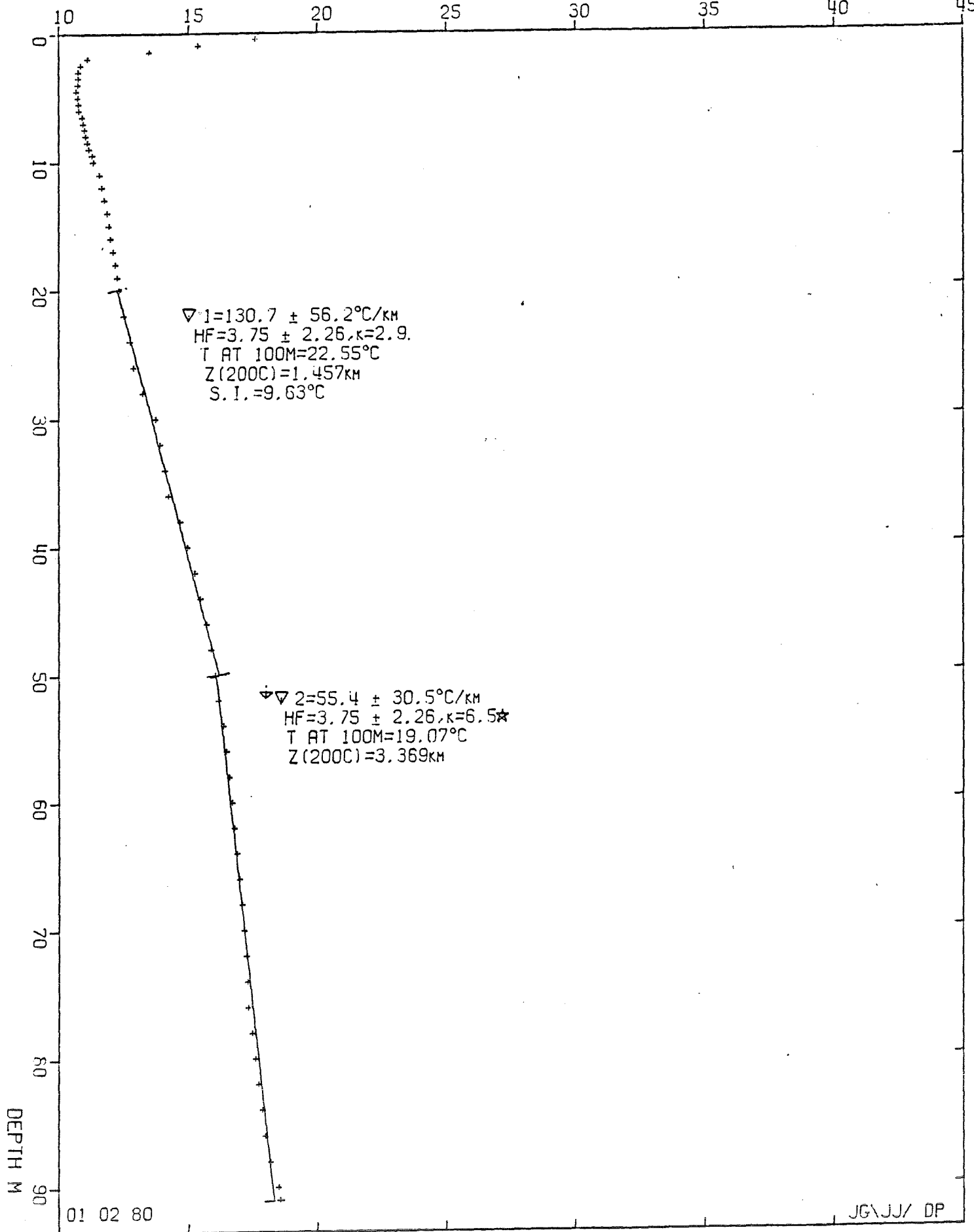
Method: Hammer/air-foam

Depth (m)	Description
0-6m.	Alluvium. Clay, silt, sand, gravel and boulders. Unconsolidated. Soil horizons.
6-12m.	Volcanic flow. Medium greenish-gray rhyodacite. Biotite minor mineral. Aphanitic stony ground mass. Considerable feldspar phenocrysts, altering white and pale green. Porphyritic.
12-18m.	Light gray welded crystal tuff bearing plag., quartz and pyroxenes.
18-27m.	Medium gray rhyodacite. Aphanitic ground mass appears stony and glassy. Phenocrysts of pyroxene and feldspar. Porphyritic.
27-33m.	As above, however, groundmass appearing exclusively stony and color becoming pink and gray. Dense, low porosity, about 50% ground mass (as porphyritic rhyodacites above). Euhedral greenish-black pyroxene crystals, feldspar crystals.
33-42m.	Sand and gravels of above volcanic materials. Sub-angular to sub-rounded. Predominantly granule size gravel and coarse sand. Some fine sand, little clay. Minor portion rounded and sub-rounded sedimentary clasts. Quartzite, sandstone, argillite.
42-54m.	As 33-42m, however, sedimentary clasts predominant over volcanic debris. Gravels up to large pebble size and sub-rounded.
54-65m.	Sandy gravels of composition as 6-12m. Generally granule sized, sub-angular to sub-round.
65-78m.	Gravelly sand of 54-65m composition, grading into a 30% sedimentary composition towards 78m.
78-90m.	Sandy gravel of above volcanic lithologies. Gravel generally granule size and sub-angular to angular. Pyroxene hornblende rhyolite with zoned feldspar phenocrysts (calcic cores), darker stonier rhyodacite porphyry as previously described. Possible keratophyric materials contains turquoise colored feldspars in stony purple gray ground mass.
	Exposure to sun: good
	Vegetation: sparse grass and brush
	Land use: cattle and horse grazing
	γ-scan:
	Ground water: driller reports 35 gal/min at 22m. Location about 15m. above Owyhee River and 135 m. laterally from it in canyon at base of 20° slope.

TUSCARORA, NV
5.6 KM WSW HOT SULPHUR SPS
PROJ. 860 WELL 14 28 8 79

N.LAT 41.455; W.LONG 116.215

TEMPERATURE °C



01 02 80

JG\JJ/ DP

GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

07 03 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860		14	28	8 79	5.6 KM WSW HOT SULPHUR SPS	JG\JJ/ DP	1 7 79	0	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
36.3000	4.7000	41.4552	116.2149	1682.5

J	SEG START	SEG END	CONDTVTY	STD DEV.
1	20.000	50.000	0.000	0.000
2	50.000	91.000	6.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		14	28	8 79	0.500	17.580	99999.000	1
					1.000	15.360	-4439.999	2
					1.500	13.470	-3779.999	3
					2.000	11.090	-4760.003	4
					2.500	10.830	-519.997	5
					3.000	10.750	-160.000	6
					3.500	10.740	-20.000	7
					4.000	10.720	-40.001	8
					4.500	10.670	-100.002	9
					5.000	10.710	80.002	10
860		14	28	8 79	5.500	10.760	99.998	11
					6.000	10.780	40.001	12
					6.500	10.890	220.001	13
					7.000	10.930	79.998	14
					7.500	10.990	120.003	15
					8.000	11.020	59.998	16
					8.500	11.090	139.999	17
					9.000	11.160	140.003	18
					9.500	11.270	219.997	19
					10.000	11.310	80.002	20
860		14	28	8 79	11.000	11.550	240.000	21
					12.000	11.650	100.000	22
					13.000	11.740	90.000	23
					14.000	11.850	109.999	24
					15.000	11.920	70.000	25
					16.000	11.980	60.001	26
					17.000	12.080	100.000	27
					18.000	12.180	99.998	28
					19.000	12.240	60.001	29
					20.000	12.310	70.000	30
860		14	28	8 79	22.000	12.490	90.000	31
					24.000	12.730	120.000	32

	26.000	12.860	65.000	33	
	28.000	13.210	175.000	34	
	30.000	13.710	250.000	35	
	32.000	13.890	90.000	36	
	34.000	14.080	95.000	37	
	36.000	14.210	65.000	38	
	38.000	14.660	225.000	39	
	40.000	14.940	139.999	40	
860	14 28 8 79	42.000	15.230	145.000	41
		44.000	15.450	110.000	42
		46.000	15.680	115.000	43
		48.000	15.860	90.000	44
		50.000	16.010	75.000	45
		52.000	16.130	59.999	46
		54.000	16.330	100.000	47
		56.000	16.460	65.001	48
		58.000	16.570	55.000	49
860	14 28 8 79	60.000	16.680	54.998	50
		62.000	16.770	45.000	51
		64.000	16.870	50.001	52
		66.000	16.970	49.999	53
		68.000	17.070	50.001	54
		70.000	17.150	39.999	55
		72.000	17.230	40.001	56
		74.000	17.290	29.999	57
		76.000	17.310	10.000	58
		78.000	17.470	80.000	59
860	14 28 8 79	80.000	17.590	59.999	60
		82.000	17.710	60.001	61
		84.000	17.860	74.999	62
		86.000	17.980	60.001	63
		88.000	18.190	105.000	64
		90.000	18.490	150.000	65
		91.000	18.570	80.002	66

SURFACE INTERCEPT FOR SEGMENT 1 = 9.632

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT & S.D.	HFU	DHF	T AT 100M	KF
1	20.000	12.310	50.000	16.010	2.869	0.000	130.735 56.160	3.750	2.257	22.547	1.457
2	50.000	16.010	91.000	18.570	6.500	0.500	55.352 30.464	3.750	2.257	19.068	3.369

PRECEDING SEGMENT USED FOR EXTRAPOLATION

Project: Tuscarora
Hole 860-14

Location: 41N 51E 14 SW1/4 NE 1/4 NW 1/4

Elevation: 5520'

Date Drilled: 6-30-79

Method: rotary/air foam to 7m.
 hammer/air to T. D.

Depth (m)	Description
0-2m.	Clay, silt, sand and gravel, unconsolidated, high in organic material. Lithic debris rounded and a mix of sedimentary and volcanic material.
2-12m.	Silt, sand and gravels granule to small pebbles in size. Unconsolidated. Reworked friable white ash-fall tuff bearing biotite.
12-42m.	Reworked white tuff. Consolidated (but sub-lithified) highly friable silt, sand and volcanic and sedimentary lithic debris. Predominantly white silt and sand of tuffaceous origin. Lithic gravels include rounded quartzite, argillite and rhyodacitic flow rock.
42-90m.	As above, however, increased amounts of sedimentary lithic gravels (quartzite, argillite, siltite etc.) which are rounded. Some light gray, rounded gravel of siliceous crystal tuff composed of about 20% crystals, mostly plagioclase feldspar. 80% tuffaceous material of med. sand and smaller. Tuffaceous silt and sand bears hornblende and pyroxene grains, also minor biotite content.
42-48m.	predominantly tuffaceous silt and sand.
48-51m.	70% above material, 30% equal amounts of volcanic and sedimentary lithic gravels.
51-63m.	same, lithic gravels predominantly sedimentary
63-90m.	gravels represent 50% of samples. Sedimentary gravels predominant. 50% white tuffaceous silt and sand.
Exposure to sun: good	
Vegetation: sparse grass and brush	
Land use: cattle and horse grazing	
γ-scan:	
Ground water: driller reports hole making 100 gal/min at 40m. Located in Owyhee river canyon at base of 25° slope 150m. from river.	

TUSCARORA, NV
6.2 KM W HOT SULPHUR SPG

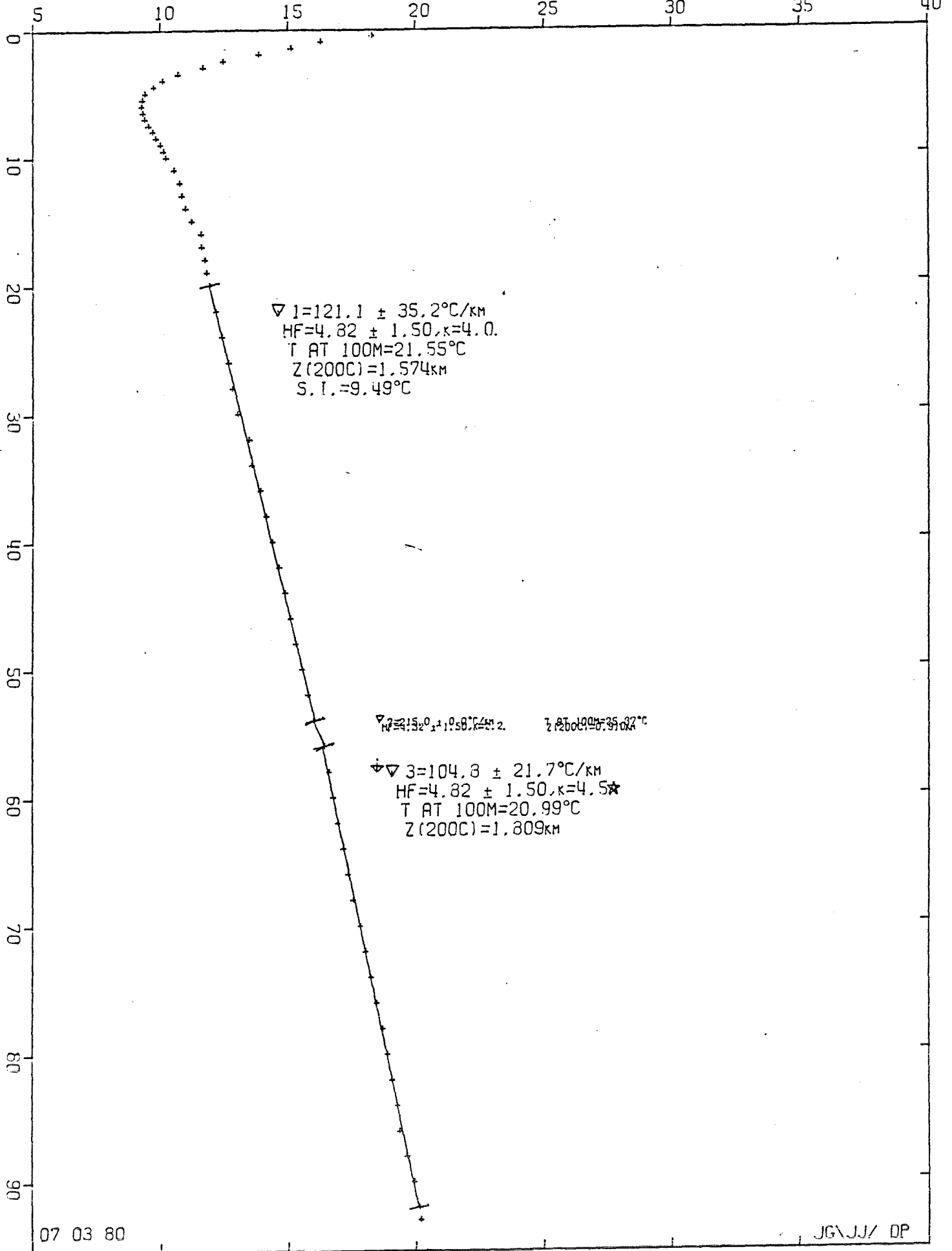
N.LAT 41.473; W.LONG 116.226

PROJ. 360

WELL 15

26 8 79

TEMPERATURE °C



GEO THERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

07 03 80
PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860		15	26	8 79	6.2 KM W HCT SULPHUR SPG	JG\JJ/ EP	30 6 79	0	0	1	1

YCM	XCM	N.LAT	W.LONG	FLEV
39.5000	3.2000	41.4733	116.2261	1670.3

J	SEG START	SEG END	CONDTVTY	STD DEV.
1	20.000	54.000	0.000	0.000
2	54.000	56.000	0.000	0.000
3	56.000	92.000	4.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		15	26	8 79	0.500	18.290	99999.000	1
					1.000	16.280	-4019.997	2
					1.500	15.110	-2340.000	3
					2.000	13.870	-2480.000	4
					2.500	12.440	-2860.001	5
					3.000	11.670	-1540.001	6
					3.500	10.700	-1939.999	7
					4.000	10.090	-1220.001	8
					4.500	9.730	-719.997	9
					5.000	9.410	-639.999	10
860		15	26	8 79	5.500	9.300	-220.001	11
					6.000	9.280	-40.001	12
					6.500	9.330	100.002	13
					7.000	9.410	160.000	14
					7.500	9.540	259.998	15
					8.000	9.700	320.000	16
					8.500	9.830	260.002	17
					9.000	10.000	340.000	18
					9.500	10.120	239.998	19
					10.000	10.230	220.001	20
860		15	26	8 79	11.000	10.530	299.999	21
					12.000	10.770	240.000	22
					13.000	10.840	70.000	23
					14.000	10.990	150.002	24
					15.000	11.230	240.000	25
					16.000	11.600	369.999	26
					17.000	11.620	20.000	27
					18.000	11.740	120.001	28
					19.000	11.810	70.000	29
					20.000	11.910	100.000	30
860		15	26	8 79	22.000	12.170	129.999	31

	24.000	12.390	110.001	32	
	26.000	12.650	130.000	33	
	28.000	12.800	75.000	34	
	30.000	13.020	110.000	35	
	32.000	13.450	215.000	36	
	34.000	13.550	50.000	37	
	36.000	13.900	175.000	38	
	38.000	14.140	120.000	39	
860	15 26 8 79	40.000	14.380	120.000	40
		42.000	14.620	120.000	41
		44.000	14.850	115.000	42
		46.000	15.080	115.001	43
		48.000	15.290	105.000	44
		50.000	15.530	120.000	45
		52.000	15.750	110.001	46
		54.000	15.980	115.000	47
		56.000	16.410	215.000	48
		58.000	16.590	89.998	49
860	15 26 8 79	60.000	16.740	75.001	50
		62.000	16.920	90.000	51
		64.000	17.140	110.001	52
		66.000	17.330	94.999	53
		68.000	17.530	100.000	54
		70.000	17.800	135.000	55
		72.000	18.010	105.000	56
		74.000	18.230	110.001	57
		76.000	18.460	115.000	58
		78.000	18.690	115.000	59
860	15 26 8 79	80.000	18.870	90.000	60
		82.000	19.050	90.000	61
		84.000	19.270	109.999	62
		86.000	19.380	55.000	63
		88.000	19.660	140.001	64
		90.000	19.940	139.999	65
		92.000	20.150	105.000	66
		93.000	20.210	60.001	67

SURFACE INTERCEPT FOR SEGMENT 1 = 9.490

SFG	ZSTART	TSTART	ZEND	TEND	COND	&	DCON	GRADIENT	&	S.D.	HFU	&	DHF	T AT 100M	KM
1	20.000	11.910	54.000	15.980	3.984		0.000	121.084		35.183	4.824		1.503	21.550	1.574
2	54.000	15.980	56.000	16.410	2.244		0.000	214.958		0.000	4.824		1.503	25.668	0.910
3	56.000	16.410	92.000	20.150	4.500		0.500	104.773		21.750	4.824		1.503	20.988	1.809

PRECEDING SEGMENT USED FOR EXTRAPOLATION

Project: Tuscarora
 Hole 860-15

Location: 41N 51E 3 SE 1/4 SW 1/4 SE 1/4

Elevation: 5480'

Date Drilled: 6-30-79

Method: rotary/air foam

Depth (m)	Description
0-10m.	Unconsolidated silt, sand and gravels to cobble size. 90% fine sand and silt, tuffaceous origin. Lithic gravels are volcanic in origin.
10-30m.	Consolidated but highly friable gravelly sand and silt of tuffaceous origin. White color, ash and clay cement, some quartz sand.
30-39m.	Poorly consolidated silt, sand and gravels of well indurated crystal tuff. Tuff is off-white, 50% crystals of predominantly feldspar, also hornblende and biotite. Ground mass a light gray to white pumaceous ash. Some feldspar altering to Christmas tree green color. Reworked tuff. 35% sub-rounded gravel 50% sand 15% silt
39-90m.	Primary deposit of white ash fall crystal tuff. Crystals of pyroxene, hornblende and feldspars. Lightweight and highly porous. Friable. Exposure: well exposed to sun Vegetation: sparse grass and brush Land use: cattle and horse grazing Ground water: driller reports no water lost or gained. Located in small valley near juncture with Owyhee river canyon, 150m. from Owyhee River at base of 25° slope. δ -scan:

1.6 KM SE SPANISH RANCH

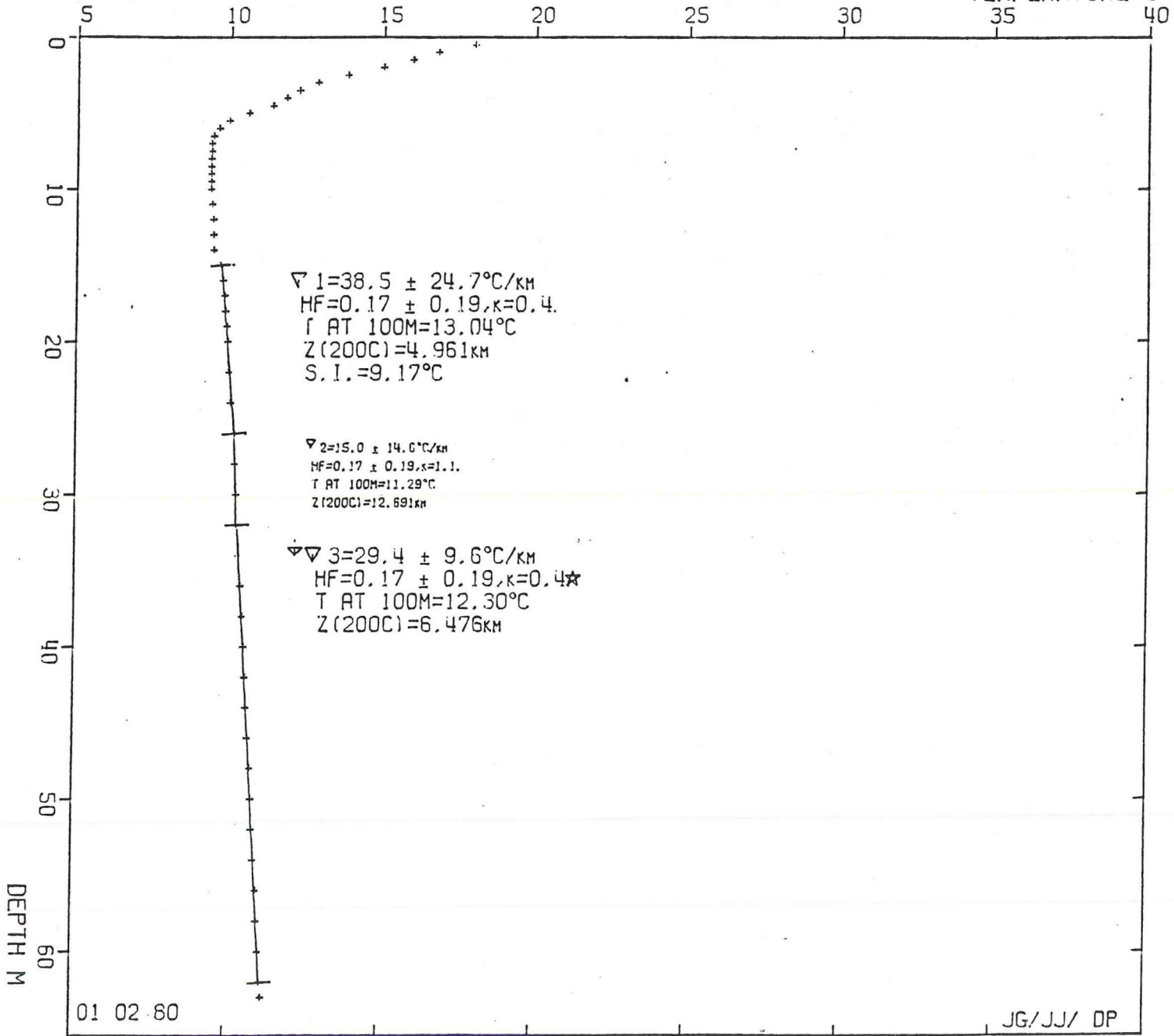
N.LAT 41.417; W.LONG 116.108

PROJ. 860

WELL 16

23 8 79

TEMPERATURE °C



GEOTHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

07 03 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860		16	23	8 79	1.6 KM SE SPANISH RANCH	JG/JJ/ DP	18 6 79	0	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
29.6000	19.0500	41.4173	116.1076	1757.2

J	SEG START	SEG END	CONDTVTY	STD DEV.
1	15.000	26.000	0.000	0.000
2	26.000	32.000	0.000	0.000
3	32.000	62.000	0.400	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		16	23	8 79	0.500	17.970	99999.000	1
					1.000	16.770	-2400.002	2
					1.500	15.930	-1679.997	3
					2.000	14.980	-1899.998	4
					2.500	13.820	-2320.000	5
					3.000	12.860	-1920.002	6
					3.500	12.250	-1219.998	7
					4.000	11.810	-880.001	8
					4.500	11.370	-880.001	9
					5.000	10.590	-1560.001	10
860		16	23	8 79	5.500	9.940	-1299.999	11
					6.000	9.620	-639.999	12
					6.500	9.440	-360.001	13
					7.000	9.380	-119.999	14
					7.500	9.390	20.000	15
					8.000	9.370	-40.001	16
					8.500	9.370	0.000	17
					9.000	9.370	0.000	18
					9.500	9.370	0.000	19
					10.000	9.370	0.000	20
860		16	23	8 79	11.000	9.410	40.001	21
					12.000	9.450	39.999	22
					13.000	9.470	20.000	23
					14.000	9.480	10.000	24
					15.000	9.700	219.999	25
					16.000	9.790	90.000	26
					17.000	9.840	49.999	27
					18.000	9.880	40.001	28
					19.000	9.920	39.999	29
					20.000	9.950	30.001	30
860	16	23	8 79	22.000	9.990	20.000	31	

	24.000	10.050	30.000	32
	26.000	10.190	70.000	33
	28.000	10.200	5.000	34
	30.000	10.260	30.000	35
	32.000	10.270	5.000	36
	34.000	10.360	45.000	37
	36.000	10.420	30.000	38
	38.000	10.490	35.001	39
	40.000	10.550	30.000	40
860 16 23 8 79	42.000	10.600	25.000	41
	44.000	10.630	15.000	42
	46.000	10.700	35.000	43
	48.000	10.790	45.000	44
	50.000	10.830	20.000	45
	52.000	10.870	20.000	46
	54.000	10.930	30.000	47
	56.000	11.020	45.000	48
	58.000	11.060	20.000	49
860 16 23 8 79	60.000	11.120	30.000	50
	62.000	11.180	30.000	51
	63.000	11.230	50.001	52

SURFACE INTERCEPT FOR SEGMENT 1 = 9.167

SEG	ZSTART	TSTART	ZEND	TEND	COND	& DCON	GRADIENT & S.D.	HFU	&	DHF	T AT 100M	KM
1	15.000	9.700	26.000	10.190	0.431	0.000	38.459 24.707	0.166		0.186	13.036	4.961
2	26.000	10.190	32.000	10.270	1.105	0.000	14.988 14.575	0.166		0.186	11.289	12.691
3	32.000	10.270	62.000	11.180	0.400	0.500	29.439 9.582	0.166		0.186	12.299	6.476

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-16

Location: 41N 52E 27 NE 1/4 SE 1/4 SE 1/4

Elevation: 5765'

Date Drilled: 6-(14-17)-79

Method: rotary/mud

Depth (m)

Description

General description: Valley floor alluvium

Unconsolidated silt, sand and gravel up to boulder size composed predominantly of silica. Various quartzites ranging in color from light silver gray to med. gray and light and dark banded gray, all generally fine grained. Dark gray siliceous mudstone (siltite?) and black chert.

Silt and sand suspended in drilling mud probably exist as matrix in gravels and represent < 5% of samples. Examination of bulk cuttings indicates in-situ volume of sand and finer materials is not more than 10%. Cuttings average 2-10mm, majority being angular to sub-angular gravels and broken up fragments of gravel and boulders. Minor percentage intact, rounded gravel.

- 0-18m. Gravels range from 2-20mm. Somewhat higher content of course sand and finer materials than in general description, perhaps 10%.
- 18-24m. Gravels and fragments 2-5mm. More complete fragmentation indicative of worn drill bit action as reported by driller.
- 24-96m. As general description, clasts range from 2-20mm. All samples uniform with respect to size distribution, lithology etc.

Exposure to Sun: well exposed on valley floor.

Vegetation: sparse grass and brush

Land Use: cattle grazing

γ -scan: 80-100 cps for cuttings (105-120 background in area)

Ground water: water standing in hole at 5m. Driller reports no significant water made, some mud lost to gravels.

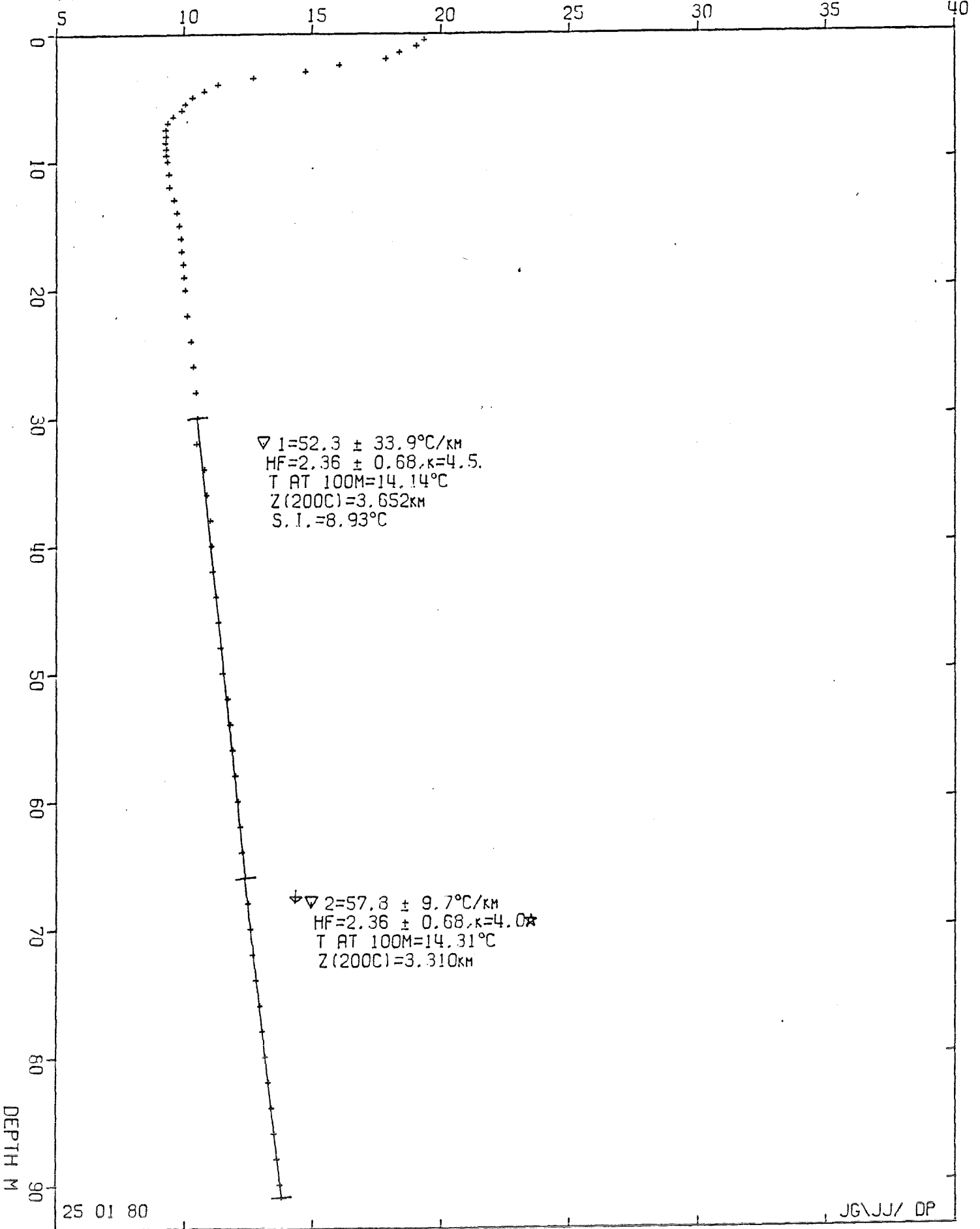
Comments: Rig shut down 14th and 15th with broken Kelly swivel.
 Water at ranch house 200 meters from hole drawing domestic water from 48m.

TUSCARORA, NV
2.5 KM S SPANISH RANCH
PROJ. 360 WELL 17

N. LAT 41.403, W. LONG 116.127

23 8 79

TEMPERATURE °C



25 01 80

PROJECT: TUSCARORA, NV

PROJ WELL	DA	MO	YR	WELL TITLE	EDITOR	URL DATE	LP	LI	IS7	IST
860	17	23	8 79	2.5 KM S SPANISH RANCH	JG\JJ/ BP	18 6 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
27.0000	16.5000	41.4026	116.1267	1737.4

J	SEG START	SEG END	CONDTVTY	& STD DEV.
1	30.000	65.000	0.000	0.000
2	66.000	91.000	4.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	17	23	8 79	0.500	19.350	99999.000	1
				1.000	19.040	-620.003	2
				1.500	18.370	-1339.995	3
				2.000	17.850	-1040.001	4
				2.500	16.040	-3620.003	5
				3.000	14.730	-2819.995	6
				3.500	12.690	-4080.002	7
				4.000	11.330	-2719.998	8
				4.500	10.760	-1140.003	9
				5.000	10.320	-879.997	10
860	17	23	8 79	5.500	10.050	-540.001	11
				6.000	9.920	-260.002	12
				6.500	9.550	-739.998	13
				7.000	9.350	-400.002	14
				7.500	9.270	-160.000	15
				8.000	9.200	20.000	16
				8.500	9.260	-40.001	17
				9.000	9.290	60.001	18
				9.500	9.300	20.000	19
				10.000	9.350	99.998	20
860	17	23	8 79	11.000	9.400	50.001	21
				12.000	9.420	19.999	22
				13.000	9.610	190.001	23
				14.000	9.710	100.000	24
				15.000	9.820	110.001	25
				16.000	9.870	-49.999	26
				17.000	9.910	40.001	27
				18.000	9.960	49.999	28
				19.000	10.000	40.001	29
				20.000	10.040	39.999	30
860	17	23	8 79	22.000	10.120	40.000	31
				24.000	10.260	70.000	32

		26.000	10.350	45.000	33
		28.000	10.450	50.000	34
		30.000	10.510	30.000	35
		32.000	10.470	-20.000	36
		34.000	10.770	150.000	37
		36.000	10.860	45.000	38
		38.000	10.990	65.001	39
		40.000	11.050	30.000	40
660	17 23 8 79	42.000	11.090	20.000	41
		44.000	11.230	70.001	42
		46.000	11.330	50.000	43
		48.000	11.420	44.999	44
		50.000	11.510	45.000	45
		52.000	11.700	95.000	46
		54.000	11.800	50.000	47
		56.000	11.890	45.000	48
		58.000	11.990	50.000	49
660	17 23 8 79	60.000	12.100	54.999	50
		62.000	12.170	35.000	51
		64.000	12.240	35.001	52
		66.000	12.360	59.999	53
		68.000	12.480	60.000	54
		70.000	12.570	45.000	55
		72.000	12.660	45.000	56
		74.000	12.790	65.000	57
		76.000	12.950	80.000	58
		78.000	13.050	50.000	59
660	17 23 8 79	80.000	13.160	55.000	60
		82.000	13.290	65.000	61
		84.000	13.410	60.000	62
		86.000	13.510	49.999	63
		88.000	13.610	50.000	64
		90.000	13.730	60.000	65
		91.000	13.790	59.999	66

SURFACE INTERCEPT FOR SEGMENT 1 = 8.934

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFU	CHF	T AT 100M	KM
1	30.000	10.510	66.000	12.360	4.514	0.000	52.333	33.874	2.353	0.678	14.135	3.652
2	59.000	12.360	91.000	13.790	4.000	0.500	57.847	9.723	2.363	0.678	14.311	3.310

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-17

Location: 41N 52E 33 NE 1/4 SE 1/4 SE 1/4

Elevation: 5700'

Date Drilled: 6-18-79

Method: rotary/mud

Depth (m) Description

General Description: Valley floor alluvium

Unconsolidated silt, sand and gravel to boulder size. Various quartzites, generally fine grained ranging in color from light silver gray to med. gray and light and dark gray banded appearance. Pale yellow, probably silica cemented quartzite and iron stained, yellow-brown siltite noticed at 60m. Dark gray siliceous mudstone, siltite and black micro-veined dark gray and solid black cherts. Gravels range from 2-14mm.

0-27m. 80% coarse sand or finer material, predominantly fine sand and silt. 20% gravel. Gravel content increases slightly with depth to about 30%. Clay content <10%.

27-66m. 85% coarse sand to pebble size gravel. Gravel 2mm. and larger is predominant. 15% finer than course sand - mostly silt. Little clay.

66-90m. 70% coarse sand and finer. 30% granule to pebble size gravel, some clay but probably <5%.

Exposure to sun: well exposed

Vegetation: sparse grass and brush

Land use: cattle

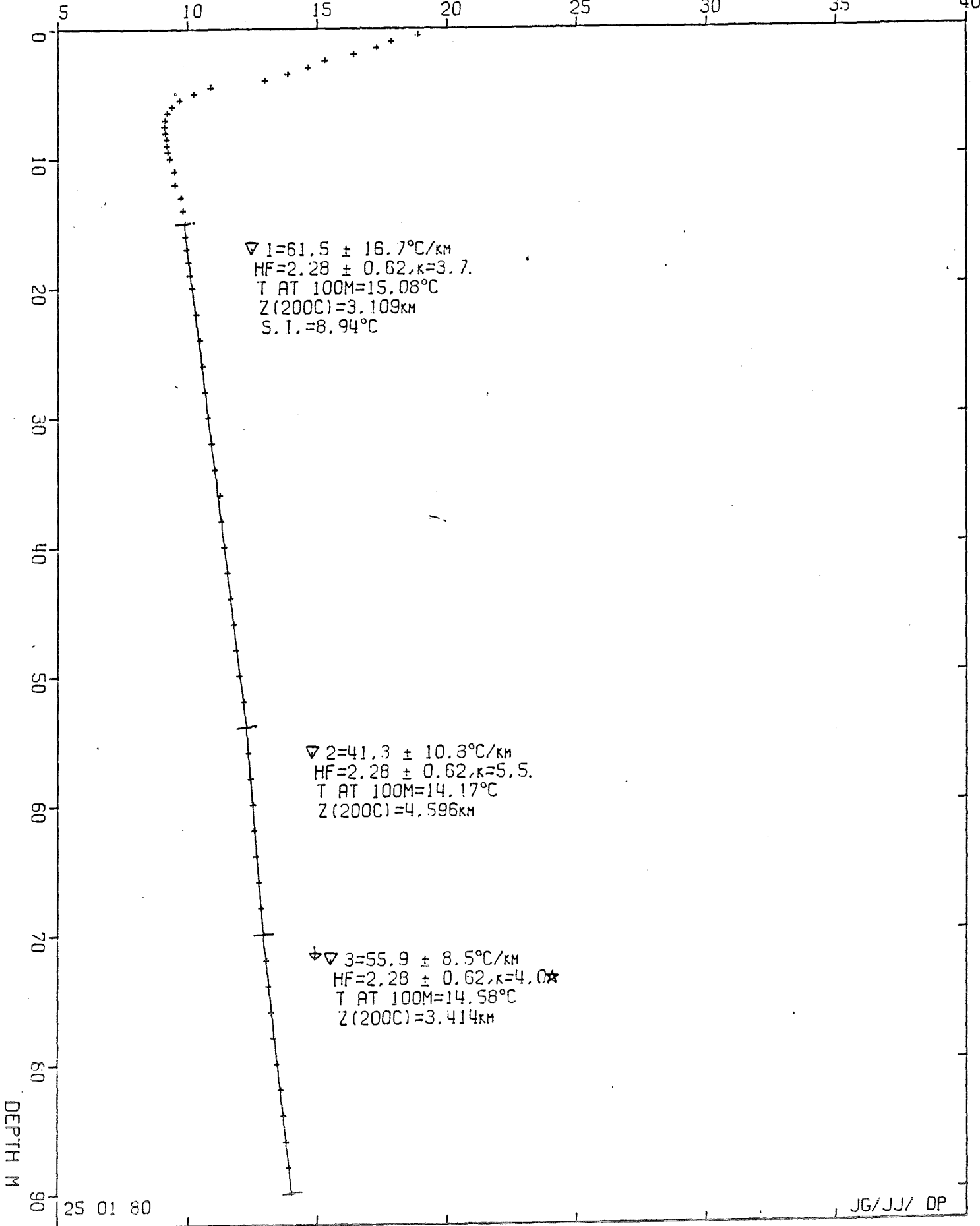
γ-scan: 100 cps.

Ground Water: apparently saturated below about 5m.

TUSCARORA, NV
4.8 KM SSW SPANISH RANCH
PROJ. 360 WELL 18 23 8 '79

N. LAT 41.385, W. LONG 116.146

TEMPERATURE °C



25 01 80

JG/JJ/ DP

GEGTHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARDRA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DPL DATE	LP	LI	ISZ	IST
860	18 23	8 79			4.8 KM SSW SPANISH RANCH	JG/JJZ/LE	19 6 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
23.9000	13.9500	41.3851	116.1458	1720.3

J	SEG START	SEG END	CONDIVITY & STD DEV.	
1	15.000	54.000	0.000	0.000
2	54.000	70.000	6.000	0.000
3	70.000	90.000	4.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DFG C/KM	SAMPLE NO.
860	18 23	8 79	0.500	12.870	99999.000	1		
			1.000	17.850	-2040.001	2		
			1.500	17.270	-1160.004	3		
			2.000	16.400	-1739.998	4		
			2.500	15.300	-2159.997	5		
			3.000	14.640	-1320.000	6		
			3.500	13.860	-1560.001	7		
			4.000	12.550	-1739.998	8		
			4.500	10.880	-4220.002	9		
			5.000	10.220	-1320.000	10		
860	18 23	8 79	5.500	9.670	-1100.002	11		
			6.000	9.380	-579.998	12		
			6.500	9.190	-380.001	13		
			7.000	9.110	-160.000	14		
			7.500	9.090	-40.001	15		
			8.000	9.120	60.001	16		
			8.500	9.170	99.998	17		
			9.000	9.180	20.000	18		
			9.500	9.230	100.002	19		
			10.000	9.290	119.999	20		
860	18 23	8 79	11.000	9.470	180.000	21		
			12.000	9.450	20.000	22		
			13.000	9.720	230.000	23		
			14.000	9.810	90.000	24		
			15.000	9.870	59.999	25		
			16.000	9.910	40.001	26		
			17.000	9.950	39.999	27		
			18.000	10.020	70.000	28		
			19.000	10.080	60.001	29		
			20.000	10.160	80.000	30		
860	18 23	8 79	22.000	10.320	80.000	31		

	24.000	10.460	70.000	32	
	26.000	10.560	50.000	33	
	28.000	10.650	45.000	34	
	30.000	10.760	54.999	35	
	32.000	10.900	70.001	36	
	28.000	10.650	42.500	37	
	30.000	10.760	54.999	38	
	32.000	10.900	70.001	39	
860	18 23 8 79	34.000	11.030	55.000	40
		36.000	11.230	100.000	41
		38.000	11.280	25.000	42
		40.000	11.380	50.000	43
		42.000	11.520	70.000	44
		44.000	11.650	65.001	45
		46.000	11.770	59.999	46
		48.000	11.860	45.000	47
		50.000	11.970	55.000	48
		52.000	12.150	90.000	49
860	18 23 8 79	54.000	12.250	50.000	50
		56.000	12.330	40.000	51
		58.000	12.430	49.999	52
		60.000	12.510	40.000	53
		62.000	12.550	20.000	54
		64.000	12.630	40.000	55
		66.000	12.740	55.000	56
		68.000	12.830	45.000	57
		70.000	12.930	49.999	58
		72.000	13.030	50.000	59
860	18 23 8 79	74.000	13.120	45.000	60
		76.000	13.220	50.000	61
		78.000	13.320	50.000	62
		80.000	13.440	59.999	63
		82.000	13.590	75.000	64
		84.000	13.700	55.000	65
		86.000	13.810	55.000	66
		88.000	13.920	54.999	67
		90.000	14.020	50.000	68

SURFACE INTERCEPT FOR SEGMENT 1 = 8.937

SEG	ZSTART	TSTART	ZEND	TEND	COND	&	DCON	GRADIENT	&	S.D.	HFU	&	DHF	T AT 100M	KF
1	18.000	9.870	54.000	12.250	3.710		0.000	51.459		16.701	2.280		0.618	15.077	3.109
2	54.000	12.250	70.000	12.930	5.517		0.000	41.333		10.763	2.280		0.618	14.170	4.596
3	70.000	12.930	90.000	14.020	4.000		0.500	55.944		8.455	2.280		0.618	14.579	3.414

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-18

Location: 40N 52E 5 SW 1/4 SE 1/4 SE 1/4

Elevation: 5644'

Date Drilled: 6-19-79

Method: claw, rotary/mud

Depth (m)

Description

General description: Valley floor alluvium

Unconsolidated clay, silt, sand and gravel to boulder size. Various fine-grained quartzites and dark gray siliceous mudstone, siltite and micro-veined gray chert and solid black chert as previously described in holes 860-16 and 860-17. Similar to these holes with exception that semi-consolidated sandy silt appears to be present in thin beds in this hole as well as existing as gravel matrix. Chunks up to 14mm. of this material can be found below 3 meters. Another marked contrast to holes 16 and 17 is the presence of volcanic lithic debris as mentioned below:

0-3m. As general description but with higher clay content indicative of soil horizons near surface. Clay <10%. Gravel and cuttings range from 2-14mm.

3-18m. 60% course sand and finer material. Minor portion clay, <5%. 35-40% gravel, 2-10mm. Lithology as general description.

18-24m. 80% course sand and finer. 20% gravels. Lithology as above, with exception that granules of fine-grained, silicic volcanic lithic debris make up minor fraction of gravels.

24-48m. 60% silt, clay and fine sand. 40% course sand and gravel of which 75%-85% is as general description and 15%-25% is volcanic lithic debris of rhyolitic welded tuffs and lavas.

48-54m. 80% course sand and finer. 20% gravel with ratio of sedimentary and volcanic lithic debris as above.

54-90m. Less than 5% fine sand and finer. Predominantly a 50-50 mixture of course sand and gravel with ratio of sedimentary and volcanic material as above.

Exposure to sun: well exposed

Vegetation: sparse grass and brush

Land Use: cattle grazing

γ -scan: 110 cps (background)

Ground water: apparently saturated below 4 meters.

TUSCARORA, NV
5.7 KM SW SPANISH RANCH

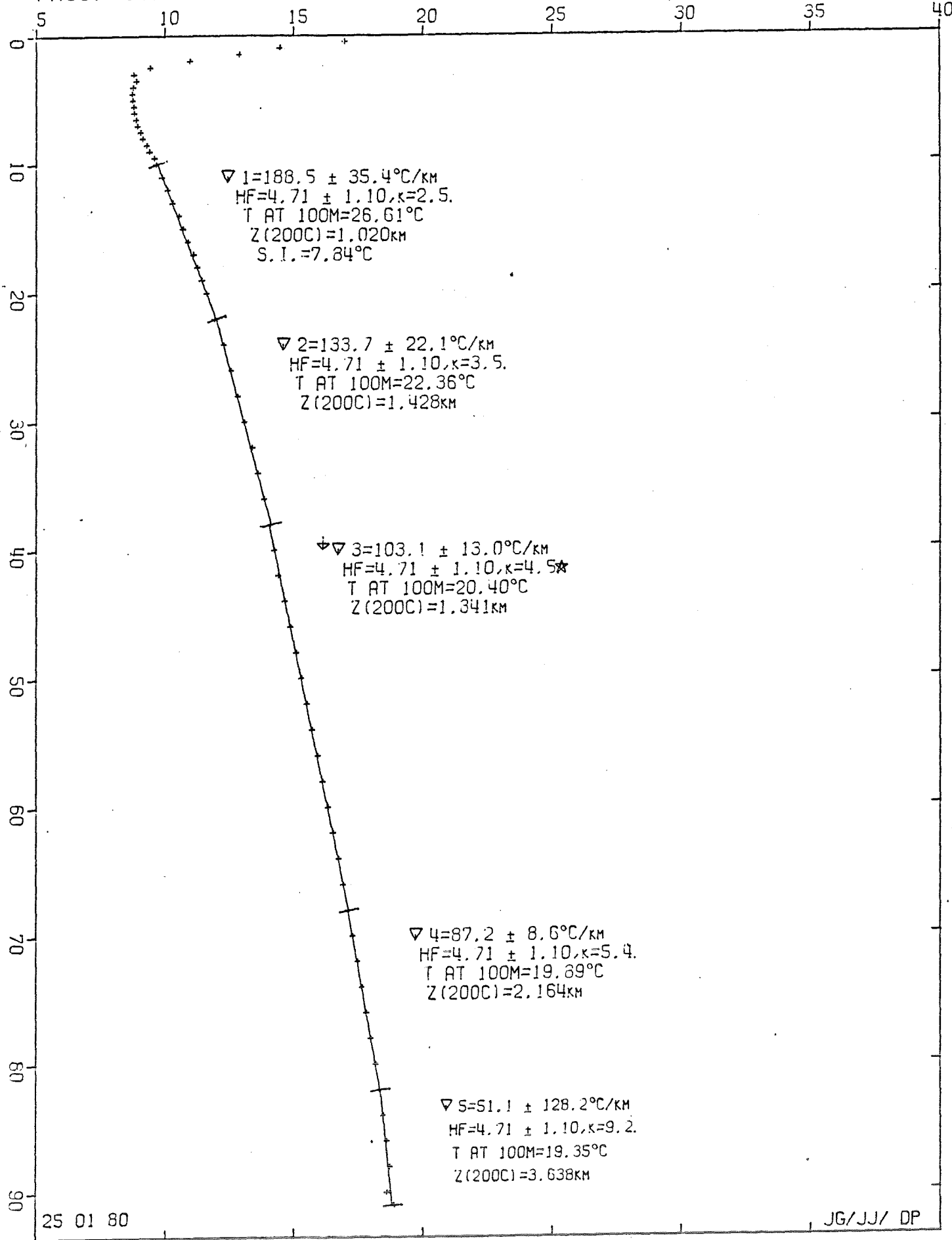
N. LAT 41.386, W. LONG 116.173

PROJ. 360

WELL 19

27 8 79

TEMPERATURE °C



PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR URL DATE LP LI ISZ IST
 860 19 27 8 79 5.7 KM SW SPANISH RANCH JG/JJ/ BP 26 6 79 1 0 1 1

YCM 24.0400 XCM 10.3500 N.LAT 41.3859 W.LONG 116.1727 ELEV 1713.0

J SEG START SEG END CONDUCTVY & STD DEV.
 1 19.000 22.000 0.000 0.000
 2 22.000 38.000 0.000 0.000
 3 38.000 68.000 4.500 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
 *** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

4 68.000 82.000 0.000 0.000
 5 82.000 91.000 0.000 0.000

PROJ	WELL	DA	MO	YR	DEPTH (F)	DCG C	DFG C/KM	SAMPLE NO.
860	19 27	8 79			0.500	16.990	95999.000	1
					1.000	14.460	-5059.998	2
					1.500	12.860	-3200.001	3
					2.000	10.960	-3800.000	4
					2.500	9.440	-3040.001	5
					3.000	8.800	-1279.999	6
					3.500	8.880	160.000	7
					4.000	8.760	-240.002	8
					4.500	8.730	-59.998	9
					5.000	8.750	40.001	10
860	19 27	8 79			5.500	8.780	59.998	11
					6.000	8.800	40.001	12
					6.500	8.870	139.999	13
					7.000	8.940	139.999	14
					7.500	9.040	200.001	15
					8.000	9.130	180.000	16
					8.500	9.290	320.000	17
					9.000	9.410	240.002	18
					9.500	9.580	340.000	19
					10.000	9.650	139.999	20
860	19 27	8 79			11.000	9.880	230.000	21
					12.000	10.090	209.999	22
					13.000	10.290	200.001	23
					14.000	10.540	250.000	24
					15.000	10.700	160.000	25
					16.000	10.880	160.000	26
					17.000	11.100	219.999	27
					18.000	11.230	130.001	28
					19.000	11.420	189.999	29

			20.000	11.590	170.000	30
860	19 27 8 79		22.000	11.910	160.001	31
			24.000	12.260	174.999	32
			26.000	12.550	145.000	33
			28.000	12.810	130.000	34
			30.000	13.070	130.000	35
			32.000	13.360	155.000	36
			34.000	13.600	110.000	37
			36.000	13.840	120.000	38
			38.000	14.070	115.001	39
			40.000	14.230	90.000	40
860	19 27 8 79		42.000	14.390	80.000	41
			44.000	14.650	130.000	42
			46.000	14.860	105.000	43
			48.000	15.080	110.001	44
			50.000	15.280	99.999	45
			52.000	15.500	110.001	46
			54.000	15.700	99.999	47
			56.000	15.920	110.000	48
			58.000	16.110	94.999	49
			60.000	16.320	105.001	50
860	19 27 8 79		62.000	16.510	94.999	51
			64.000	16.730	110.001	52
			66.000	16.910	90.000	53
			68.000	17.100	94.999	54
			70.000	17.280	90.000	55
			72.000	17.480	100.000	56
			74.000	17.650	84.999	57
			75.000	17.820	85.001	58
			76.000	17.980	80.000	59
			80.000	18.170	94.999	60
860	19 27 8 79		82.000	18.320	75.001	61
			84.000	18.470	74.999	62
			86.000	18.610	70.000	63
			88.000	18.730	60.001	64
			90.000	18.810	-60.001	65
			91.000	18.890	280.003	66

SURFACE INTERCEPT FOR SEGMENT 1 = 7.836

SEG	ZSTART	TSTART	ZEND	TEND	COND	BCON	GRADIENT	S.D.	HFD	CHF	T AT 100M	KM
1	10.000	9.650	22.000	11.910	2.497	0.000	168.466	35.435	4.706	1.102	26.610	1.020
2	22.000	11.910	38.000	14.070	3.519	0.000	133.749	22.079	4.706	1.102	22.362	1.428
3	38.000	14.070	68.000	17.100	4.500	0.000	107.133	13.034	4.706	1.102	20.400	1.841
PRECEDING SEGMENT USED FOR EXTRAPOLATION												
4	68.000	17.100	82.000	16.320	5.394	0.000	87.247	8.892	4.706	1.102	19.890	2.164

SEG	Z START	I START	Z END	TEND	COND	CCON	GRADE	S.D.	FFU	DHF	T AT 100M	KM
5	80.000	18.320	91.000	18.890	9.218	0.000	91.855	128.221	4.704	1.102	19.349	3.638

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-19

Location: 40N 52E 6 NW 1/4 SE 1/4 SW 1/4

Elevation: 5620'

Date Drilled: 6-26-79

Method: rotary/mud

Depth (m)

Description

General Description: Consolidated but sub-lithified highly friable light tan sandy silt. Highly porous. Minor amounts of gravel, generally granule size, some small pebbles. Gravels and coarse sands sub-angular to sub-rounded. Approximately equal mixture of sedimentary and volcanic lithic debris as is well described in reports 860-20 and 21. Essentially a broad variety of siliceous rocks including: sandstones, siltstones, some claystone; argillites (very siliceous), quartzites and siltites; rhyo-dacitic range volcanic flow rocks, tuffs, welded tuffs. Volcanics light, contain feldspar, hornblende, biotite and pyroxene phenocrysts. Tuffs generally white to light tan, groundmass generally ash (stoney) but some glassy. Crystals generally feldspar, some quartz and lithic lapilli generally sedimentary material in the tuffs.

0-3m. Unconsolidated clay, silt, sand and gravel up to medium sized cobbles. Lithology as above. Sorted as follows: 20% gravel, 20% sand, 40% silt and 20% clay. Soil horizons.

3-54m. Less than 5% gravel of granule size, 10% coarse sand, 25% fine sand, 50% silt, 10% clay. Material large enough to describe accurately as general description.

54-90m. As 3-54m., very slight color difference from light tan to slightly darker, perhaps due to moisture content.

Sun Exposure: good

Vegetation: sparse grass and brush

Land use: cattle grazing

γ-scan: 110 cps (background)

Ground water: Driller reports no water lost or gained in significant amounts. Likely saturated below 5m. 1/4 mile from Owyhee River.

TUSCARORA, NV
4.9 KM SW SPANISH RANCH

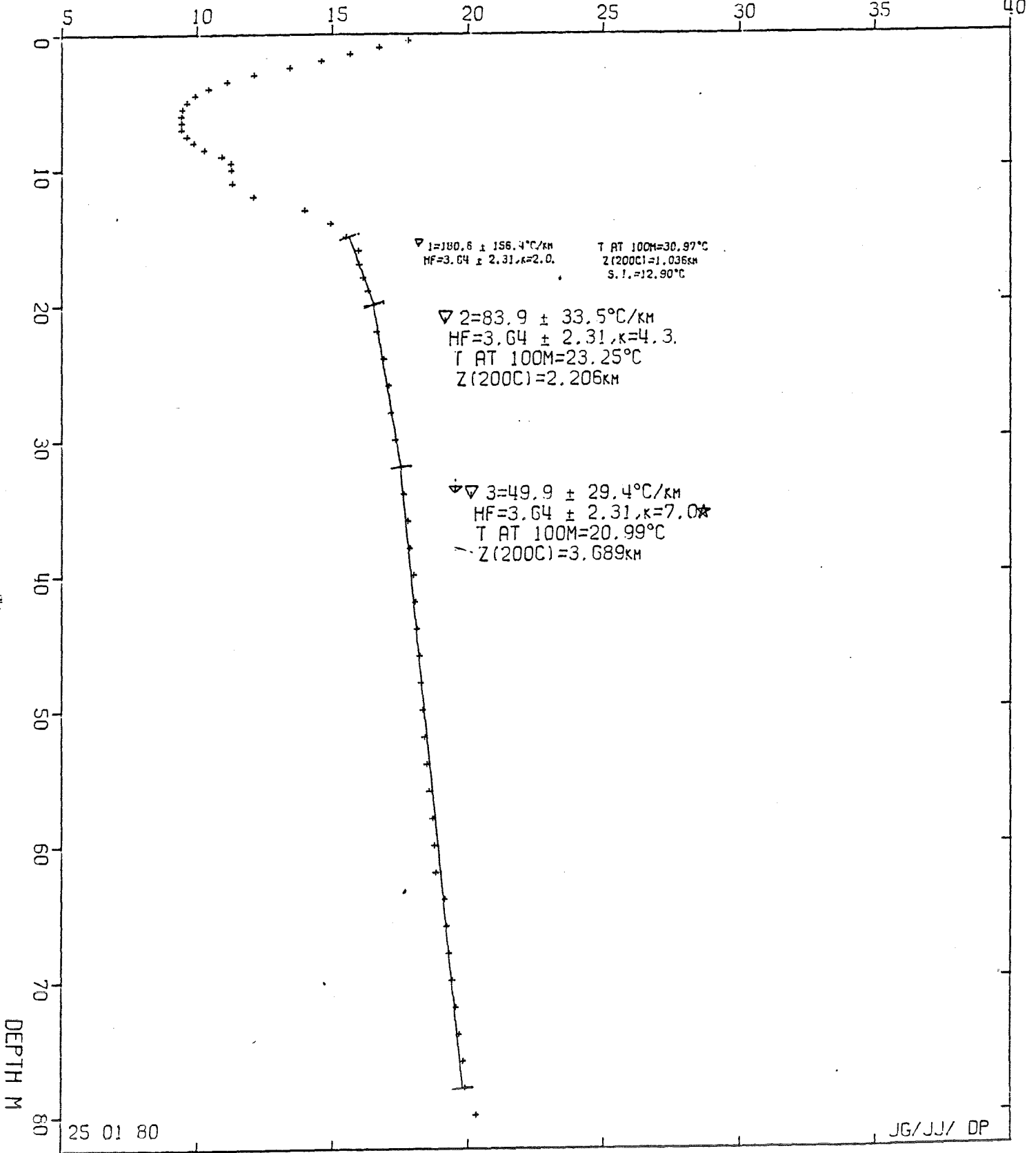
N. LAT 41.402; W. LONG 116.177

PROJ. 860

WELL 20

23 8 79

TEMPERATURE °C



GEOTHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860		20	23	8	79	4.9 KM SW SPANISH RANCH	JG/JJ/DE	24	6	79	1 0 1 1

YCM	XCM	N.LAT	W.LONG	ELEV
26.9000	9.8000	41.4021	118.1768	1702.9

J	SEG	START	SEG	END	CONDIVITY	& STC	DEV.
1		15.000		20.000	0.000		0.000
2		20.000		32.000	0.000		0.000
3		32.000		78.000	7.000		0.500

SPECIFIED CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.	
860		20	23	8	79	0.500	17.820	9999.000	1
						1.000	16.720	-2200.005	2
						1.500	15.640	-2159.996	3
						2.000	14.600	-2080.002	4
						2.500	13.430	-2340.000	5
						3.000	12.090	-2600.000	6
						3.500	11.110	-1959.999	7
						4.000	10.430	-1300.001	8
						4.500	9.920	-1020.000	9
						5.000	9.620	-590.999	10
860		20	23	8	79	5.500	9.450	-340.000	11
						6.000	9.420	-60.001	12
						6.500	9.420	0.000	13
						7.000	9.420	0.000	14
						7.500	9.620	400.002	15
						8.000	9.870	500.000	16
						8.500	10.260	779.999	17
						9.000	10.900	1280.002	18
						9.500	11.250	700.001	19
						10.000	11.250	0.000	20
860		20	23	8	79	11.000	11.300	49.999	21
						12.000	12.060	760.000	22
						13.000	13.500	1920.000	23
						14.000	14.930	949.999	24
						15.000	15.500	570.002	25
						16.000	15.950	449.999	26
						17.000	15.980	30.001	27
						18.000	16.120	139.999	28
						19.000	16.310	189.999	29
						20.000	16.520	209.999	30
						22.000	16.630	55.000	31

	24.000	16.890	130.001	32
	26.000	17.070	90.000	33
	28.000	17.150	39.999	34
	30.000	17.320	85.001	35
	32.000	17.540	109.999	36
	34.000	17.630	45.000	37
	36.000	17.770	70.000	38
	38.000	17.850	40.001	39
	40.000	17.990	70.000	40
860 20 23 8 79	42.000	18.050	30.001	41
	44.000	18.120	35.000	42
	46.000	18.230	55.000	43
	48.000	18.270	19.999	44
	50.000	18.340	35.000	45
	52.000	18.420	40.001	46
	54.000	18.500	40.001	47
	56.000	18.580	39.999	48
	58.000	18.710	65.001	49
860 20 23 8 79	60.000	18.760	25.000	50
	62.000	18.810	25.000	51
	64.000	19.140	165.001	52
	66.000	19.220	39.999	53
	68.000	19.300	40.001	54
	70.000	19.420	59.999	55
	72.000	19.550	65.001	56
	74.000	19.660	55.000	57
	76.000	19.810	74.999	58
	78.000	19.890	40.001	59
	80.000	20.290	199.999	60

SURFACE INTERCEPT FOR SEGMENT 1 = 12.903

SEG	ZSTART	TSTART	ZEND	TEND	COND	BOON	GRADIENT	S.D.	FFU	CHF	T AT 100M	KN
1	10.000	15.500	20.000	16.520	2.015	0.000	180.569	186.416	3.639	2.306	30.965	1.036
2	20.000	16.520	32.000	17.540	4.336	0.000	83.925	33.487	3.639	2.306	23.247	2.206
3	32.000	17.540	78.000	19.890	7.000	0.500	49.843	29.373	3.639	2.306	20.987	3.689

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-20

Location: 41N 52E 31 NW 1/4 SE 1/4 SW 1/4

Elevation: 5590'

Date Drilled: 6-24-79

Method: Rotary/foam

Depth (m)

Description

General Description: Alluvial or stream terrace deposit.

Unconsolidated silt, sand and sedementary and volcanic gravels from granule to large pebble in size. Gravels well rounded, somewhat elongate and flat.

50% sedimentary debris includes wide variety of quartzites from well sorted very fine grained white qtzite to med. gray and Fe-stained moderately sorted med. grained varieties with sub-angular grains. Also assorted siltstones, fine grained and clean as well as slightly sandy varieties, light gray to orange-brown in color, also white siltstone, friable and apparently reworked ash or tuff. Also present are sandstones, fine grained and well sorted as well as moderately sorted med. grained varieties. Variety of grain angularities and colors. Med. to dark gray siltites and siliceous argillites. Gray-green and light to med. gray chert, some with black micro-veining. Some silty claystones.

50% volcanic debris includes variety of lava, tuffs, ignimbrites and vitrophyric materials. Med. to dark gray pyroxene, hornblende and biotite bearing andesites. Pink and gray pyroxene bearing rhyolite, some aphanitic, stony groundmass. Various aphanitic lava, light to med. gray, some glassy. Possible latite, dacite, andesite. Lithic tuffs, some welded, bearing volcanic and sedimentary fragments. White pumaceous ash tuffs and vitric tuffs. Med. gray semi-transparent vitrophyre. Plag. in some lavas altering to pale green clay. Other feldspars altering to white clays. Lithic tuff altering orange-brown. Some tuffs silicified.

0-6m.	10% gravel, some up to 10mm. 40% course sand 50% finer than course sand - little clay.
6-9m.	75% gravel, up to 4cm., average 8mm 10% course sand 15% finer than course sand, little clay.
9-12m.	10% gravel, mostly granule size, some to 12mm 10% course sand 75% finer than course sand 5% clay
12-27m.	30% gravel, some up to 5mm 50% course sand 20% finer than course sand
27-30m.	As 6-9m.

Project: Tuscarora
Hole 860-20

Location: 41N 52E 31 NW 1/4 SE 1/4 SW 1/4

Elevation: 5590'

Date Drilled: 6-24-79

Method: Rotary/foam

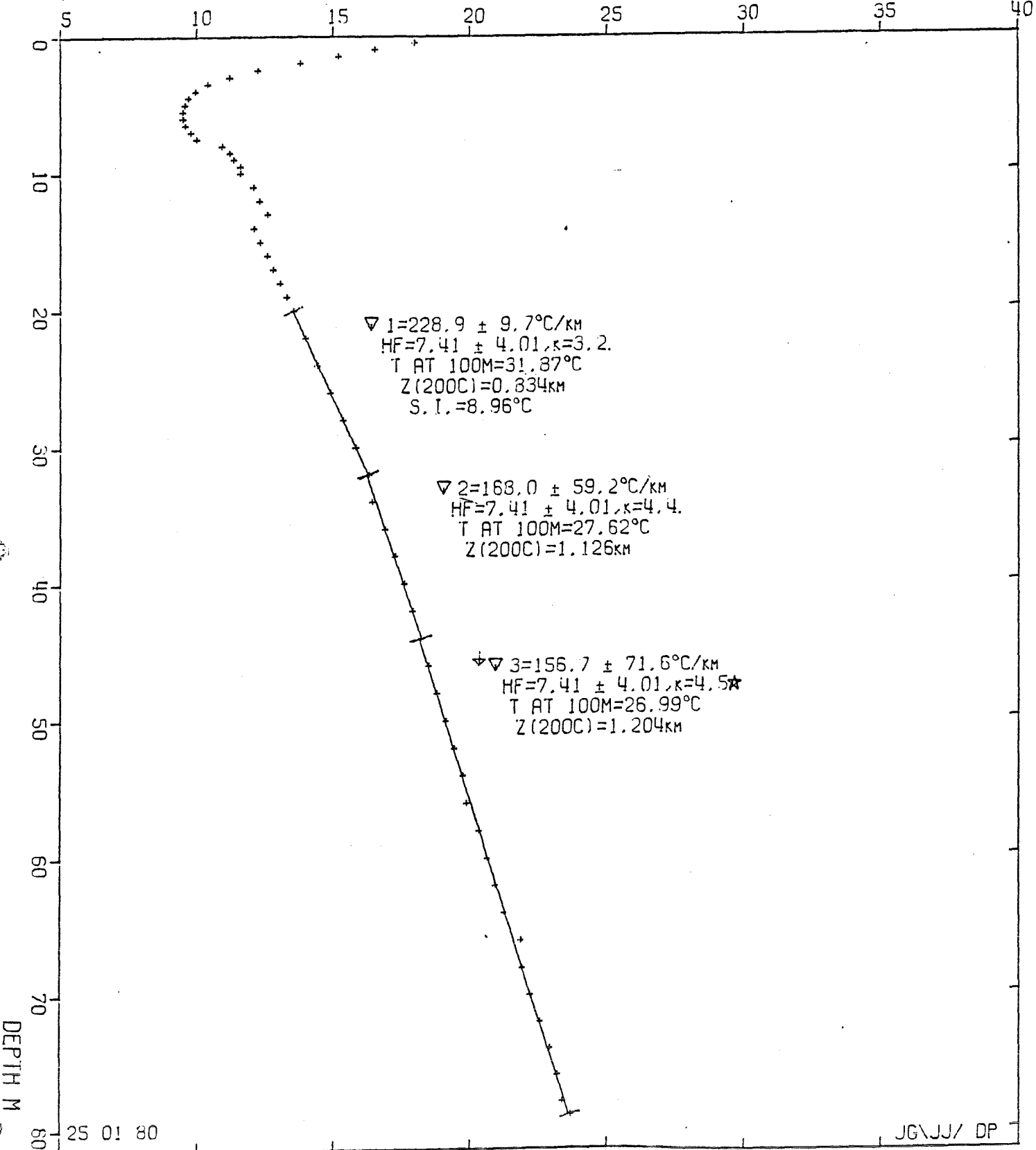
Depth (m)	Description
30-36m.	As 12-27m.
36-57m.	90% equal mixture of gravel up to 14mm and course sand. 10% or less finer than course sand.
57-78.9m.	40% gravel 40% course sand 20% finer than course sand
	Gravel courses towards bottom hole from 20mm. maximum size to 5cm. at bottom hole. Between 57 and 78.9m.
	Exposure to sun: well exposed except late afternoon and evening - at base of 20-30° slope rising to west, sage provides some shade.
	Vegetation: sparse grass and tall sage brush
	Land use: cattle grazing
	γ-scan: 125-145 cps (background)
	Ground water: Driller reported aquifer at 9m. making 5 gal/min and another at 50m. making about 40 gal/min. Owyhee river 1/8 mile to east.

TUSCARORA, NV
4.5 KM WSW SPANISH RANCH
PROJ. 860 WELL 21

N.LAT 41.419, W.LONG 116.180

23 8 79

TEMPERATURE °C



25 01 80

JG\JJ/ DP

GEOTHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25.01.60

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860	21 23	8 79			4.5 KM WSW SPANISH RANCH	JCNJJZ DF	26 6 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	ELV
29.9000	9.4000	41.4190	116.1797	1703.8

J	SEC START	SEC END	CONDIVITY & STD DEV.	
1	20.000	32.000	0.000	0.000
2	32.000	44.000	0.000	0.000
3	44.000	79.000	4.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	21 23	8 79	0.500	17.990	9999.000	1		
			1.000	16.520	-2540.002	2		
			1.500	15.200	-2639.995	3		
			2.000	13.810	-2779.999	4		
			2.500	12.240	-3140.000	5		
			3.000	11.220	-2040.001	6		
			3.500	10.410	-1619.999	7		
			4.000	9.950	-920.002	8		
			4.500	9.690	-520.000	9		
			5.000	9.570	-239.998	10		
860	21 23	8 79	5.500	9.500	-139.999	11		
			6.000	9.500	0.000	12		
			6.500	9.580	160.000	13		
			7.000	9.790	419.992	14		
			7.500	10.010	435.999	15		
			8.000	10.930	1840.000	16		
			8.500	11.220	590.002	17		
			9.000	11.360	279.999	18		
			9.500	11.610	500.000	19		
			10.000	11.610	0.000	20		
860	21 23	8 79	11.000	12.070	460.001	21		
			12.000	12.300	230.000	22		
			13.000	12.590	269.999	23		
			14.000	12.100	-490.000	24		
			15.000	12.330	230.001	25		
			16.000	12.580	250.000	26		
			17.000	12.800	219.999	27		
			18.000	13.050	250.000	28		
			19.000	13.310	260.000	29		
			20.000	13.550	240.000	30		
860	21 23	8 79	22.000	14.000	225.000	31		

	24.000	14.430	214.999	32
	26.000	14.910	240.001	33
	28.000	15.360	224.999	34
	30.000	15.820	230.000	35
	32.000	16.300	240.000	36
	34.000	16.420	59.999	37
	36.000	16.900	240.000	38
	38.000	17.260	180.000	39
	40.000	17.600	170.000	40
860 21 23 8 79	42.000	17.910	155.001	41
	44.000	18.210	150.000	42
	46.000	18.500	145.000	43
	48.000	18.810	154.999	44
	50.000	19.130	160.000	45
	52.000	19.440	155.001	46
	54.000	19.750	155.001	47
	56.000	19.870	59.999	48
	58.000	20.320	225.000	49
860 21 23 8 79	60.000	20.630	154.999	50
	62.000	20.940	155.001	51
	64.000	21.250	155.001	52
	66.000	21.870	309.999	53
	68.000	21.920	25.000	54
	70.000	22.220	150.000	55
	72.000	22.560	170.000	56
	74.000	22.930	184.999	57
	76.000	23.190	130.001	58
	78.000	23.380	94.999	59
	79.000	23.700	320.000	60

SURFACE INTERCEPT FOR SEGMENT 1 = 6.958

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFU	DHF	T AT 100M	KF
1	20.000	13.550	32.000	16.300	3.237	0.000	228.924	9.708	7.410	4.007	31.867	0.834
2	32.000	16.300	44.000	18.210	4.410	0.000	168.642	59.150	7.410	4.007	27.620	1.126
3	44.000	18.210	79.000	23.700	4.500	0.000	184.708	71.634	7.410	4.007	26.991	1.204

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-21

Location: 41N 52E 30 SW 1/4 NW 1/4 SW 1/4

Elevation: 5590'Date Drilled: 6-25, 26-79Method: rotary/foam to 240'
rotary/mud to T. D.

Depth (m)

Description

General Description: As hole 860-20 with exception that from 75-90m. about 15% of sample becomes pink-brown rhyolite and 10% a white ash tuff weathered chalkey and clayey. Above 75m. samples are equal mixture of volcanic and sedimentary materials of a wide variety, as hole 860-20.

0-3m. 10% gravel - mostly granule size
30% course sand
60% finer than course sand, some organic rich brown clay indicative of soil horizon.

3-6m. 45% gravel, granule up to 10mm
45% course sand
10% finer than course sand

6-9m. 20% gravel, up to 14mm
50% course sand
30% finer than course sand

9-18m. 90% gravel, up to 18mm
10% finer than 2mm

18-90m. 70% gravel, some up to 4cm
25% course sand
5% finer than course sand

Exposure to sun: Good except evening, located at base of 20-30° slope rising to west and shaded somewhat by large sage brush.

Vegetation: sparse grass and fairly thick, large brush

γ-scan: 180 cps (background)

Land use: cattle grazing

Ground water: driller reports aquifer at 9m. makes 30 gal/min. Water stands in hole at 3.6m. Owyhee River 1/4 mile to east.

TUSCARORA, NV

N.LAT 41.471, W.LONG 116.059

1.1 KM ESE BM 6030

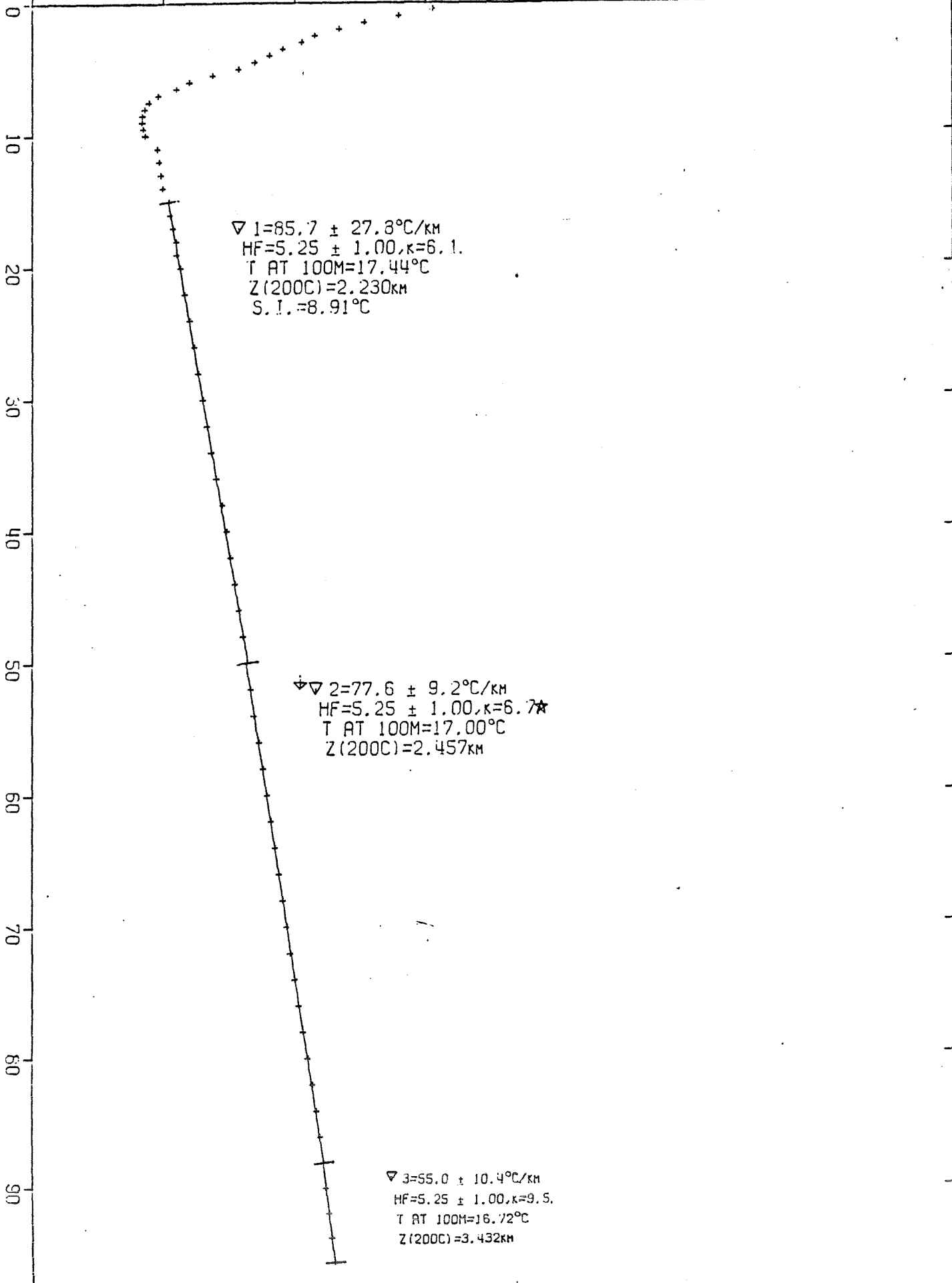
PROJ. 360

WELL 23

26 8 79

TEMPERATURE °C

5 10 15 20 25 30 35 40



DEPTH M

GEOCHEMICAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARORA, NV

PFOJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	PRL DATE	LP	LI	ISZ	IST
860		23	26	8 79	1.1 KM ESE BM 6030	JG/JJ/ BF	3 6 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	PLV
39.1000	21.5000	41.4710	116.0891	1889.E

J	SEG START	SEG END	CONDIVITY & STD DEV.	
1	15.000	50.000	0.000	0.000
2	50.000	88.000	6.700	0.560
PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS				
*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***				
3	88.000	96.000	0.000	0.000

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
 *** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PFOJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		23	26	8 79	0.500	20.260	9999.000	1
					1.000	18.960	-2599.999	2
					1.500	17.640	-2640.000	3
					2.000	16.690	-1900.002	4
					2.500	15.750	-1879.997	5
					3.000	15.260	-980.003	6
					3.500	14.530	-1459.999	7
					4.000	14.030	-1000.000	8
					4.500	13.460	-1140.000	9
					5.000	12.850	-1220.001	10
860		23	26	8 79	5.500	11.850	-2000.000	11
					6.000	10.980	-1739.998	12
					6.500	10.500	-959.999	13
					7.000	9.800	-1400.002	14
					7.500	9.450	-700.001	15
					8.000	9.280	-340.000	16
					8.500	9.200	-160.000	17
					9.000	9.190	-20.000	18
					9.500	9.230	80.002	19
					10.000	9.300	139.999	20
860		23	26	8 79	11.000	9.760	459.999	21
					12.000	9.830	70.002	22
					13.000	9.900	70.000	23
					14.000	9.950	49.999	24
					15.000	10.210	260.000	25
					16.000	10.240	30.001	26
					17.000	10.350	109.999	27
					18.000	10.480	130.001	28
					19.000	10.500	20.000	29
					20.000	10.640	139.999	30
860		23	26	8 79	22.000	10.800	80.000	31

	24.000	10.990	95.000	32
	26.000	11.160	85.000	33
	28.000	11.320	80.000	34
	30.000	11.490	85.000	35
	32.000	11.640	75.000	36
	34.000	11.800	80.000	37
	36.000	11.990	95.000	38
	38.000	12.220	115.000	39
860	40.000	12.380	80.000	40
23 26 8 79	42.000	12.530	75.000	41
	44.000	12.700	85.000	42
	46.000	12.850	75.000	43
	48.000	13.000	75.001	44
	50.000	13.150	75.000	45
	52.000	13.300	75.000	46
	54.000	13.420	59.999	47
	56.000	13.610	95.000	48
	58.000	13.760	75.000	49
860	60.000	13.920	80.000	50
23 26 8 79	62.000	14.060	70.001	51
	64.000	14.220	80.000	52
	66.000	14.360	70.000	53
	68.000	14.510	75.000	54
	70.000	14.650	70.001	55
	72.000	14.800	75.000	56
	74.000	14.960	80.000	57
	76.000	15.130	85.000	58
	78.000	15.290	80.000	59
860	80.000	15.470	90.000	60
23 26 8 79	82.000	15.650	90.000	61
	84.000	15.810	80.000	62
	86.000	15.940	65.000	63
	88.000	16.070	65.001	64
	90.000	16.150	59.999	65
	92.000	16.280	65.001	66
	94.000	16.390	55.000	67
	96.000	16.500	55.000	68
	98.000	16.560	29.999	69

SURFACE INTERCEPT FOR SEGMENT 1 = 8.912

SEG	ZSTART	TSTART	ZEND	TEND	COND	%	BCON	GRADIENT	%	S.D.	HFU	%	CHF	T AT 100M	KM
1	15.000	10.210	50.000	13.150	6.122		0.000	85.716		27.774	5.248		1.004	17.43E	2.230
2	50.000	13.150	88.000	16.070	6.700		0.500	77.648		9.197	5.248		1.004	17.002	2.457
PRECEDING SLOPES USED FOR EXTRAPOLATION															
3	88.000	16.070	96.000	16.500	8.542		0.000	54.998		10.409	5.248		1.004	16.720	3.432

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-23

Location: 41N 52E 11 SW 1/4 NE 1/4 NE 1/4

Elevation: 6200'

Date Drilled: 6-2, 3-79

Method: mud

Depth (m)

Description

0-2m.	Unconsolidated silt, sand, organic rich clay and rounded quartzite pebbles, cobbles and small boulders. Silver gray quartzite weathering locally to tan, orange-brown. Colluvium.
2-10m.	Silver gray quartzite gravel and boulders. Minor content quartz sand and granule gravel size argillite fragments. Slightly calcareous apparently due to calcareous argillite.
10-96m.	Dark gray, sandy, calcareous argillite. Fine pyrite and pyrite veins in some fragments. May be interbeds of quartzite (or contamination from uphole). Also minor content of cemented, coarse quartz arenite. Composition of argillite varies between more sandy and more clay rich.
	Sun Exposure: well exposed
	Vegetation: sparse grass and brush
	γ -scan: background (110 cps)
	Land use: cattle grazing
	Ground water: drilled with mud-difficult to tell. Little mud lost. Driller reports clay causing sticking. Expansive.

TUSCARORA, NV
2.9 KM SE CHICKEN SUMMIT

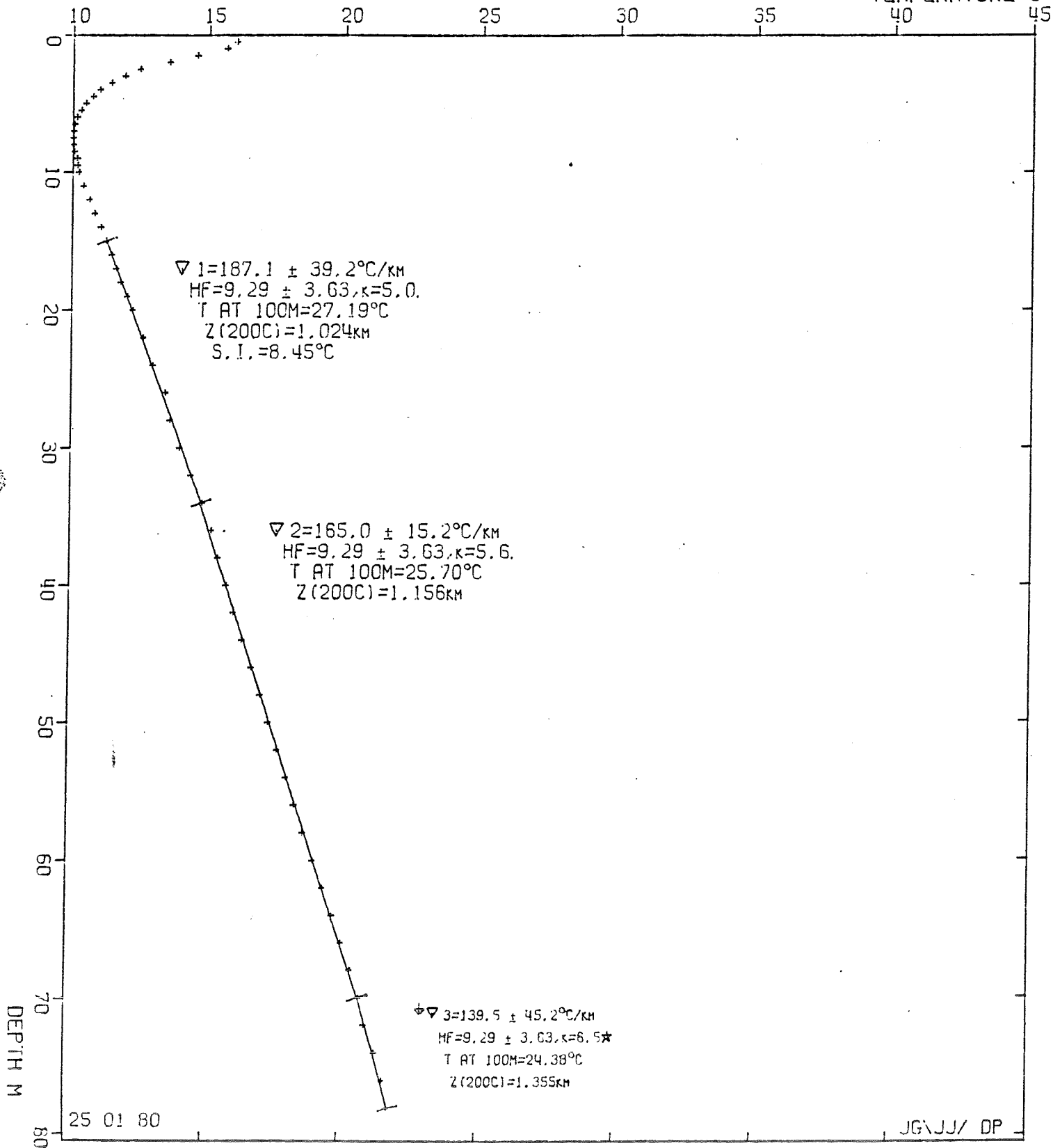
N. LAT 41.507; W. LONG 116.092

PROJ. 860

WELL 25

23 8 79

TEMPERATURE °C



GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25.01 #0
PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE ZONE LRL DATE LP LI ISZ IST
 660 25 23 8 79 2.9 KM SE CHICKEN SUMMIT 20110F 31 5 78 1 0 1 1

YCM XCM N.LAT W.LONG ELEV
 1.2000 21.1000 41.5068 116.0921 1928.2

J SEG START SEG END CONDTVY & STD DEV.
 1 15.000 34.000 0.000 0.000
 2 34.000 70.000 0.000 0.000
 3 70.000 78.000 6.500 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS.

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
660	25	23	8	79	0.500	16.000	99999.000	1
					1.000	15.840	-720.001	2
					1.500	14.540	-2260.001	3
					2.000	13.510	-2060.001	4
					2.500	12.440	-2140.000	5
					3.000	11.890	-1099.999	6
					3.500	11.390	-1000.000	7
					4.000	10.980	-820.000	8
					4.500	10.720	-520.000	9
					5.000	10.460	-520.000	10
660	25	23	8	79	5.500	10.290	-340.000	11
					6.000	10.140	-299.999	12
					6.500	10.060	-160.000	13
					7.000	10.020	-80.002	14
					7.500	10.010	-20.000	15
					8.000	10.020	20.000	16
					8.500	10.050	60.001	17
					9.000	10.160	220.001	18
					9.500	10.170	19.997	19
					10.000	10.210	80.002	20
660	25	23	8	79	11.000	10.390	180.000	21
					12.000	10.610	219.999	22
					13.000	10.810	260.001	23
					14.000	11.040	230.000	24
					15.000	11.230	190.001	25
					16.000	11.440	209.999	26
					17.000	11.610	170.000	27
					18.000	11.780	170.000	28
					19.000	12.020	240.000	29
					20.000	12.220	200.001	30
					22.000	12.620	200.000	31

		24.000	12.980	180.000	32
		26.000	13.440	230.000	33
		28.000	13.620	90.000	34
		30.000	13.990	185.000	35
		32.000	14.410	210.000	36
		34.000	14.840	214.999	37
		36.000	15.200	180.000	38
		38.000	15.450	125.000	39
		40.000	15.750	150.001	40
860	25 23 8 79	42.000	16.030	139.999	41
		44.000	16.360	164.999	42
		46.000	16.710	175.001	43
		48.000	17.050	170.000	44
		50.000	17.350	150.000	45
		52.000	17.650	170.000	46
		54.000	18.030	170.000	47
		56.000	18.340	154.999	48
		58.000	18.670	155.001	49
860	25 23 8 79	60.000	19.030	180.000	50
		62.000	19.400	184.999	51
		64.000	19.750	175.001	52
		66.000	20.090	169.998	53
		68.000	20.420	155.001	54
		70.000	20.750	165.001	55
		72.000	20.950	99.998	56
		74.000	21.330	190.001	57
		76.000	21.620	145.000	58
		78.000	21.810	94.999	59

SURFACE INTERCEPT FOR SFMT 1 = 8.454

SFC	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	10.000	11.230	34.000	14.840	4.968	0.000	187.055	39.164	5.293	3.634	27.166	1.024
2	34.000	14.840	70.000	20.750	5.632	0.000	184.999	15.195	5.293	3.634	25.700	1.156
3	70.000	20.750	78.000	21.810	6.500	0.500	179.996	45.170	5.293	3.634	24.875	1.355

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-25

Location: 42N 52E 26 SE 1/4 NW 1/4 SE 1/4

Elevation: 6300'

Date Drilled: 5- 30, 31 -79

Method: mud (bentonite)

Depth (m)

Description

0-3m.	Soil horizon. Brown to black organic-rich silty, sandy clay. Clay ~50%.
3-6m.	Light gray silty clay. Probably weathered andesite of below.
6-76m.	Light to medium gray andesite lava flow. Medium grain at the top 6 meters becoming finer grain below. Veins and fracture coatings of very fine grain pyrite. Medium grain variety shows black orthopyroxene and biotite in small amounts, <10%. Hard and soft layering .5-1.5 meters thick, probably resulting from laminar flow. Overall rock porosity low. Some pyrites altering to pseudomorphs of limonite.
	<p>γ radiation: ~150 cps</p> <p>Sun exposure: bottom of NE by E trending valley. Sage & grass covering ground.</p> <p>Remarks: The abundance of very local surface water implies saturated rocks to within a half a meter of the surface. No identifiable aquifers or fracture zones.</p>

1.9 KM SE CHICKEN SUMMIT

N. LAT 41.509 W. LONG 116.105

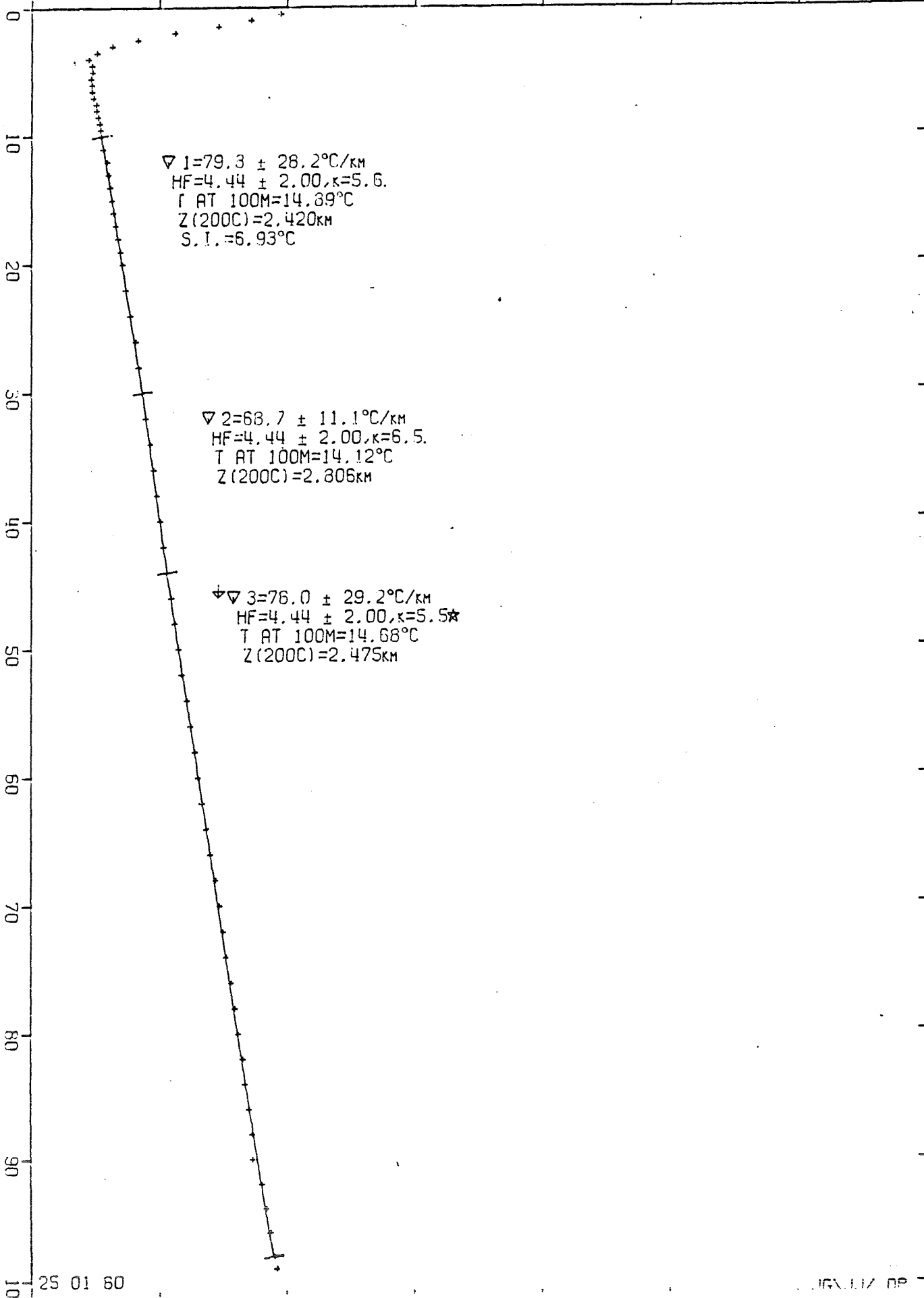
PROJ. 360

WELL 26

23 3 79

TEMPERATURE °C

5 10 15 20 25 30 35 40



DEPTH M

25 01 80

16X.117 DP

GEO THERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25. 01 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR ERL DATE LP LI ISZ IST
 860 26 23 8 79 1.9 KM SE CHICKEN SUMMIT JGA/JJ/CF 26 5 79 1 0 1 1

YCM XCM N.LAT W.LONG ELEV
 1.6000 18.9000 41.5090 116.1085 1914.1

J	SEG START	SEG END	CONDVTY & STD DEV.	
1	10.000	30.000	0.000	0.000
2	30.000	44.000	0.000	0.000
3	44.000	98.000	5.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DFG C	DEG C/KM	SAMPLE NO.
860	26 23	8 79	0.500	14.740	99999.000			1
			1.000	13.590	-2340.000			2
			1.500	12.300	-2579.998			3
			2.000	10.600	-3400.002			4
			2.500	9.140	-2919.999			5
			3.000	8.140	-2000.000			6
			3.500	7.550	-1180.000			7
			4.000	7.220	-660.000			8
			4.500	7.360	280.001			9
860	26 23	8 79	5.000	7.380	39.999			10
			5.500	7.320	-119.999			11
			6.000	7.340	39.999			12
			6.500	7.360	40.001			13
			7.000	7.410	100.000			14
			7.500	7.520	219.999			15
			8.000	7.540	40.001			16
			8.500	7.590	99.998			17
			9.000	7.660	140.001			18
			9.500	7.690	59.999			19
			10.000	7.710	39.999			20
860	26 23	8 79	11.000	7.780	70.001			21
			12.000	7.940	160.000			22
			13.000	8.000	60.000			23
			14.000	8.060	59.999			24
			15.000	8.110	49.999			25
			16.000	8.170	59.999			26
			17.000	8.270	100.000			27
			18.000	8.360	50.000			28
			19.000	8.460	100.000			29
			20.000	8.540	80.000			30
860	26 23	8 79	22.000	8.680	70.000			31

			24.000	8.840	80.000	32
			26.000	9.050	105.000	33
			28.000	9.150	50.000	34
			30.000	9.310	80.000	35
			32.000	9.450	70.000	36
			34.000	9.630	90.000	37
			36.000	9.760	65.000	38
			38.000	9.880	60.000	39
			40.000	10.030	75.000	40
860	26 23 8 79		42.000	10.150	60.000	41
			44.000	10.270	59.999	42
			46.000	10.450	90.000	43
			48.000	10.590	70.000	44
			50.000	10.730	70.001	45
			52.000	10.870	70.000	46
			54.000	11.070	100.000	47
			56.000	11.200	65.000	48
			58.000	11.380	30.000	49
860	26 23 8 79		60.000	11.490	55.000	50
			62.000	11.670	89.999	51
			64.000	11.830	80.001	52
			66.000	11.990	80.000	53
			68.000	12.200	105.000	54
			70.000	12.360	80.000	55
			72.000	12.510	75.000	56
			74.000	12.620	55.000	57
			76.000	12.820	100.000	58
			78.000	12.970	75.000	59
860	26 23 8 79		80.000	13.100	65.000	60
			82.000	13.280	90.000	61
			84.000	13.380	50.000	62
			86.000	13.520	70.000	63
			88.000	13.650	65.001	64
			90.000	13.670	9.999	65
			92.000	14.050	190.001	66
			94.000	14.220	85.000	67
			96.000	14.380	80.000	68
			98.000	14.520	70.000	69
			99.000	14.620	100.000	70

SURFACE INTERCEPT FOR SEGMENT 1 = 6.931

SEG	Z START	T START	Z END	T END	COND	BOON	GRADIENT	S. S.D.	RFU	PHF	T AT 100M	KV
1	10.000	7.710	30.000	9.310	5.562	0.000	73.775	28.199	4.437	1.997	14.854	2.420
2	30.000	9.310	44.000	10.270	5.440	0.000	72.271	11.074	4.437	1.997	14.117	2.606
3	44.000	10.270	98.000	14.520	5.500	0.000	78.020	29.216	4.437	1.997	14.676	2.475

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-26

Location: 42N 52E 27 NW 1/4 NE 1/4 SE 1/4

Elevation: 6280'Date Drilled: 5-26-79

Method: air/foam

Depth (m)	Description
0-3m.	Unconsolidated brown-black organic rich silty clay.
3-24m.	Friable, white (light brown when wet) silty fine grain quartz arenite, containing minor feldspar and biotite. Quartz grains subrounded to subangular.
24-66m.	Partially cemented gray-green siltstone and fine grain sandstone.
66-69m.	Friable, white very fine grain quartz arenite and siltstone. Gray brown micaceous silty fine grain sandstone.
69-72m.	As 66-69m. plus ~20% dark brown medium grain well cemented quartz arenite.
72-75m.	As 69-72m. but medium grain quartz arenite to 40%. Approximately equal amounts of white sandstone-siltstone and gray-brown micaceous sandstone.
75-78m.	Well cemented green silty claystone. Gray-green medium grain (glauconitic?) quartz sandstone bearing feldspar and hornblende.
78-96m.	Micaceous fine grain quartz arenite and as 75-78m.
	Sun exposure: well exposed at base of North trending ridge
	Vegetation: sparse grass
	γ-scan: Background (160-180 cps)
	Remarks: Minor water blowing to surface 1.5-36m. 20-30 gpm 36m-96m.

0.4 KM S CHICKEN CR SUMMIT

N.LAT 41.522, W.LONG 116.115

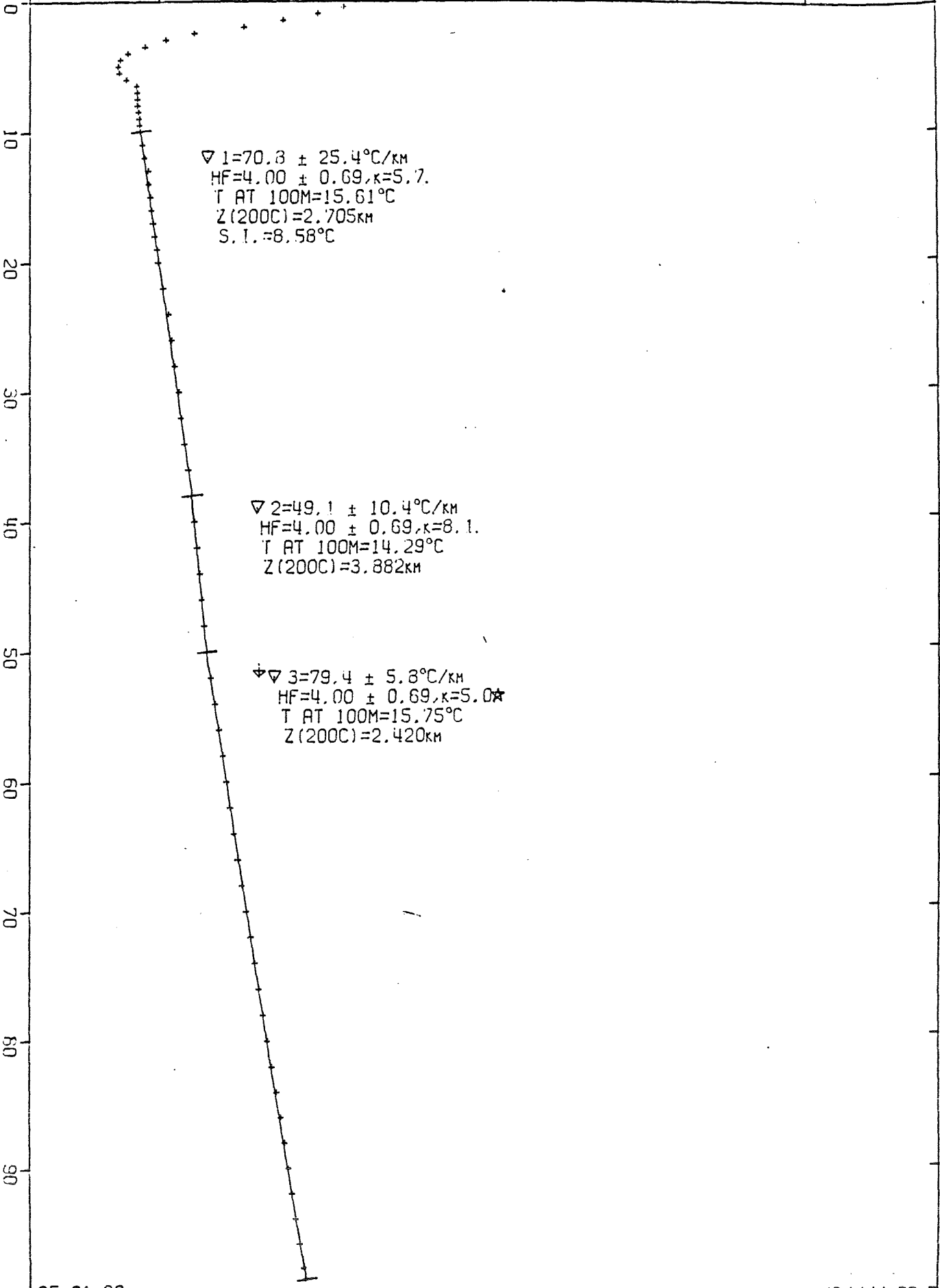
PROJ. 360

WELL 27

23 8 79

TEMPERATURE °C

5 10 15 20 25 30 35 40



▽ 1=70.8 ± 25.4°C/km
 HF=4.00 ± 0.69, κ=5.7.
 T AT 100M=15.61°C
 Z(200C)=2.705km
 S.I.=8.58°C

▽ 2=49.1 ± 10.4°C/km
 HF=4.00 ± 0.69, κ=8.1.
 T AT 100M=14.29°C
 Z(200C)=3.882km

▽ 3=79.4 ± 5.8°C/km
 HF=4.00 ± 0.69, κ=5.0★
 T AT 100M=15.75°C
 Z(200C)=2.420km

DEPTH M

25 01 80

10 11 80

GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	FRITON	DRL DATE	LP	LI	ISZ	IST
B60		27	23	8 79	0.4 KM S CHICKEN CR SUMMIT	JC/JJ/CP	25 5 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
3.9000	17.9000	41.5220	116.1160	1944.0

J	SEG START	SEG END	CONDIVITY	STD DEV.
1	10.000	39.000	0.000	0.000
2	38.000	56.000	0.000	0.000
3	50.000	99.000	5.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	SEG C	DEG C/KM	SAMPLE NO.
B60		27	23	8 79	0.500	17.100	99999.000	1
					1.000	16.110	-1980.003	2
					1.500	14.780	-2659.996	3
					2.000	13.270	-3020.000	4
					2.500	11.340	-3860.001	5
					3.000	10.250	-2179.997	6
					3.500	9.450	-1600.002	7
					4.000	8.770	-1360.001	8
					4.500	8.480	-579.998	9
					5.000	8.350	-190.000	10
B60		27	23	8 79	5.500	8.440	99.998	11
					6.000	8.700	520.000	12
					6.500	9.100	799.999	13
					7.000	9.130	60.001	14
					7.500	9.150	40.001	15
					8.000	9.150	0.000	16
					8.500	9.180	59.998	17
					9.000	9.210	60.001	18
					9.500	9.220	20.000	19
					10.000	9.250	60.001	20
B60		27	23	8 79	11.000	9.330	80.000	21
					12.000	9.420	89.998	22
					13.000	9.560	140.001	23
					14.000	9.590	29.999	24
					15.000	9.650	60.001	25
					16.000	9.700	49.999	26
					17.000	9.750	50.001	27
					18.000	9.820	70.000	28
					19.000	9.900	80.000	29
					20.000	9.950	49.999	30
B60		27	23	8 79	22.000	10.140	95.000	31

			24.000	10.340	99.999	32
			26.000	10.480	70.001	33
			28.000	10.590	54.999	34
			30.000	10.740	75.001	35
			32.000	10.820	40.000	36
			34.000	10.960	70.000	37
			36.000	11.120	80.000	38
			38.000	11.220	50.000	39
860	27 23	8 79	40.000	11.350	65.000	40
			42.000	11.450	50.000	41
			44.000	11.560	55.000	42
			46.000	11.630	35.000	43
			48.000	11.720	45.000	44
			50.000	11.830	55.000	45
			52.000	11.950	80.000	46
			54.000	12.140	75.000	47
			56.000	12.290	75.000	48
			58.000	12.450	80.000	49
860	27 23	8 79	60.000	12.590	70.000	50
			62.000	12.730	70.001	51
			64.000	12.890	80.000	52
			66.000	13.050	80.000	53
			68.000	13.210	80.000	54
			70.000	13.380	55.000	55
			72.000	13.550	85.000	56
			74.000	13.710	80.000	57
			76.000	13.870	80.000	58
			78.000	14.030	80.000	59
860	27 23	8 79	80.000	14.200	85.000	60
			82.000	14.370	85.000	61
			84.000	14.550	90.000	62
			86.000	14.710	80.000	63
			88.000	14.870	80.000	64
			90.000	15.020	75.000	65
			92.000	15.150	65.001	66
			94.000	15.290	70.000	67
			96.000	15.440	75.000	68
			98.000	15.590	75.000	69
			99.000	15.670	80.000	70

SURFACE INTERCEPT FOR SEGMENT 1 = 8.577

SEG	ZSTART	TSTART	ZEND	TEND	COND	BOUN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	10.000	9.250	38.000	11.220	5.652	0.000	79.771	25.363	4.000	0.688	15.606	2.705
2	38.000	11.220	50.000	11.830	8.146	0.000	49.109	10.379	4.000	0.688	14.285	3.482
3	50.000	11.830	99.000	15.670	5.000	0.000	75.422	5.817	4.000	0.688	15.745	2.420

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-27

Location: 42N 52E 22 SE 1/4 NE 1/4 SW 1/4

Elevation: 6380'

Date Drilled: 5-25-79

Method: air/foam

Depth (m)	Description
0-1.5m.	Unconsolidated silt, sand, and organic-rich brown-black clay. Silt and clay, 20%. Fine-medium, angular sand, 80%. Sand is mostly quartz. Soil horizons.
1.5-18m.	Partially cemented green, gray-green, and gray silty claystone. And brown fine grain quartz arenite with minor very small mafics.
18-19.5m.	Pale pink laminated siltstone.
19.5-24m.	Brown silty fine grain quartz sandstone. Brown micaceous fine to medium grain sandstone with bright red accessory mineral (oxidized mafic).
24-30m.	Brown, medium grain quartz sandstone bearing white, equant, subhedral feldspar (albitic plag). Feldspar .25-lmm. Quartz grains subrounded.
30-96m.	Blue-green micaceous fine grain quartz arenite. Color seems to originate from grains and cementing matrix. Cement is not calcite. Gray and gray-green micaceous fine to medium grain sandstone with subangular to subrounded grains of quartz. Coarse grain sandstone of quartz, feldspar, and green pyroxene (?). Approximately equal amounts of each mineral. Gray-black silty clay @ 42m and 95m. <5% of sample.
	Sun exposure: Well exposed
	Vegetation: Sparse grass
	γ-scan: Background (160-180 cps)
	<p>Remarks: Driller reports minor water blowing to surface from 1.5m to 45m depth. Air fluid blowing 40-50 gpm to surface below 45m depth. Possibly a distinct, stratiform aquifer since volume of water did not increase with depth. However, all sandstones were observed to be extremely porous and permeable. Very good aquifers. Coarser grain varieties bubble visibly and audibly when placed in contact with water.</p> <p>It is probable that sediments are saturated below 1.5m even though a significant aquifer was not encountered until 45m.</p>

TUSCARORA, NV
2.8 KM N BM 6030

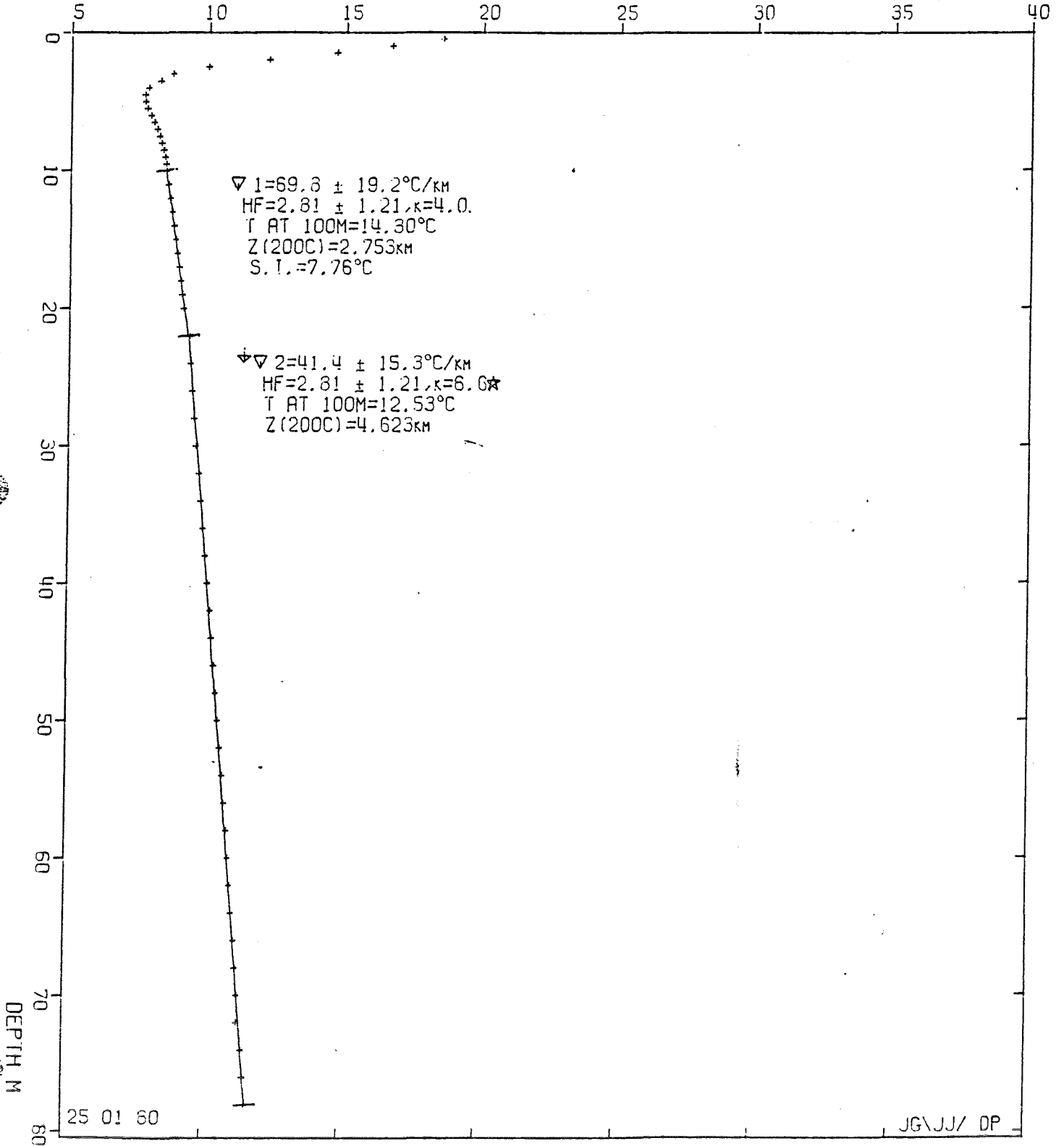
N.LAT 41.500, W.LONG 116.103

PROJ. 360

WELL 28

26 8 79

TEMPERATURE °C



GEOHERMAL LOG, ANAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR DPL DATE LP LI ISZ IST
 660 28 26 8 79 288 KM N RM 6030 JCAJJ/ LP 31 5 79 1 0 1 1

YCM XCM N.LAT W.LONG ELEV
 44.2000 19.7000 41.4998 116.1026 1902.0

J SEG START SEG END CONDTVY & STD DEV.
 1 10.000 22.000 0.000 0.000
 2 22.000 78.000 6.600 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DFG C/KM	SAMPLE NO.
660	28	26	8	79	0.500	16.520	99999.000	1
					1.000	16.680	-3680.000	2
					1.500	14.650	-4059.994	3
					2.000	12.170	-4960.003	4
					2.500	9.970	-4399.998	5
					3.000	8.680	-2580.002	6
					3.500	8.220	-919.998	7
					4.000	7.790	-859.999	8
					4.500	7.670	-240.002	9
					5.000	7.680	20.000	10
660	28	26	8	79	5.500	7.760	160.000	11
					6.000	7.890	260.000	12
					6.500	8.000	220.001	13
					7.000	8.110	219.997	14
					7.500	8.200	180.000	15
					8.000	8.280	160.000	16
					8.500	8.340	119.999	17
					9.000	8.400	120.003	18
					9.500	8.440	79.998	19
					10.000	8.460	40.001	20
660	28	26	8	79	11.000	8.530	70.000	21
					12.000	8.620	90.000	22
					13.000	8.680	59.999	23
					14.000	8.750	70.002	24
					15.000	8.810	59.999	25
					16.000	8.880	70.000	26
					17.000	8.950	70.000	27
					18.000	9.010	59.999	28
					19.000	9.060	50.001	29
					20.000	9.120	59.999	30
660	28	26	8	79	22.000	9.360	120.000	31
					24.000	9.390	15.000	32

26.000	9.460	35.000	33
28.000	9.540	40.000	34
30.000	9.600	50.000	35
32.000	9.720	60.000	36
34.000	9.800	40.000	37
35.000	9.880	40.000	38
38.000	9.980	50.000	39
40.000	10.080	50.000	40
42.000	10.190	54.999	41
44.000	10.250	30.001	42
46.000	10.340	44.999	43
48.000	10.410	35.001	44
50.000	10.450	40.000	45
52.000	10.560	45.000	46
54.000	10.680	49.999	47
56.000	10.760	40.000	48
58.000	10.850	45.000	49
60.000	10.910	30.001	50
62.000	10.990	40.000	51
64.000	11.070	40.000	52
66.000	11.160	45.000	53
68.000	11.220	30.000	54
70.000	11.300	40.000	55
72.000	11.300	0.000	56
74.000	11.460	90.000	57
76.000	11.550	35.000	58
78.000	11.620	35.000	59

860 28 26 8 79

F60 28 26 8 70

SURFACE INTERCEPT FOR SEGMENT 1 = 7.765

SEG	START	ZEND	TFND	COND	DCOR	RESIDUAL	S.D.	HFU	CHF	T AT 100P	KP
1	10.000	22.000	9.360	4.028	0.050	69.796	19.247	2.612	1.214	14.804	2.753
2	22.000	78.000	11.620	6.600	0.500	41.443	15.250	2.812	1.214	12.532	4.523

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-28

Location: 42N 52E 35 S center NW 1/4 NW 1/4

Elevation: 6280'

Date Drilled: 6-1-79

Method: air

Depth (m)	Description
Surface-3m.	Unconsolidated silt, sand and organic rich brown clay. Rounded quartzite float ranging from granules to boulders, predominantly pebbles and cobbles. Qtzite silver gray, weathering locally to tan or orange brown.
3-9m.	Friable, yellow-orange to tan sandy mudstone. Predominantly silt and clay, minor fraction very fine qtz sand, coarse basalt sand. Highly permiable.
9-20m.	As above, darker orange-brown color, slightly higher clay to silt ratio.
20-22m.	Friable, light tan and gray, muddy fine to medium-grain quartz sandstone. At least 10% clay and silt. Minor fraction coarse basalt sand. Permiable.
22-25m.	As above, gray color, higher basalt sand to qtz sand ratio. Basalt sand very coarse, qtz sand fine to medium. Minor fraction basalt gravel: 2-15mm, rounded. Basalt 15% feldspar (plag) going to clay in aphanitic, black groundmass. Alteration to chlorite or serpentine(?).
25-52m.	Sandy black basalt gravel. Coarse basalt sand, predominantly gravel 2-15mm., occasional coarse pebbles up to 30mm. Plag in basalt altering to white clay. Alteration to chlorite or serpentine.
52-96m.	Well sorted, rounded black basalt gravel 2-30mm., predominantly 8-16mm. 15% plag altering to white clay. Extensive serpentinization or chloritization.

Sun Exposure: well exposed

Vegetation: sparse grass and brush

Land Use: cattle grazing

γ -scan: background (120 cps)

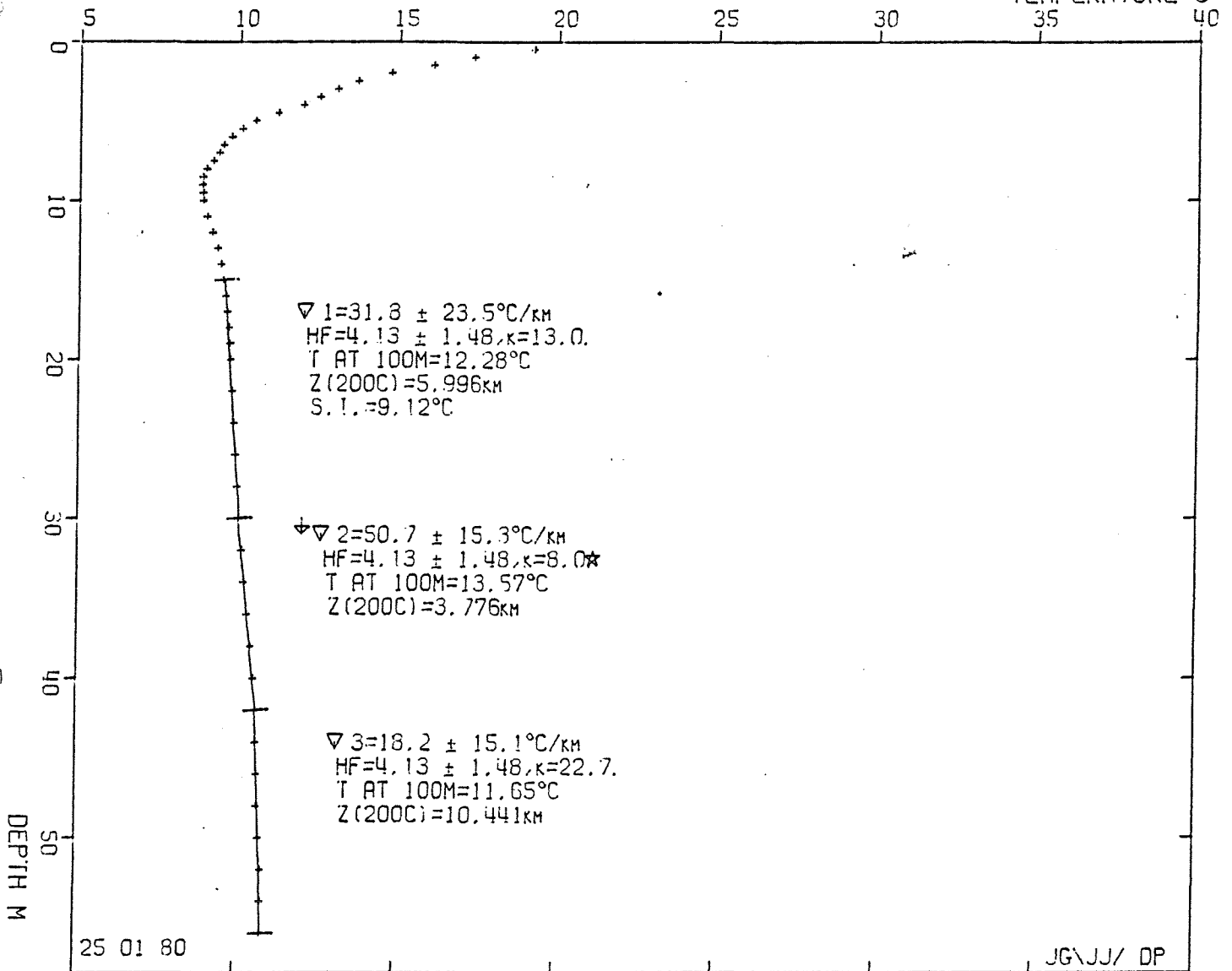
Ground water: Moisture encountered from just below surface. Driller reported that at 29m. an aquifer was encountered which produced 30 gal./min. This rate continued to total depth, indicating no other significant aquifers were penetrated.

TUSCARORA, NV
6.8 KM E HOT SULFUR SPG
PROJ. 360 WELL 29

N. LAT 41.470, W. LONG 116.069

26 8 79

TEMPERATURE °C



GEOHERMAL LOG, ANAX EXPLORATION, INC., A.L.L. 1165

25 01 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR DRL DATE LP LI ISZ IST
 860 29 26 8 79 6.8 KM E HOT SULFUR SPG JG/VJZ/SP 6 6 79 1 0 1 1

YCM XCM N.LAT N.LONG ELEV
 39.0000 24.2000 41.4705 116.0650 1975.1

J SEG START SEG END CONDVITY & STD DEV.
 1 15.000 30.000 0.000 0.000
 2 30.000 42.000 8.000 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

3 42.000 50.000 0.000 0.000

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		29	26	8 79	0.500	19.200	99999.000	1
					1.000	17.230	-3739.998	2
					1.500	16.060	-2540.001	3
					2.000	14.730	-2659.996	4
					2.500	13.690	-2080.002	5
					3.000	13.050	-1279.999	6
					3.500	12.500	-1029.999	7
					4.000	11.990	-1020.000	8
					4.500	11.200	-1560.002	9
					5.000	10.500	-1399.998	10
860		29	26	8 79	5.500	10.080	-840.000	11
					6.000	9.750	-660.000	12
					6.500	9.500	-500.000	13
					7.000	9.360	-280.003	14
					7.500	9.170	-380.001	15
					8.000	8.950	-439.999	16
					8.500	8.840	-220.001	17
					9.000	8.820	-39.997	18
					9.500	8.840	39.997	19
					10.000	8.860	40.001	20
860		29	26	8 79	11.000	8.980	120.001	21
					12.000	9.150	170.000	22
					13.000	9.320	170.000	23
					14.000	9.430	109.997	24
					15.000	9.520	90.000	25
					16.000	9.610	90.000	26
					17.000	9.670	59.999	27
					18.000	9.720	50.001	28
					19.000	9.760	39.999	29
					20.000	9.780	20.000	30
860		29	26	8 79	22.000	9.830	25.001	31

24.000	9.890	30.000	32
26.000	9.930	20.000	33
28.000	10.000	35.001	34
30.000	10.050	25.000	35
32.000	10.150	50.000	36
34.000	10.220	35.000	37
36.000	10.340	59.999	38
38.000	10.480	70.001	39
40.000	10.570	45.000	40
42.000	10.630	30.000	41
44.000	10.660	15.000	42
46.000	10.650	14.999	43
48.000	10.700	5.000	44
50.000	10.770	35.000	45
52.000	10.840	35.000	46
54.000	10.860	10.000	47
56.000	10.850	-5.000	48

860 29 26 8 79

SURFACE INTERCEPT FOR SEGMENT 1 = 9.116

SEG	ZSTART	TSTART	ZEND	TEND	COND	DOCN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KF
1	15.000	9.520	30.000	10.050	12.983	0.000	51.840	23.474	4.134	1.476	12.279	5.996

SEG	ZSTART	TSTART	ZEND	TEND	COND	DOCN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KF
2	30.000	10.050	42.000	10.630	8.000	0.500	50.718	15.281	4.134	1.476	13.572	3.776

PRECEDING SEGMENT USED FOR EXTRAPOLATION

SEG	ZSTART	TSTART	ZEND	TEND	COND	DOCN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KF
3	42.000	10.630	56.000	10.850	22.697	0.000	16.213	15.084	4.134	1.476	11.651	10.441

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-29

Location: 41N 52E 12 SW 1/4 NE 1/4 NE 1/4

Elevation: 6470'

Date Drilled: 6-3, 4, 5, 6-79

Method: air hammer/foam to 12m.
 bit/mud to T. D.

Depth (m)	Description
0-1.5m.	Unconsolidated silt sand, organic rich clay and quartzite gravel, generally pebbles, also cobbles and boulders up to 2m. diameter. Qtzite silver gray, weathered tan, orange-brown.
1.5-12m.	Partly consolidated quartz sand, argillite granules and quartzite gravel and boulders. Fine to very coarse qtz. sand, fragments of sandy black argillite. Predominantly qtzite gravel and boulders. Qtzite appears white, gray and a muddy looking dark gray.
12-20m.	Gray and white compositionally layered calcareous quartzite. Layering of clean white to light gray qtzite and dark gray, muddy qtzite bearing few very fine black grains and containing extremely fine grains of mica (possibly some pyrite). Calcium carbonate content significant. Some fine dark gray veins.
20-54m.	Dark gray calcareous argillite. Composition varies slightly between more sandy and more clay rich. Some fine veins of calcite.
	Sun Exposure: well exposed at base of 10-20° talus slope
	Vegetation: sparse grass and brush
	γ-scan: background (100-110)
	Land use: cattle grazing
	Ground water: Moisture encountered at about 1.5m. Minor water at 12m., increased to about 30 gal/min at 15m. Mud used beginning at 12m. Became artesian at 45m. throwing 5 gal/min which increased slightly until drilling stopped at 54m.
	Comments: Driller felt that continued drilling could encounter higher pressure artesian. Hole well sealed with cement. P. V. C. set to 53m.

TUSCARORA, NV
0.3 KM NNE BM 6030

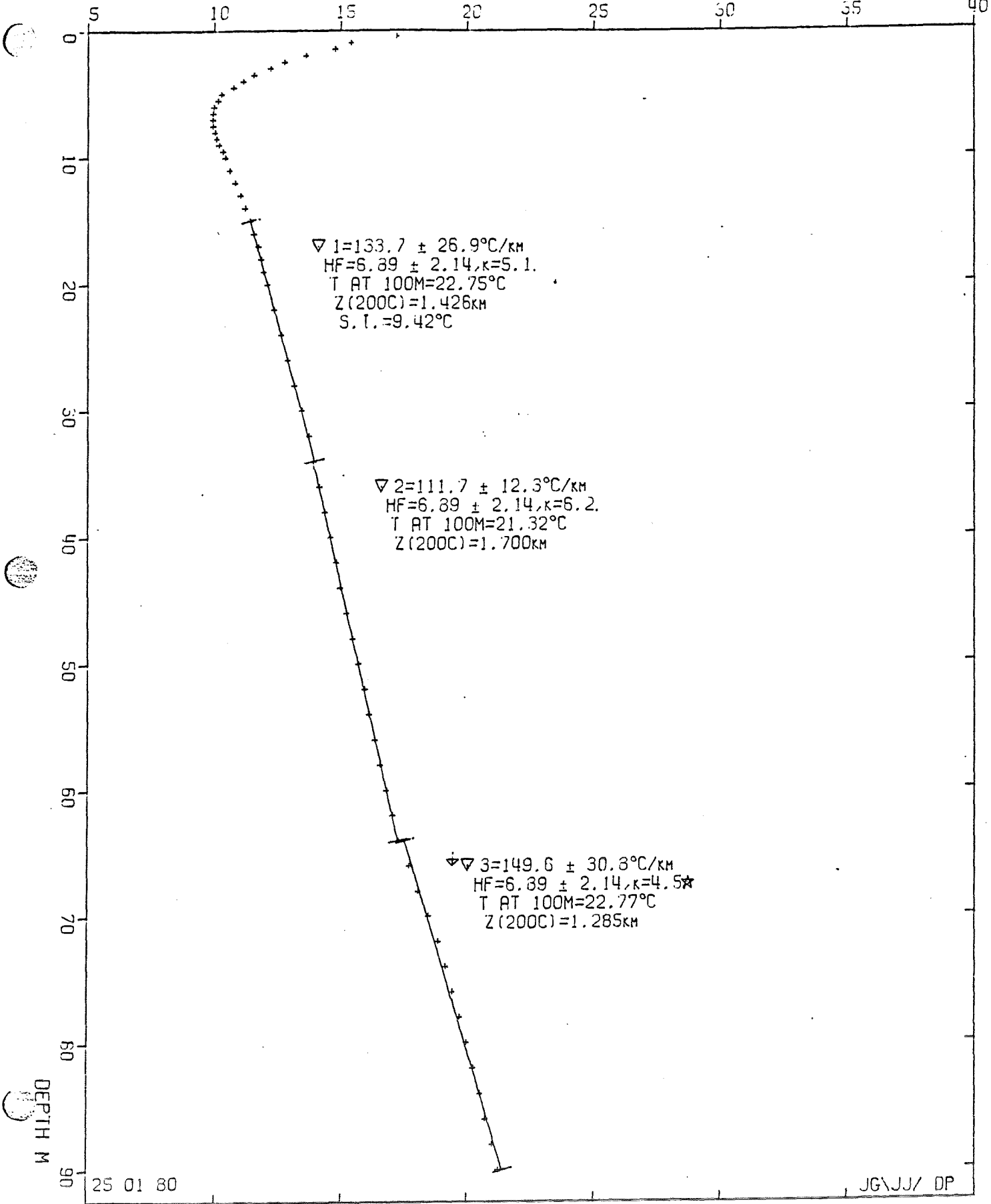
N. LAT 41.451; W. LONG 116.100

PROJ. 360

WELL 30

25 3 79

TEMPERATURE °C



GEOHERMAL LOG, ANAX EXPLORATION, INC., A.L.LANGE

25 01 80
PROJECT: TUSCARORA, NV

WELL NO DA MO YR WELL TITLE EDITOR PRL DATE LP LI ISZ IST
860 30 26 8 79 0.8 KM NNE BM 6030 JG/JJ/DF 12 6 79 1 0 1 1

YCM XCM N.LAT W.LONG FLEV
40.9000 20.1000 41.4812 116.0996 1859.3

J	SEG START	SEG END	CONDIVITY	STD DEV.
1	15.000	34.000	0.000	0.000
2	34.000	64.000	0.000	0.000
3	64.000	90.000	4.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

WELL NO	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	30	26	8 79	0.500	17.180	99999.900	1
				1.000	15.390	-3579.995	2
				1.500	14.770	-1240.002	3
				2.000	13.610	-2320.000	4
				2.500	12.770	-1680.000	5
				3.000	12.200	-1140.000	6
				3.500	11.550	-1299.999	7
				4.000	11.140	-820.000	8
				4.500	10.770	-740.002	9
				5.000	10.280	-980.000	10
860	30	26	8 79	5.500	10.130	-299.999	11
				6.000	9.980	-299.999	12
				6.500	9.940	-80.002	13
				7.000	9.940	0.000	14
				7.500	9.950	20.000	15
				8.000	10.010	119.999	16
				8.500	10.080	140.003	17
				9.000	10.180	199.997	18
				9.500	10.330	300.003	19
				10.000	10.430	199.997	20
860	30	26	8 79	11.000	10.600	170.000	21
				12.000	10.830	230.001	22
				13.000	11.030	199.999	23
				14.000	11.210	180.000	24
				15.000	11.410	200.001	25
				16.000	11.550	139.999	26
				17.000	11.730	180.000	27
				18.000	11.830	100.000	28
				19.000	11.930	59.998	29
				20.000	12.080	150.002	30
				22.000	12.360	139.999	31

			24.000	12.630	135.000	32
			26.000	12.890	130.000	33
			28.000	13.140	125.000	34
			30.000	13.440	150.000	35
			32.000	13.750	155.001	36
			34.000	13.920	84.999	37
			36.000	14.140	110.001	38
			38.000	14.360	110.000	39
			40.000	14.580	110.001	40
860	30 26	H 79	42.000	14.810	115.000	41
			44.000	14.980	65.000	42
			46.000	15.220	120.000	43
			48.000	15.470	125.000	44
			50.000	15.700	115.000	45
			52.000	15.940	120.000	46
			54.000	16.120	90.000	47
			56.000	16.340	109.999	48
			58.000	16.550	105.001	49
			60.000	16.800	125.000	50
860	30 26	H 79	62.000	17.050	125.000	51
			64.000	17.300	125.000	52
			66.000	17.710	205.000	53
			68.000	18.070	180.000	54
			70.000	18.470	199.999	55
			72.000	18.850	190.001	56
			74.000	19.170	160.000	57
			76.000	19.430	129.999	58
			78.000	19.720	145.000	59
			80.000	19.990	135.000	60
860	30 26	H 79	82.000	20.240	125.000	61
			84.000	20.510	135.000	62
			86.000	20.750	120.001	63
			88.000	21.020	134.998	64
			90.000	21.270	125.000	65

SURFACE INTERCEPT FOR SEGMENT 1 = 9.416

SEG	ZSTART	TSTART	ZEND	TEND	COND	DOCN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	15.000	11.410	34.000	13.920	5.149	0.000	134.715	26.972	6.895	2.135	22.745	1.426
2	34.000	17.920	64.000	17.300	6.165	0.000	111.689	12.270	6.895	2.135	21.521	1.700
3	64.000	17.300	90.000	21.270	4.500	0.500	149.577	30.831	6.895	2.135	22.766	1.265

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
 Hole 860-30

Location: 41N 52E 2 SW 1/4 SE 1/4 NW 1/4

Elevation: 6100'

Date Drilled: 6-11, 12-79

Method: air hammer/mud to 10m.
 rotary/mud to T. D.

Depth (m)	Description
0-3m.	Yellow brown poorly consolidated sand, silt, clay and pebble size debris. Surface soil rich in organic material and lower in clay content.
3-96m.	<p>Variously cemented fine and med. grained feldspathic sandstones, predominantly quartz composition. Quartz subround to angular, plag. grains subhedral to rounded. Variably indurated. Light to med. gray color, some salt and pepper texture. Black mafics (hbd. & mica) present. Varying amounts of clay of which at least some is probably authigenic from altered feldspar.</p> <p>Euhedral calcite in veins and fracture coatings noted at 51m., also pyrite coatings at various depths. Bedding evidenced by alternating and repeating compositions. Micro lamination visible in finer silt varieties. Sporadically distributed are black, aphanitic, (basaltic?) semi-rounded pebbles in well-cemented sandy mudstone.</p>
3-30m.	50% clay
30-96m.	25% clay, variable
	Sun exposure: well exposed
	Vegetation: sparse grass, brush and broad leaf ground cover.
	γ-scan: 120-140 cps (background)
	Land use: cattle grazing
	<p>Ground water: Moisture encountered near surface. Wet sticky clay adhering to drill stem entire depth. Artesian encountered at 40m., produced 3-5 gal./min. Driller cemented hole from 36-48m. with 10 bags cement and redrilled. Water at least partially sealed off by cement. Caving controlled.</p>

Deleted from computer file

AMAX EXPLORATION, INC.
TEMPERATURE/DEPTH LOG

NO 2nd log possible
Hole destroyed to drill
2000 foot test.

ΔT Well No. 860-31

Property-Project Tuscarora Depth Logged 96m
Map Tuscarora Scale 15.0' Date: Drilled 13-6-79 Logged 1-7-79
State NV County Elko, of NE 1/4 of SW 1/4 of SW 1/4 of Sec 14 T41N R 52E
Instrument 30 Operator Jim Gross Elevation 5880 (ft)
Comments 7/8" PVC hole 860-34 50 feet to the North

Replaced by 34

RT JUSTIFY

Card A

Date Logged		Proj No	Well No	DA	MO	YR		
1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	860						
21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65
66	67	68	69	70	71	72	73	74
75	76	77	78	79	80	81	82	83
84	85	86	87	88	89	90	91	92
93	94	95	96	97	98	99	00	01
02	03	04	05	06	07	08	09	10
11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28
29	30	31	32	33	34	35	36	37
38	39	40	41	42	43	44	45	46
47	48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73
74	75	76	77	78	79	80	81	82
83	84	85	86	87	88	89	90	91
92	93	94	95	96	97	98	99	00
01	02	03	04	05	06	07	08	09
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62	63	64	65	66	67	68	69	70
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80	81	82	83	84	85	86	87	88
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07	08	09	10	11	12	13	14	15
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79	80	81	82	83	84	85	86	87
88	89	90	91	92	93	94	95	96
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84	85	86	87	88	89	90	91	92
93	94	95	96	97	98	99	00	01
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74	75	76	77	78	79	80	81	82
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73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
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54	55	56	57	58	59	60	61	62
63	64	65	66	67	68	69	70	71
72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89
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26	27	28	29	30	31	32	33	34
35	36	37	38	39	40	41	42	43
44	45	46	47	48	49	50	51	52
53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79
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89	90	91	92	93	94	95	96	97
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07	08	09	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33
34	35	36	37	38	39	40	41	42
43	44	45	46	47	48	49	50	51
52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78
79	80	81	82	83				

GEOGRAPHICAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25.01.80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860	31	1	7	79	2.9 KM S BM 6030	JG / DJ	13 6 79	1	0	1	1

YCH	XCH	N.LAT	W.LONG	ELEV
34.9000	19.9000	41.4473	116.1012	1792.2

J	SEG START	SEG END	CONDIVITY	STD DEV.
1	25.000	50.000	0.000	0.000
2	50.000	65.000	0.000	0.000
3	65.000	80.000	0.000	0.000
4	80.000	90.000	0.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DTG C/KM	SAMPLE NO.
860	31	1	7	79	1.000	16.780	99999.000	1
					2.000	14.210	-2570.000	2
					3.000	11.960	-2250.000	3
					4.000	10.490	-1470.000	4
					5.000	9.900	-590.000	5
					10.000	9.860	-8.000	6
					15.000	10.710	170.000	7
					20.000	10.950	48.000	8
					25.000	11.040	18.000	9
					30.000	11.260	44.000	10
860	31	1	7	79	35.000	11.470	42.000	11
					40.000	11.640	34.000	12
					45.000	11.910	54.000	13
					50.000	12.140	46.000	14
					55.000	12.430	58.000	15
					60.000	12.780	70.000	16
					65.000	13.060	56.000	17
					70.000	13.360	54.000	18
					75.000	13.770	78.000	19
					80.000	14.180	82.000	20
860	31	1	7	79	85.000	14.690	102.000	21
					90.000	15.230	-36.000	22
					95.000	15.690	18.400	23
					95.000	15.740	50.001	24

SURFACE INTERCEPT FOR SEGMENT 1 = 9.944

SEG	ZSTART	ZEND	IFND	COND	PCON	GRADIENT	S.D.	REF	CHF	T AT 100M	FM	
1	25.000	11.040	50.000	12.140	1.515	0.000	40.143	7.229	0.660	8.021	14.317	4.364

rep covered Aug 24

SEG	ZSTART	TSTART	ZEND	TEND	COND	&	DCON	GRADIENT	&	S.D.	HFU	&	DHF	T AT 100M	KM
2	50.000	12.140	65.000	13.060	1.060		0.000	62.198		7.646	0.660		8.021	15.237	3.071
3	65.000	13.060	80.000	14.180	0.879		0.000	75.001		9.460	0.650		8.021	15.680	2.558
4	80.000	14.180	90.000	18.320	6.090		0.990	-0.149		133.702	0.650		8.021	18.319	99999.000

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora
Hole 860-31

Location: 41N 52E 14 NE 1/4 SW 1/4 SW 1/4

Elevation: 5880'

Date Drilled: 6-13-79

Method: air hammer/mud to 10m.
 rotary/mud to T. D.

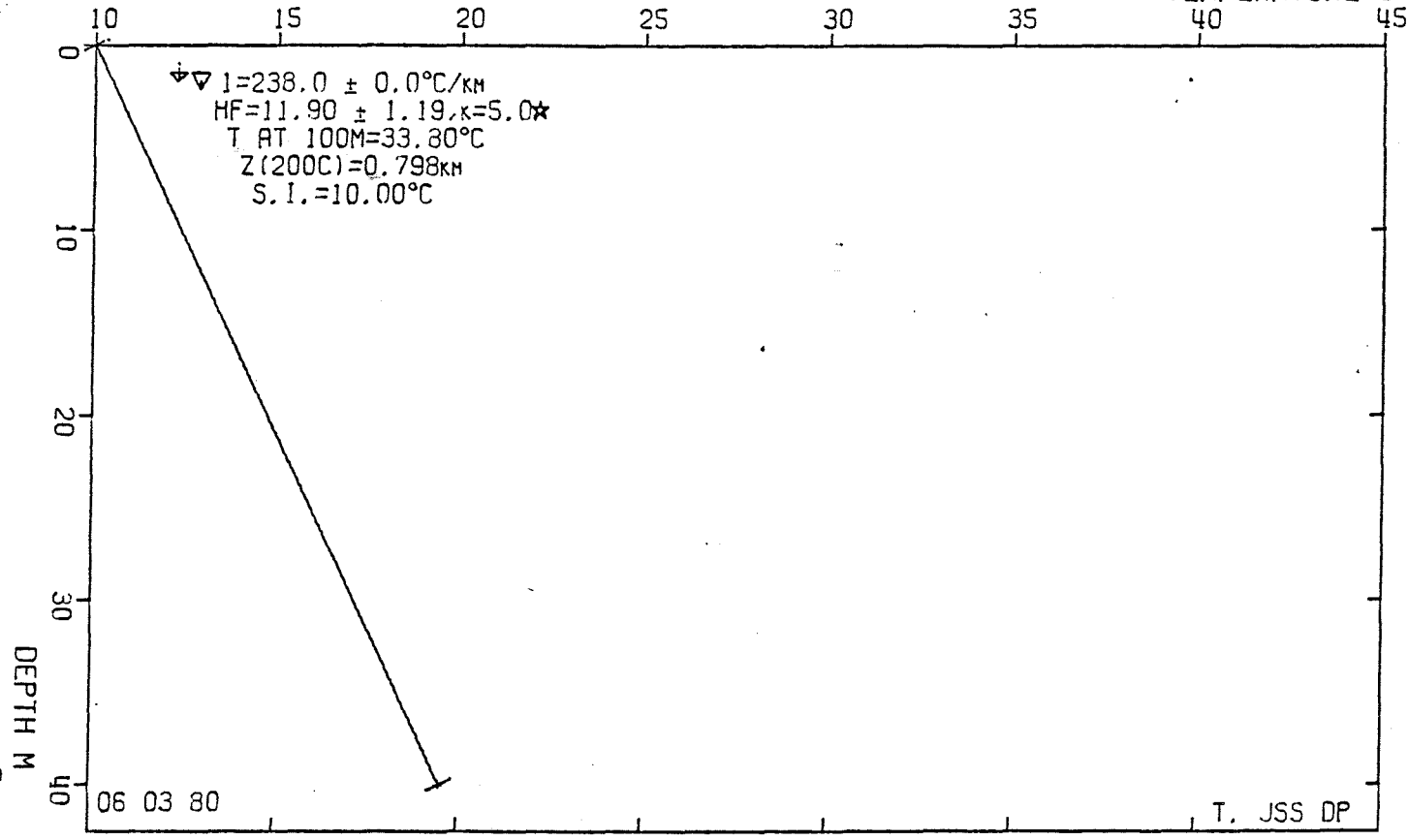
Depth (m)	Description
	<p>General Description: Alluvial Fan Deposits</p> <p>Poorly consolidated silt, sand and lithic debris ranging in size from pebble to boulder. 90% quartzitic material of fine to medium grain size. Minor content silica cemented gray siltstone, some with siliceous veining. Possible sandy interbeds of indeterminate thicknesses or sand as gravel matrix. Free sand content 50%. Variable but generally low clay content, about 5-10%.</p>
0-18m.	As above, coarser gravels fining to 18m.
18-21m.	Less gravel, higher clay content, about 50%.
21-75m.	As general description
75-96m.	As above, slightly more clay matrix with sand cuttings as evidenced by cohesive clayey cuttings.
	<p>Exposure to sun: good, valley floor</p> <p>Vegetation: sparse grass and brush</p> <p>γ-scan: 100-120 cps (background)</p> <p>Land use: cattle grazing</p> <p>Ground water: water standing in hole at 4.5m., probably saturated below 4.5m.</p> <p>Comments: Probably McAffe Quartzite and/or Jacks Peak (Valmy Group, Churkin and Kay, 1967.)</p>

TUSCARORA, NV
4 KM WSW OF CHICKEN SUMMIT, AR

N. LAT 41.507; W. LONG 116.161

PROJ. 860 WELL 35 28 8 79

TEMPERATURE °C



GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE
26 02 80
PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR DRL DATE LP LI ISZ IST
860 35 28 8 79 4 KM WSW OF CHICKEN SUMMIT, AR T. JSS DP 16 08 79 0 0 1 1

YCH XCH N.LAT W.LONG ELEV
1.2000 11.9000 41.5068 116.1609 1853.2

J SEG START SEG END CONDTVY & STD DEV.
1 0.000 40.000 5.000 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ WELL DA MO YR DEPTH (M) DEG C DEG C/KM SAMPLE NO.
860 35 28 8 79 0.000 10.000-99999.000 1
40.000 19.520 238.000 2

SURFACE INTERCEPT FOR SEGMENT 1 = 10.000

SEG ZSTART TSTART ZEND TEND COND & DCON GRADIENT & S.D. HFU & DHF T-AT-100M KM
1 0.000 10.000 40.000 19.520 5.000 0.500 238.000 0.000 11.900 1.190 33.800 0.798

PRECEDING SEGMENT USED FOR EXTRAPOLATION

GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE
 26 02 80
 PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860		35	28	879	4 KM WSW OF CHICKEN SUMMIT, AP	T. JSS DP	16 08 79	1	0	1	1
		YCM	XCM	N.LAT	W.LONG	ELEV					
		1.2000	11.5000	41.5068	116.1609	1853.2					

J	SEG START	SEG END	CONDIVITY	STD DEV.
1	0.000	40.000	5.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
 *** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		35	28	879	0.000	10.000	99999.000	1
					5.000	19.400	1880.000	2
					10.000	19.430	6.000	3
					15.000	19.440	2.000	4
					20.000	19.470	6.000	5
					25.000	19.490	4.000	6
					30.000	19.510	4.000	7
					35.000	19.520	2.000	8
					40.000	19.520	0.000	9

SURFACE INTERCEPT FOR SEGMENT 1 = 15.843

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT & S.D.	HFU & DHF	T AT 100M	KM
1	0.000	10.000	40.000	19.520	5.000	0.500	128.834 673.657	9.810 34.327	27.250	1.441

PRECEDING SEGMENT USED FOR EXTRAPOLATION

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GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

06 03 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR DRL DATE LP LI ISZ IST
860 35 28 8 79 4 KM WSW OF CHICKEN SUMMIT,AR T. JSS DP 16 08 79 0 0 1 1

YCM XCM N.LAT W.LONG FLEV
1.2000 11.9000 41.5068 116.1609 1853.2

J SEG START SEG END CONDTVY & STD DEV.
1 0.000 40.000 5.000 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ WELL DA MO YR DEPTH (M) DEG.C DEG.C/KM SAMPLE NO.
860 35 28 8 79 0.000 10.000 99999.000 1
40.000 19.520 238.000 2

SURFACE INTERCEPT FOR SEGMENT 1 = 10.000

SEG ZSTART TSTART ZEND TEND COND & DCON GRADIENT & S.D. HFU & DHF T AT 100M KM
1 0.000 10.000 40.000 19.520 5.000 0.500 238.000 0.000 11.900 1.190 33.600 0.798

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: 860-35Location: 42N, 52E, SW $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 29Elevation: 6060Date Drilled: 8-(14,15)-79

Method: Rotary/mud

Depth (m)

Description

0 - 8m	Silty tuffaceous sandstone. 80% med med. sand and finer material, 5% clay. Silica cemented sand and silt size tuff fragments generally angular and subangular. 5% quartz. 5% pebble size rounded lithic fragments.
8 - 9m	Same as above, with exception that 30% of sand size material is a dark gray, feldspar bearing glassy matrixed volcanic rock rather than various tuff fragments.
9 - 45m	Same, ratio of tuffaceous material to dark gray vitrophyric material varies between 80/20 and 50/50.
45 - 72m	Dark gray porphyritic volcanic rock. Contains alkali and plag. feldspar phenocrysts which are altered. Aphanitic ground mass. Zonation is some plag. slightly vesicular in appearance, some devitrifying welded glass shards. A welded crystal tuff (?).
72 - 90m	Med gray/brown slightly porphyritic volcanic rock. Few altered feldspar phenocrysts, some are euhedral plag. Also a few mafic grains (pyroxene).
	Exposure to sun: Excellent except late afternoon and evening, and very early morning.
	Vegetation: grassy meadow and sage meet at drill site
	Land use: cattle and horses grazing
	Groundwater: Artesian at 78m. flowing at 15 gal/min or less.
	Comments: Lost a little circulation fluid constantly while drilling.

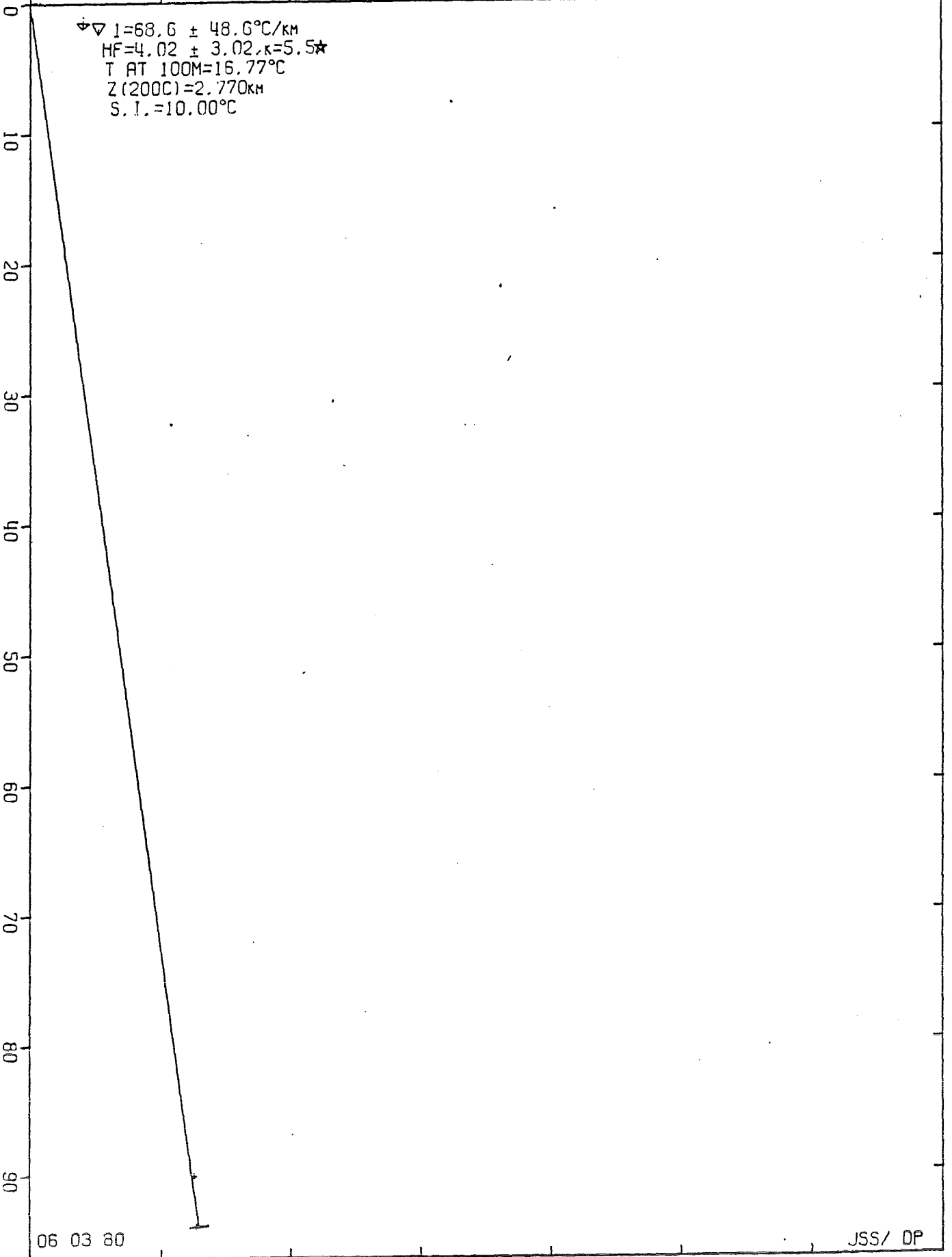
TOULAKUNA, NV
4.8 KM N HOT SULPHUR SPRS, ART.

N.LAT 41.516; W.LONG 116.157

PROJ. 860 WELL 36 28 8 79

TEMPERATURE °C

10 15 20 25 30 35 40 45



∇ $I = 68.6 \pm 48.6^\circ\text{C}/\text{KM}$
 $HF = 4.02 \pm 3.02, \kappa = 5.5^*$
T AT 100M = 16.77°C
Z (200C) = 2.770KM
S.I. = 10.00°C

DEPTH M

06 03 80

JSS/ DP

GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

26 02 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL-TITLE EDITOR PRL DATE LP LI ISZ IST
860 36 28 8 79 4.8 KM N HOT SULPHUR SPRS,ART. JSS/ DP 18 06 79 1 0 1 1

YCM XCM N.LAT W.LONG ELEV
2.9000 12.3500 41.5164 116.1575 1914.1

J SEG START SEG END CONDTVY & STD DEV.
1 0.000 94.000 5.500 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860		36	28	8 79	0.000	10.000	99999.000	1
					5.000	15.500	1100.000	2
					10.000	15.430	-14.000	3
					15.000	15.560	-26.000	4
					20.000	15.680	24.000	5
					25.000	15.750	14.000	6
					30.000	15.810	12.000	7
					35.000	15.810	0.000	8
					40.000	15.910	20.000	9
					45.000	15.950	8.000	10
860	36 28 8 79				50.000	15.960	2.000	11
					55.000	16.000	8.000	12
					60.000	16.010	2.000	13
					65.000	16.030	4.000	14
					70.000	16.040	2.000	15
					75.000	16.050	2.000	16
					80.000	16.050	0.000	17
					85.000	16.140	18.000	18
					90.000	16.280	28.000	19
					94.000	16.360	20.000	20

SURFACE INTERCEPT FOR SEGMT-1 = 14.466

SEG	ZSTART	TSTART	ZEND	TEND	COND & DCON	GRADIENT & S.D.	HFU & GHF	T AT 100M	KF
1	0.000	10.000	94.000	16.360	5.500 0.500	24.246 254.203	2.605 14.102	16.505	7.568

PRECEDING SEGMENT USED FOR EXTRAPOLATION

GEOTHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE
 26 02 80
 PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL-TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST
860	36 28	8 79			4.8 KM N. HOT SULPHUR SPRS,ART.	JSS/ DP	18 08 79	0	0	1	1
	YCM	XCM	N.LAT	W.LONG	ELEV						
	2.9000	12.3500	41.5164	116.1575	1914.1						

J	SEG START	SEG END	CONDTVY & STD DEV.
1	0.000	94.000	5.500 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PPOJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	36 28	8 79			0.000	10.000	99999.000	1
					90.000	16.280	69.778	2
					94.000	16.360	20.000	3

SURFACE INTERCEPT FOR SEGMENT 1 = 10.004

SEG	ZSTART	TSTART	ZEND	TEND	COND & DCON	GRADIENT & S.D.	1FU &	DHF	T AT 100M	KM
1	0.000	10.000	94.000	16.360	5.500 0.500	68.627 48.641	4.018	3.018	16.772	2.770

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: Tuscarora

860-36

Location: 42N 52E Sec. 29, NW,NE,NWElevation: 6220'Date Drilled: 8-18-79Method: Rotary/mud

Depth (m)	Description
0 - 51	Devitrified crystal tuff. Decomposing. Clayey feldspars, tiny mafics. Glass shards and quartz. Predominantly clay.
51 - 60	Essentially same, less devitrified. Numerous welded glass shards, clayey feldspar crystals and quartz.
60 - 66	Light gray devitrified crystal tuff, decomposing. Mostly clay. Crystals of quartz, feldspar, small mafics. Similar to 0 - 51m.
66 - 75	Very competent, glassy gray welded crystal tuff. Fine grained. Not devitrified. Large zoned feldspars, centers lime green clay.
75 - TD	Same except color changed to light gray/brown, more quartz and tiny mafic crystals.
Exposure to sun: excellent Vegetation: grass (meadow) Land use: cattle grazing Groundwater: artesian encountered around 90m, flows 5 g.p.m. Well located 10m. from spring flowing 10 g.p.m.	

TUSCARORA, NV
INTERSECTION SECS 20 21 29 28

N.LAT 41.517; W.LONG 116.145

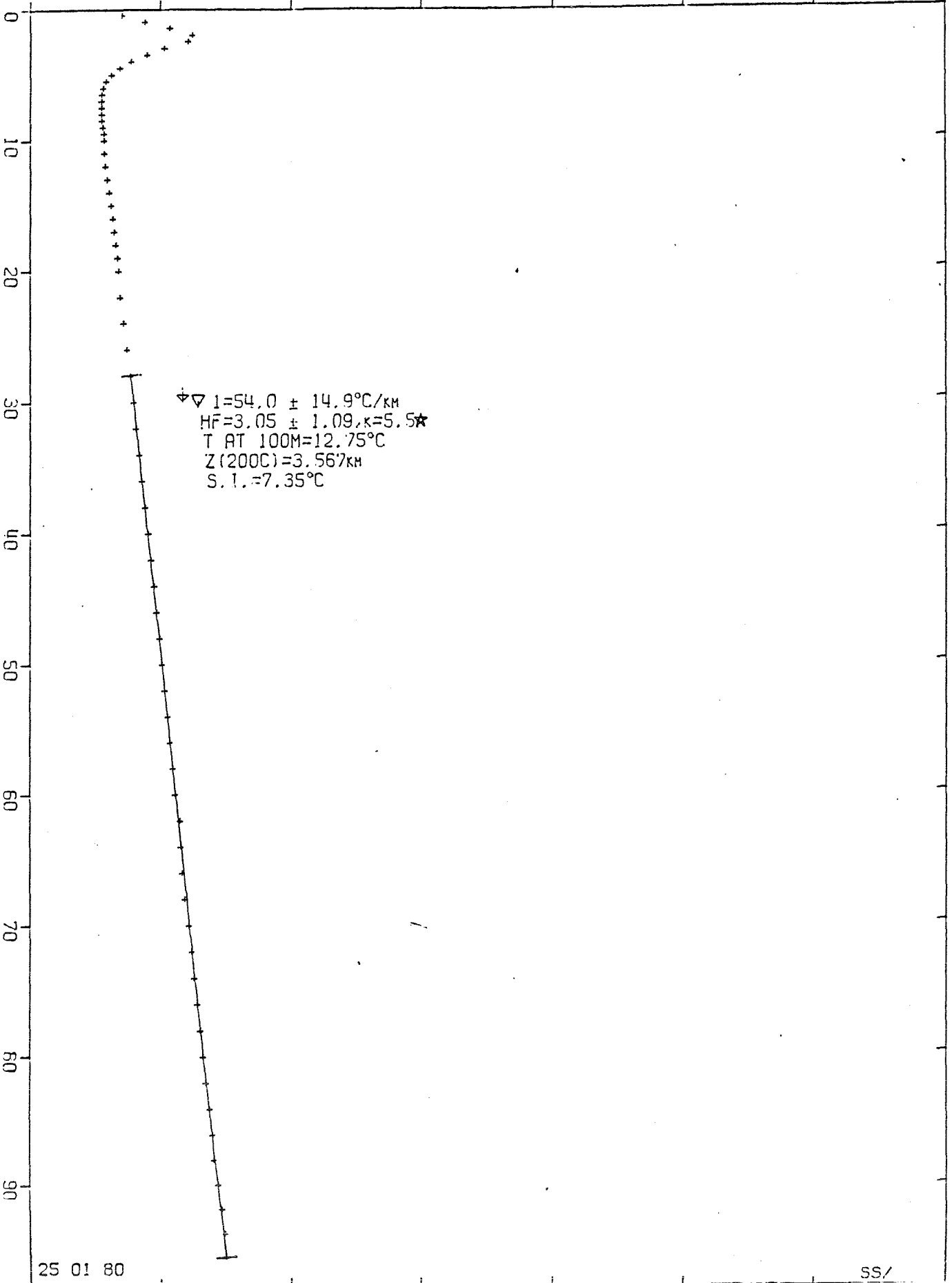
PROJ. 360

WELL 37

19 11 79

TEMPERATURE °C

5 10 15 20 25 30 35 40



▽ 1=54.0 ± 14.9°C/km
HF=3.05 ± 1.09, κ=5.5★
T AT 100M=12.75°C
Z(200C)=3.567KM
S. I.=7.35°C

DEPTH M

25 01 80

SS/

GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE
 860 37 19 11 79 INTERSECTION SFCS 20 21 29 28

EDITOR 587 DPL DATE 20 8 79 LP LI ISZ IST
 1 0 1 1

YCH 3.0000 XCH 14.0000 N.LAT 41.5170 W.LONG 116.1482
 FLEV 2001.0

J SEG START SEG END CONDIVITY & STD DEV.
 1 28.000 96.000 5.500 0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS.

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DGS C/KM	SAMPLE NO.	
860		37	19	11	79	0.500	8.510	99999.000	1
						1.000	5.400	1780.002	2
						1.500	10.350	1899.998	3
						2.000	11.200	1700.091	4
						2.500	11.050	-299.999	5
						3.000	10.140	-1820.000	6
						3.500	9.480	-1320.000	7
						4.000	8.880	-1200.001	8
						4.500	8.440	-880.001	9
						5.000	8.120	-639.999	10
860		37	19	11	79	5.500	7.900	-439.999	11
						6.000	7.790	-219.999	12
						6.500	7.750	-20.000	13
						7.000	7.740	-20.000	14
						7.500	7.740	0.000	15
						8.000	7.750	20.000	16
						8.500	7.760	19.999	17
						9.000	7.780	40.001	18
						9.500	7.820	80.000	19
						10.000	7.830	20.000	20
860		37	19	11	79	11.000	7.850	20.000	21
						12.000	7.890	40.000	22
						13.000	7.960	70.000	23
						14.000	8.030	70.000	24
						15.000	8.110	80.000	25
						16.000	8.170	59.999	26
						17.000	8.210	40.001	27
						18.000	8.280	70.000	28
						19.000	8.330	50.001	29
						20.000	8.380	49.999	30
860		37	19	11	79	22.000	8.450	39.000	31
						24.000	8.570	60.000	32
						26.000	8.690	59.999	33

		28.000	8.850	80.000	34
		30.000	8.970	60.000	35
		32.000	9.070	50.000	36
		34.000	9.190	59.999	37
		36.000	9.300	55.000	38
		38.000	9.420	59.999	39
		40.000	9.520	50.000	40
860	37 19 11 79	42.000	9.640	60.000	41
		44.000	9.750	55.000	42
		46.000	9.850	49.999	43
		48.000	9.960	55.000	44
		50.000	10.060	50.000	45
		52.000	10.160	50.000	46
		54.000	10.270	54.999	47
		56.000	10.370	50.000	48
		58.000	10.480	55.000	49
860	37 19 11 79	60.000	10.580	50.000	50
		62.000	10.760	49.999	51
		64.000	10.780	10.000	52
		66.000	10.850	35.000	53
		68.000	10.950	50.000	54
		70.000	11.110	80.000	55
		72.000	11.220	55.000	56
		74.000	11.330	55.000	57
		76.000	11.440	54.999	58
		78.000	11.540	50.000	59
860	37 19 11 79	80.000	11.660	60.000	60
		82.000	11.760	49.999	61
		84.000	11.910	75.001	62
		86.000	12.010	49.999	63
		88.000	12.060	35.001	64
		90.000	12.230	75.000	65
		92.000	12.370	70.000	66
		94.000	12.490	60.000	67
		96.000	12.530	20.000	68

SURFACE INTERCEPT FOR SEGMENT 1 = 7.350

SEG	Z START	T START	Z FND	T FND	CONF	R	DCON	GRADIENT	K	S.D.	HFU	R	DHF	T AT 100M	KE
1	28.000	8.850	96.000	12.530	5.500		0.500	54.918		14.897	3.845		1.089	12.746	3.567

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: 860-37

Location: 42N 52E, Intersection Secs. 20, 21, 29, 28

Elevation: 6560Date Drilled: 8-(19,20)-79

Method: Rotary/mud

Depth (m)	Description
0 - 9m	Soil, regolith, tuffaceous sediments. Sedimentary material 20-40% clay contains remnant tuff fragments which contain feldspar, some quartz and unaltered biotite.
9 - 18m	Tuffaceous sediments partially weathered. 20-30% clay. Appearance of some dark gray aphanitic lithic fragments too small to identify.
18 - 36m	Greenish gray tuff, higher clay content, 50%. Dark gray, more competent lithic material still present in minor amounts.
36 - 42m	Greenish gray fine grained crystal tuff. 74% finer than med. sand. Feldspar crystals, numerous fine mafics.
42 - 45m	Same with 40% med. sand or finer. 20% total sample is clay.
45 - 51m	Same with 60% med sand or finer, 30% sample clay.
51 - 57m	Same, 75% silt and clay.
57 - 60m	Light greenish gray crystal tuff, decrease in small mafic grains, 50% of sample is clay and silt.
60 - 69m	Fine grained, tan colored tuff. No mafics, no crystals visible. 70% finer than med sand, most of the fines are clay size.
69 - 90m T.D.	Same lith as above, 75% samples clay A highly altered tan colored tuff.

Exposure to sun - excellent

Vegetation - Sage

Land use - Cattle grazing

Comments - Lost 100% circulation at 4.5m

TUSCARORA, NV
1 KM NW OF BM 6674

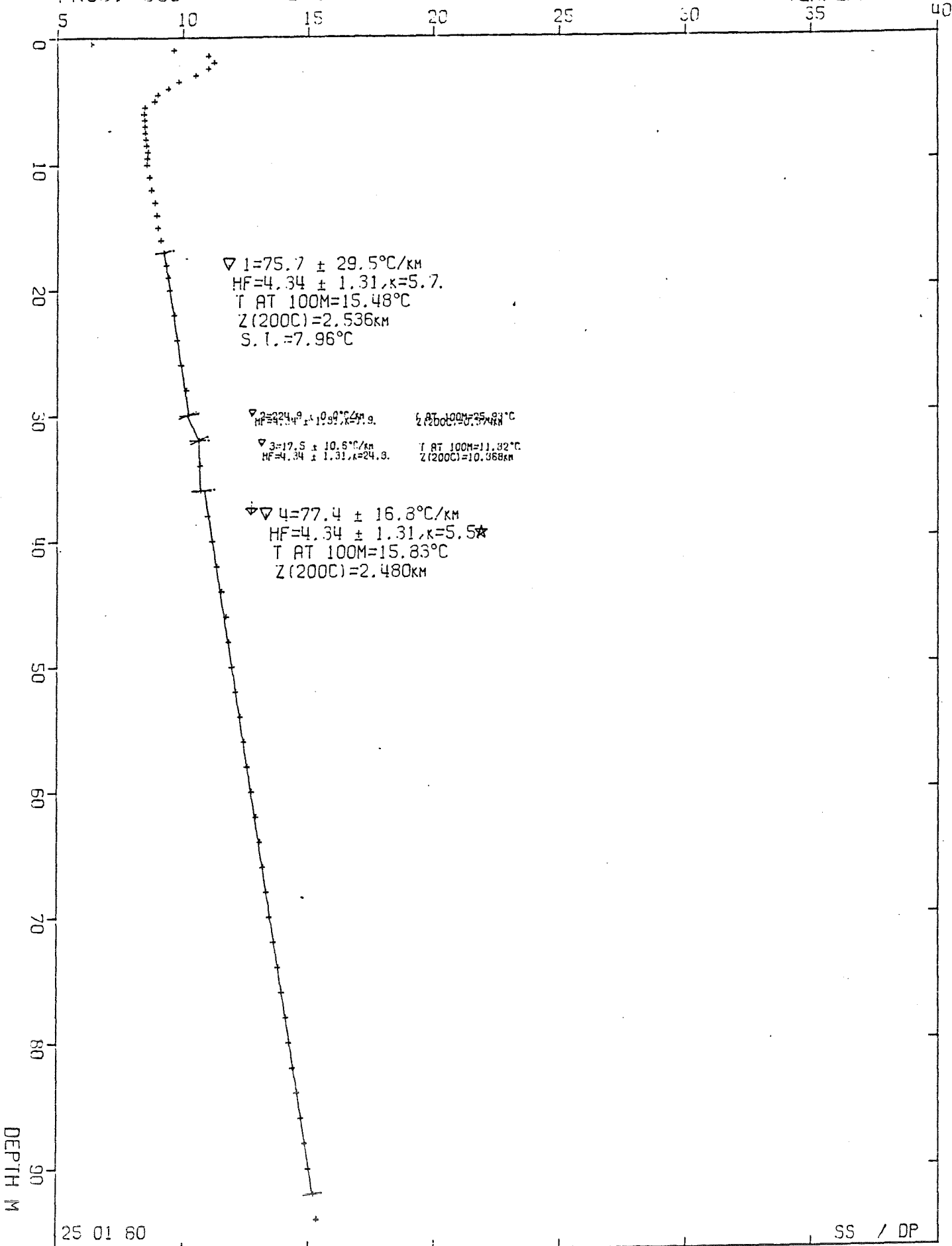
N. LAT 41.517; W. LONG 116.135

PROJ. 360

WELL 36

3 11 79

TEMPERATURE °C



25 01 80

SS / DP

DEPTH M

GEOHERMAL LOG, ANAX EXPLORATION, INC., A.L.LANGE
25 01 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITION	BRL DATE	LP	LI	ISE	IST
860	38	3	11	79	1 KM NW OF RM 6674	05 / 00	22 8 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
3.0000	15.4000	41.5170	116.1547	1944.6

J	SEG START	SEG END	CONDUCTVY & STD DEV.	
1	17.000	30.000	0.000	0.000
2	30.000	32.000	0.000	0.000
3	32.000	38.000	0.000	0.000
4	38.000	92.000	5.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	38	3	11	79	0.500	8.350	9999.000	1
					1.000	9.450	6600.000	2
					1.500	11.000	2700.000	3
					2.000	11.230	459.999	4
					2.500	11.000	-459.999	5
					3.000	10.510	-980.003	6
					3.500	9.340	-1340.000	7
					4.000	9.400	-879.997	8
					4.500	8.980	-840.000	9
					5.000	8.860	-240.002	10
860	38	3	11	79	5.500	8.470	-779.999	11
					6.000	8.440	-60.001	12
					6.500	8.450	20.000	13
					7.000	8.460	20.000	14
					7.500	8.480	40.001	15
					8.000	8.500	40.001	16
					8.500	8.530	59.998	17
					9.000	8.580	100.992	18
					9.500	8.560	-40.001	19
					10.000	8.550	-20.000	20
860	38	3	11	79	11.000	8.660	110.001	21
					12.000	8.720	59.999	22
					13.000	8.880	160.000	23
					14.000	8.930	49.999	24
					15.000	8.950	60.001	25
					16.000	9.110	115.999	26
					17.000	9.210	100.000	27
					18.000	9.330	120.001	28
					19.000	9.400	70.000	29
					20.000	9.470	70.000	30

860	38	3	11	79	22.000	9.650	90.000	31
					24.000	9.760	54.999	32
					26.000	9.920	80.000	33
					26.000	10.130	105.000	34
					30.000	10.180	25.000	35
					32.000	10.630	225.000	36
					34.000	10.680	25.000	37
					36.000	10.700	10.000	38
					38.000	10.990	145.000	39
					40.000	11.160	85.000	40
860	38	3	11	79	42.000	11.330	85.000	41
					44.000	11.520	54.999	42
					46.000	11.700	90.000	43
					48.000	11.810	55.000	44
					50.000	11.940	65.000	45
					52.000	12.090	75.000	46
					54.000	12.280	95.000	47
					56.000	12.420	70.000	48
					58.000	12.570	75.001	49
					60.000	12.740	85.000	50
860	38	3	11	79	62.000	12.910	85.000	51
					64.000	13.070	80.000	52
					66.000	13.180	54.999	53
					68.000	13.320	70.001	54
					70.000	13.460	70.000	55
					72.000	13.620	80.000	56
					74.000	13.800	90.000	57
					76.000	13.950	75.000	58
					78.000	14.110	80.000	59
					80.000	14.250	70.001	60
860	38	3	11	79	82.000	14.390	70.000	61
					84.000	14.560	85.000	62
					86.000	14.710	75.000	63
					88.000	14.870	80.000	64
					90.000	15.020	75.000	65
					92.000	15.210	95.000	66
					94.000	15.350	70.000	67

SURFACE INTERCEPT FOR SEGMENT 1 = 7.955

SEG	ZSTART	TSTART	ZEND	TEND	COND	DOCN	GRADIENT	S.D.	RFU	DHF	T AT 100M	KM
1	17.000	9.210	30.000	10.180	5.730	0.000	75.749	29.537	4.340	1.309	15.482	2.536
2	30.000	10.180	32.000	10.630	1.930	0.000	224.945	0.000	4.340	1.309	25.926	0.874
3	32.000	10.630	36.000	10.700	24.836	0.000	17.475	10.506	4.340	1.309	11.818	10.868
4	36.000	10.700	92.000	15.210	5.500	0.580	77.291	16.771	4.340	1.309	15.829	2.480

LITHOLOGIC LOG

Project: Tuscarora860-38Location: 42N 52E Sec. 28, NW,NW,NEElevation: 6380'Date Drilled: 8-22-79Method: Rotary, mud

Depth (m)

Description

0 - 18

Highly devitrified crystal tuff. Predominantly clay, decomposing. Some green coloration. Crystals of quartz, tiny mafics, clayey feldspar.

18 - 30

Brown volcanoclastic sediments. Subangular and subrounded quartz, silt and clay. Tiny mafic crystals. Not well lithified.

30 - 39

White and pale gray-green crystal tuff. Devitrified. Clayey feldspar crystals, aligned biotite flakes, some quartz.

39 - TD

Crystal tuff. Large crystals of biotite, quartz, feldspar. Devitrifying but still competent. Some green coloration.

Exposure to sun: excellent

Vegetation: Sage

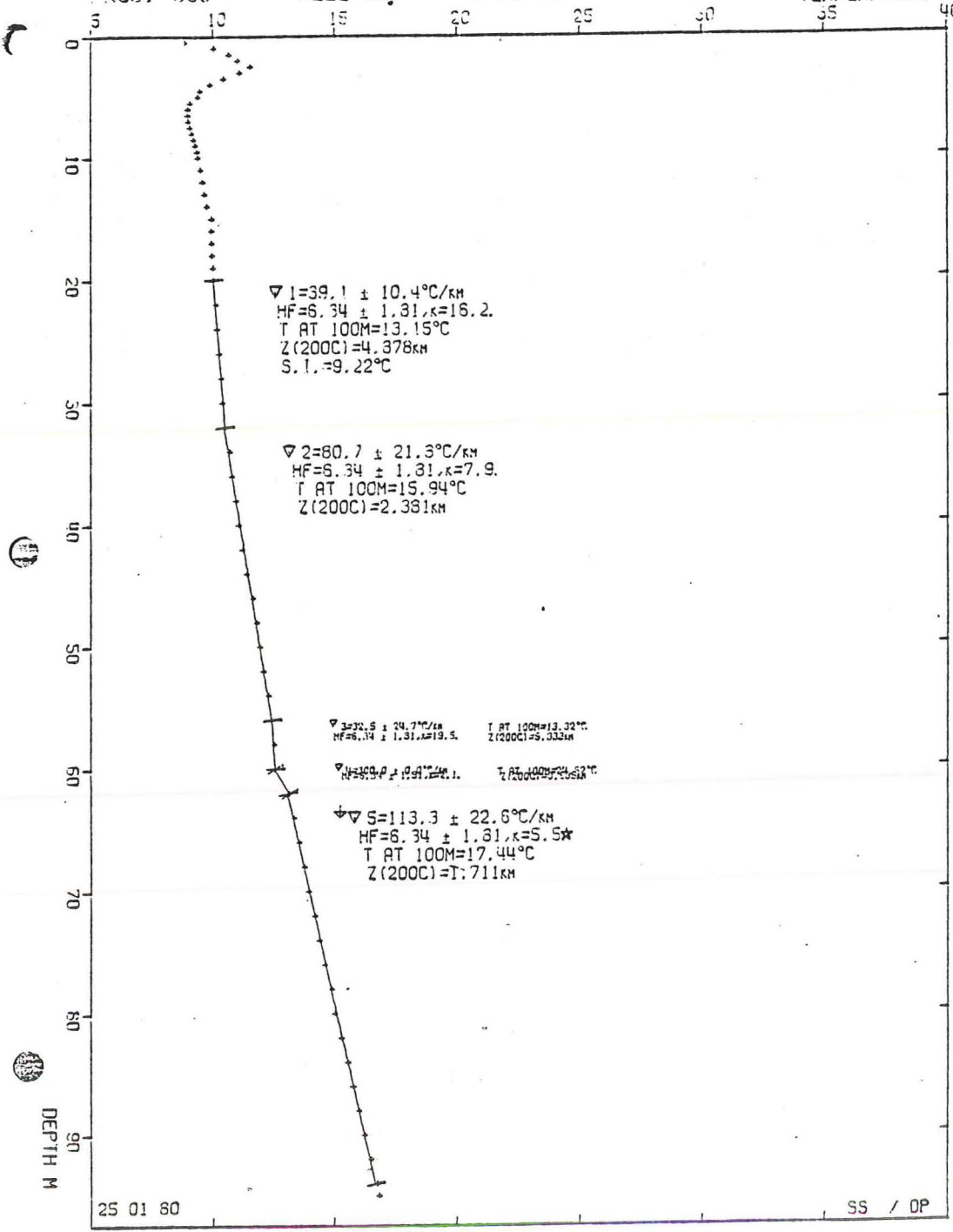
Land use: Cattle grazing

Ground water: Unknown

TUSCARORA, NV
3 KM S OF 5554 FT ELEVATION
PROJ. 560 WELL 59 1 11 79

N. LAT 41.511 W. LONG 116.222

TEMPERATURE °C



GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25_01_80
PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITION IRL DATE LP LI ISZ IST
 860 39 1 11 79 . 8 KM S OF 5834 FT ELEVATION 15 / 01 26 8 79 1 0 1 1

YCM XCM N.LAT W.LONG ELEV
 1.9000 3.8000 91.5107 116.2216 1813.5

J	SEG START	SEG END	CONDUCTIVITY & STD DEV.	
1	20.000	32.000	0.000	0.000
2	32.000	56.000	0.000	0.000
3	56.000	60.000	0.000	0.000
4	60.000	62.000	0.000	0.000
5	62.000	94.000	5.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
 *** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.	
860		39	1	11	79	0.500	8.820	9999.000	1
						1.000	10.020	2399.998	2
						1.500	10.650	1260.002	3
						2.000	11.000	700.001	4
						2.500	11.510	1019.997	5
						3.000	11.080	-859.997	6
						3.500	10.420	-1320.004	7
						4.000	9.870	-1099.999	8
						4.500	9.460	-820.000	9
						5.000	9.370	-180.000	10
860		39	1	11	79	5.500	9.020	-700.001	11
						6.000	8.950	-139.999	12
						6.500	8.940	-20.000	13
						7.000	8.970	60.001	14
						7.500	9.030	119.999	15
						8.000	9.100	139.999	16
						8.500	9.160	160.000	17
						9.000	9.260	160.000	18
						9.500	9.330	140.003	19
						10.000	9.370	79.998	20
860		39	1	11	79	11.000	9.480	110.001	21
						12.000	9.560	80.000	22
						13.000	9.640	90.000	23
						14.000	9.750	110.001	24
						15.000	9.930	179.998	25
						16.000	9.920	-10.000	26
						17.000	9.930	10.000	27
						18.000	9.960	30.001	28
						19.000	9.990	30.001	29

860	39	1	11	79	20.000	10.000	10.000	30
					22.000	10.100	49.999	31
					24.000	10.160	30.001	32
					26.000	10.240	40.000	33
					28.000	10.320	40.000	34
					30.000	10.380	30.000	35
					32.000	10.450	55.000	36
					34.000	10.680	94.999	37
					36.000	10.780	50.000	38
					38.000	10.920	70.000	39
					40.000	11.040	60.000	40
860	39	1	11	79	42.000	11.200	80.000	41
					44.000	11.580	90.000	42
					46.000	11.630	125.000	43
					48.000	11.790	80.000	44
					50.000	11.910	60.000	45
					52.000	12.000	75.000	46
					54.000	12.270	105.000	47
					56.000	12.390	60.000	48
					58.000	12.490	50.000	49
860	39	1	11	79	60.000	12.520	14.999	50
					62.000	13.120	300.000	51
					64.000	13.310	95.000	52
					66.000	13.510	99.999	53
					68.000	13.740	115.001	54
					70.000	13.910	85.000	55
					72.000	14.180	134.999	56
					74.000	14.360	90.000	57
					76.000	14.590	115.000	58
					78.000	14.880	145.000	59
860	39	1	11	79	80.000	15.010	65.000	60
					82.000	15.280	135.000	61
					84.000	15.530	125.000	62
					86.000	15.740	105.000	63
					88.000	15.990	125.000	64
					90.000	16.210	110.000	65
					92.000	16.490	139.999	66
					94.000	16.760	135.000	67
					96.000	16.830	70.000	68

SURFACE INTERCEPT FOR SECT 1 = 9.225

SEG	Z START	T START	Z END	T END	COND	DOOR	GRADIENT	S.D.	HU	DHF	T AT 100M	KM
1	20.000	10.000	32.000	10.490	16.225	0.000	29.105	10.380	6.345	1.811	13.145	4.878
2	30.000	10.490	56.000	12.390	7.864	0.000	50.000	21.783	6.345	1.811	15.940	2.281
3	56.000	12.390	60.000	12.520	19.535	0.000	52.477	24.740	6.345	1.811	13.819	5.833

SEG	ZSTART	TSTART	ZEND	TEMD	COND	BCON	GRADIENT	S.0*	HFU	CHF	T AT 100M	KH
4	60.000	12.520	62.000	13.120	2.115	0.000	209.899	0.000	6.345	1.811	24.51E	0.685

SEG	ZSTART	TSTART	ZEND	TEMD	COND	BCON	GRADIENT	S.0*	HFU	CHF	T AT 100M	KH
5	62.000	13.120	94.000	16.760	5.500	0.500	113.306	22.825	6.345	1.811	17.440	1.711

PRECEDING SEGMENT USED FOR EXTRAPOLATION

Project: TUSCARORA
Hole 860-39

Location: 42N 51E sec. 26
NW, NW, SW
Elevation: 5940'

Date Drilled: August 28, 1979
Method: rotary/mud

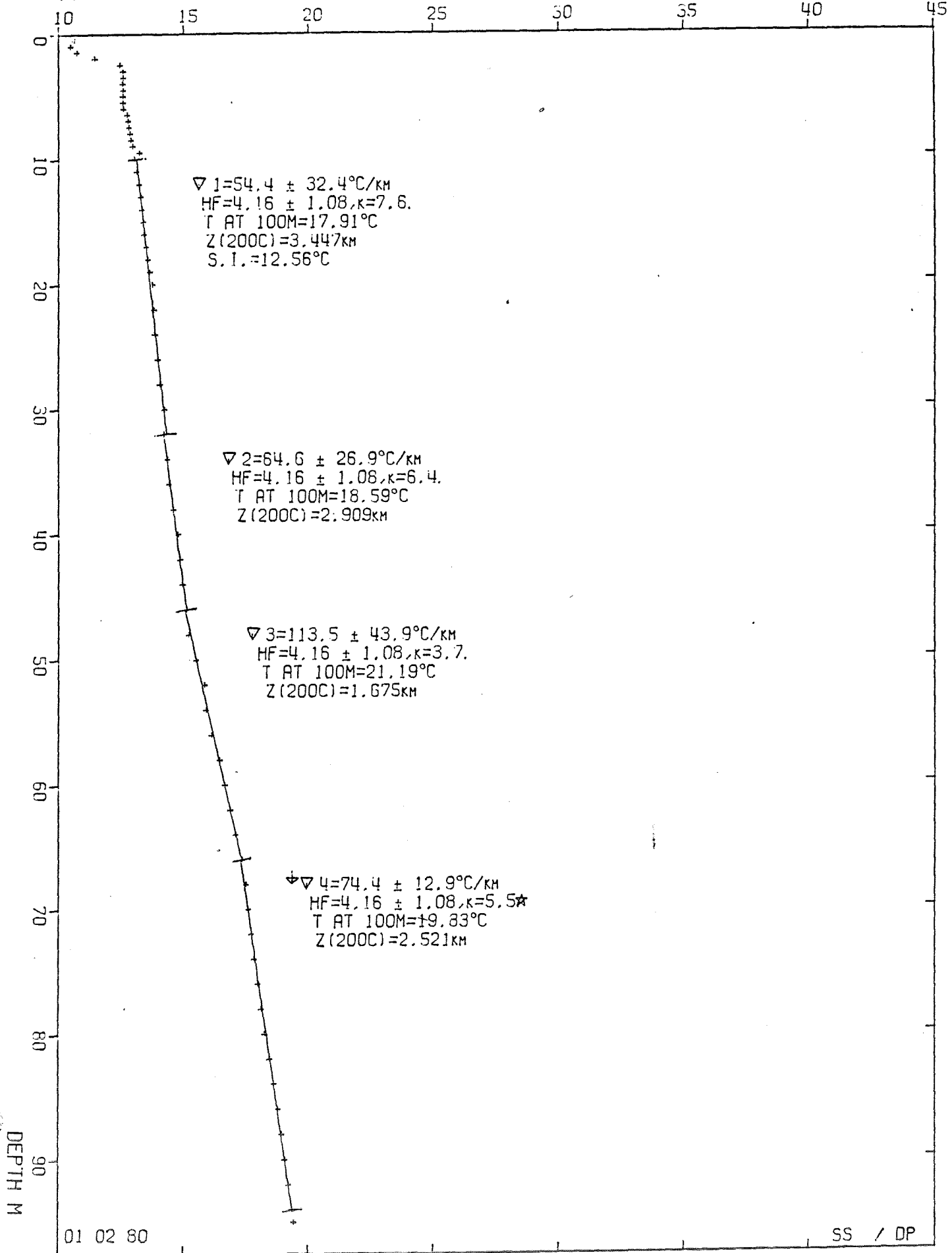
Depth(m)	Description
0 - 3	Soil composed of clay, silt and rounded granules of various volcanic tuffs.
3 - 6	Highly devitrified light gray crystal tuff. Cuttings clayey and decomposing. 15% small feldspar crystals altered to clay. Extremely small mafics minor portion.
6 - 9	Sample 90% clay, dark gray. Remaining portion translucent crystals of birefringent mineral, possibly sanadine(?). Few mafic crystals, probably hornblende.
9 - 39	Devitrified crystal vitric tuff. Gray and orange-brown stained. Mostly clay. Devitrified folded glass shards, small clayey feldspar phenocrysts and tiny mafic mineral(s).
39 - 45	Same as above, reappearance of birefringent crystals probably uphole contamination.
45 - 66	Same as 9 - 39.
66 - 81	Essentially the same, silver gray color, no Fe-staining.
81 - 87	Same as above, also a highly devitrified canary yellow clayey material with no crystals visible.
87 - 90	Same as 9 - 81 with exception that more altered feldspar crystals are visible, small needle-like mafic crystals are also present, increasing to T.D.
	Exposure to sun: good Vegetation: sparse grass and sage Land use: cattle grazing Ground water: unknown

TOUOHKUKH, NV
200 M S OF CENTER LINE SEC2734

N. LAT 41.503; W. LONG 116.233

PROJ. 860 WELL 40 1 11 79

TEMPERATURE °C



01 02 80

SS / DP

GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L. LANGRISH
 25 01 80
 PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE
 860 40 1 11 79 200 M S OF CENTER LINE SEC2734
 YCM XCM N.LAT W.LONG
 0.5000 2.6000 41.5028 116.2305
 ELEV 1761.7

SECTION
 SS / EP 28 8 79 1 U 1 1

J	SEG START	SEG END	CONDUCTIVITY	STD DEV.
1	10.000	32.000	0.000	0.000
2	32.000	45.000	0.000	0.000
3	45.000	66.000	0.000	0.000
4	66.000	94.000	5.500	0.500

*** PREVIOUS SEGMENT USED TO COMPUTE OTHERS ***

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	40	1	11	79	0.500	10.620	99999.000	1
					1.000	10.470	-299.999	2
					1.500	10.710	480.000	3
					2.000	11.440	1459.999	4
					2.500	12.430	1980.000	5
					3.000	12.550	240.002	6
					3.500	12.570	40.001	7
					4.000	12.550	-40.001	8
					4.500	12.560	20.000	9
					5.000	12.560	0.000	10
860	40	1	11	79	5.500	12.550	-20.000	11
					6.000	12.560	60.001	12
					6.500	12.730	299.999	13
					7.000	12.770	79.998	14
					7.500	12.800	60.001	15
					8.000	12.850	99.998	16
					8.500	12.880	60.001	17
					9.000	12.960	160.000	18
					9.500	13.230	540.001	19
					10.000	13.030	-400.002	20
860	40	1	11	79	11.000	13.120	90.000	21
					12.000	13.210	90.000	22
					13.000	13.260	70.000	23
					14.000	13.320	40.001	24
					15.000	13.390	70.000	25
					16.000	13.410	20.000	26
					17.000	13.500	90.000	27
					18.000	13.580	60.000	28
					19.000	13.650	70.000	29
					20.000	13.760	109.999	30

R60	40	1	11	79	22.000	13.820	30.001	31
					24.000	13.860	20.000	32
					26.000	13.970	55.000	33
					28.000	14.060	45.000	34
					30.000	14.220	80.000	35
					32.000	14.210	-5.000	36
					34.000	14.360	75.000	37
					36.000	14.410	25.001	38
					38.000	14.600	94.999	39
					40.000	14.790	95.000	40
R60	40	1	11	79	42.000	14.870	40.000	41
					44.000	14.970	50.000	42
					46.000	15.100	65.000	43
					48.000	15.200	50.000	44
					50.000	15.490	145.000	45
					52.000	15.630	170.000	46
					54.000	15.900	35.000	47
					56.000	16.110	104.999	48
					58.000	16.440	165.001	49
					60.000	16.640	100.000	50
R60	40	1	11	79	62.000	16.860	109.999	51
					64.000	17.090	115.000	52
					66.000	17.330	120.001	53
					68.000	17.500	85.001	54
					70.000	17.590	44.998	55
					72.000	17.710	60.001	56
					74.000	17.830	59.999	57
					76.000	17.980	75.001	58
					78.000	18.120	70.000	59
					80.000	18.270	74.999	60
R60	40	1	11	79	82.000	18.450	90.000	61
					84.000	18.630	90.000	62
					86.000	18.800	85.001	63
					88.000	18.950	74.999	64
					90.000	19.090	70.000	65
					92.000	19.220	65.001	66
					94.000	19.380	80.000	67
					95.000	19.430	49.999	68

SURFACE INTERCEPT FOR SEGMENT 1 = 12.565

SEG	Z START	T START	Z END	T END	COND	%	DCON	GRADIENT	S.D.	RFU	%	CHF	T AT 100M	KF
1	10.000	13.030	32.000	14.210	7.641		0.000	14.400	32.373	4.157		1.079	17.909	2.447
2	32.000	14.210	46.000	15.100	6.437		0.000	64.999	26.903	4.157		1.079	18.587	2.509
3	46.000	15.100	66.000	17.330	3.661		0.000	115.049	43.900	4.157		1.079	21.191	1.675
4	66.000	17.330	94.000	19.380	5.500		0.000	74.410	12.962	4.157		1.079	19.826	2.521

Project: TUSCARORA
Hole 860-40

Location: 42N 51E sec 34
NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$
Elevation: 5780'

Date Drilled: 8-23-79
Method: rotary/mud

Depth(m)	Description
0 - 3	Organic rich soil composed of silt and clay, rounded granules of various volcanic alluvial debris.
6 - 39	Light to medium gray hornblende-pyroxene crystal vitric tuff. 20% phenocrysts of K-spar, pyroxene, plagioclase and hornblende. Fine grained groundmass contains welded glass shards and appears banded in some cuttings. Devitrification not extensive, however some glass and smaller square shaped feldspars altered to clay. Large euhedral plag. phenocrysts striated and yellow or orange in color, generally crystalline, some altering to clay. Some zonation apparent. Cuttings often broken with conchoidal fracture. Groundmass flecked with tiny mafics.
39 - 57	Same as above except devitrification more extensive. Generally a stony looking groundmass instead of glassy. Pyroxene appears to be predominant mafic mineral, occurs in euhedral phenocrysts. Cuttings 30% white chalky devitrifying feldspar and groundmass. Still well lithified, not friable.
57 - 66	Light gray-brown crystal tuff, highly devitrified. Small clayey feldspars and tiny mafics present. Groundmass extensively altered to clay. Very crumbly. Potentially a volcano-clastic sediment composed of clay and silt sized particles and fine feldspars, no quartz.
66 - 81	As 39 - 57m.
81 - 93	Similar to 39 - 57m. with more glassy groundmass, less devitrification. Not as preserved as 6 - 39m. however.
	Exposure to Sun: shaded in early morning, late evening and by tall sage.
	Vegetation: tall sage Land use: cattle grazing Ground water: unknown. Site 5m. east of creek with intermittent flow, likely saturated below 5m.

LITHOLOGIC LOG

Project: Tuscarora

860-5b (offset)

Elevation: 5835

Date Drilled: 6/14/78

SWSE S9 T41N R52E

Depth (m)	Description
0 - 25	Alluvium

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

AT Well No. 860-5b (off)

Property-Project Tuscarora Depth Logged 25 m

Map Tuscarora Scale 15 Date: Drilled 14/6/78 Logged 16/6/78

State Nevada County Elko of SW of SE of Sec 9 T4N R52E

Instrument #46 Operator JJK Elevation 5835 (ft/m)

Comments hole 50 feet west of 860-5 - hole lost at 25 meters

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68	19	06	78

*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description	Operator	Editor	DA	MO	YR
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68	JJK	JOP	14	6	78

(Approx. location, water well?, oil test?, etc.)

Card B

Scale Unit IN CM Map Size (75, 15, 60) Degree 41 Min 15.0 Degree 116 Min 15.0

Map Location **

N Lat W Long

Use decimals

Northing 37.2 Easting 15.8 Elev 5835

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Write M if meters

Segment 1 = Depths

Start	End	Conductivity K	ΔK	Best cond. (-K)	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	10.0	25.0	3.5	-0.5	

Segment 2

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	.999				
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Segment 3

Segment 4

Segment 5

Segment 6

Segment 7

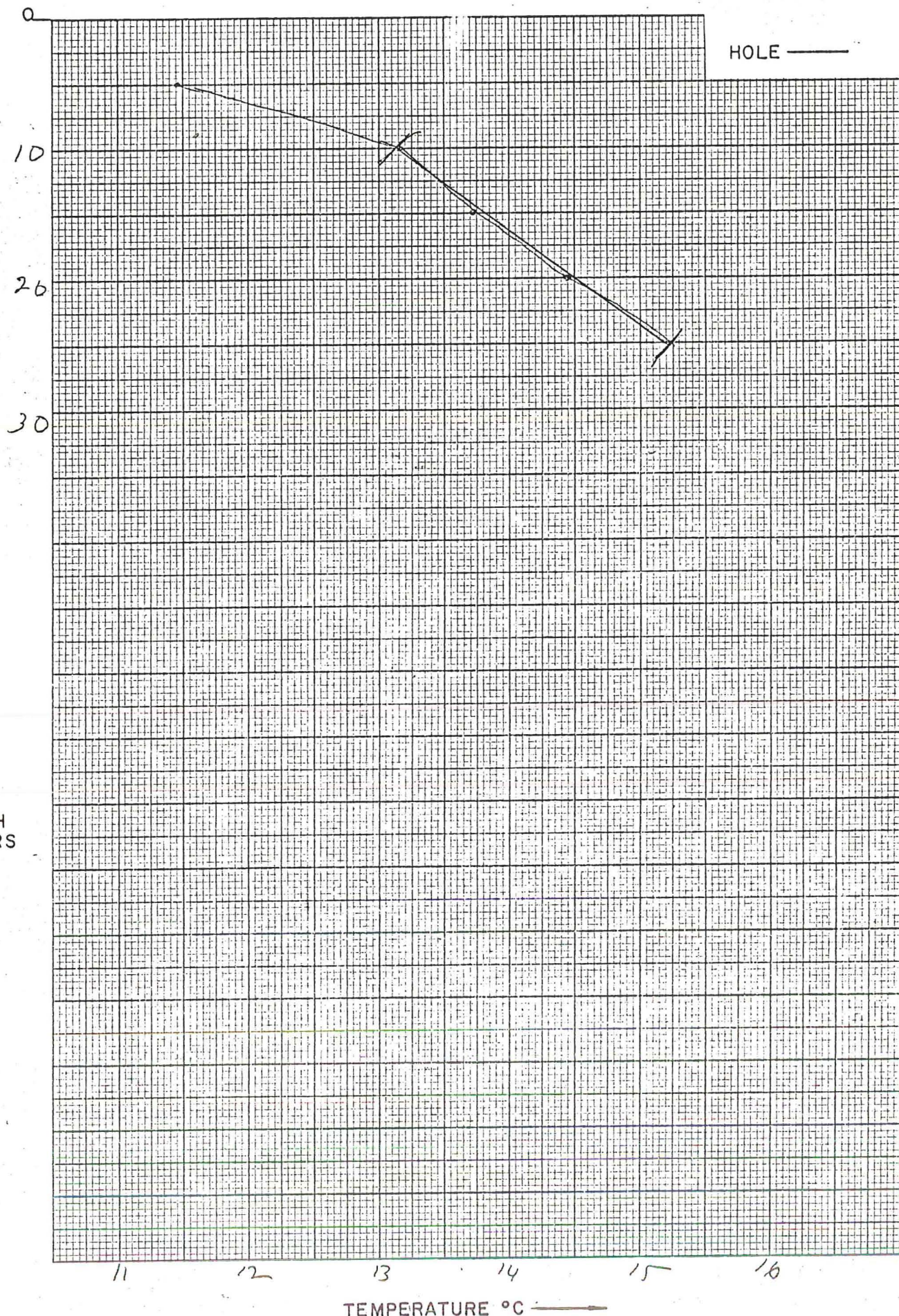
Segment 8

Segment 9

Segment 10

After final segment Start = .999

DEPTH
METERS

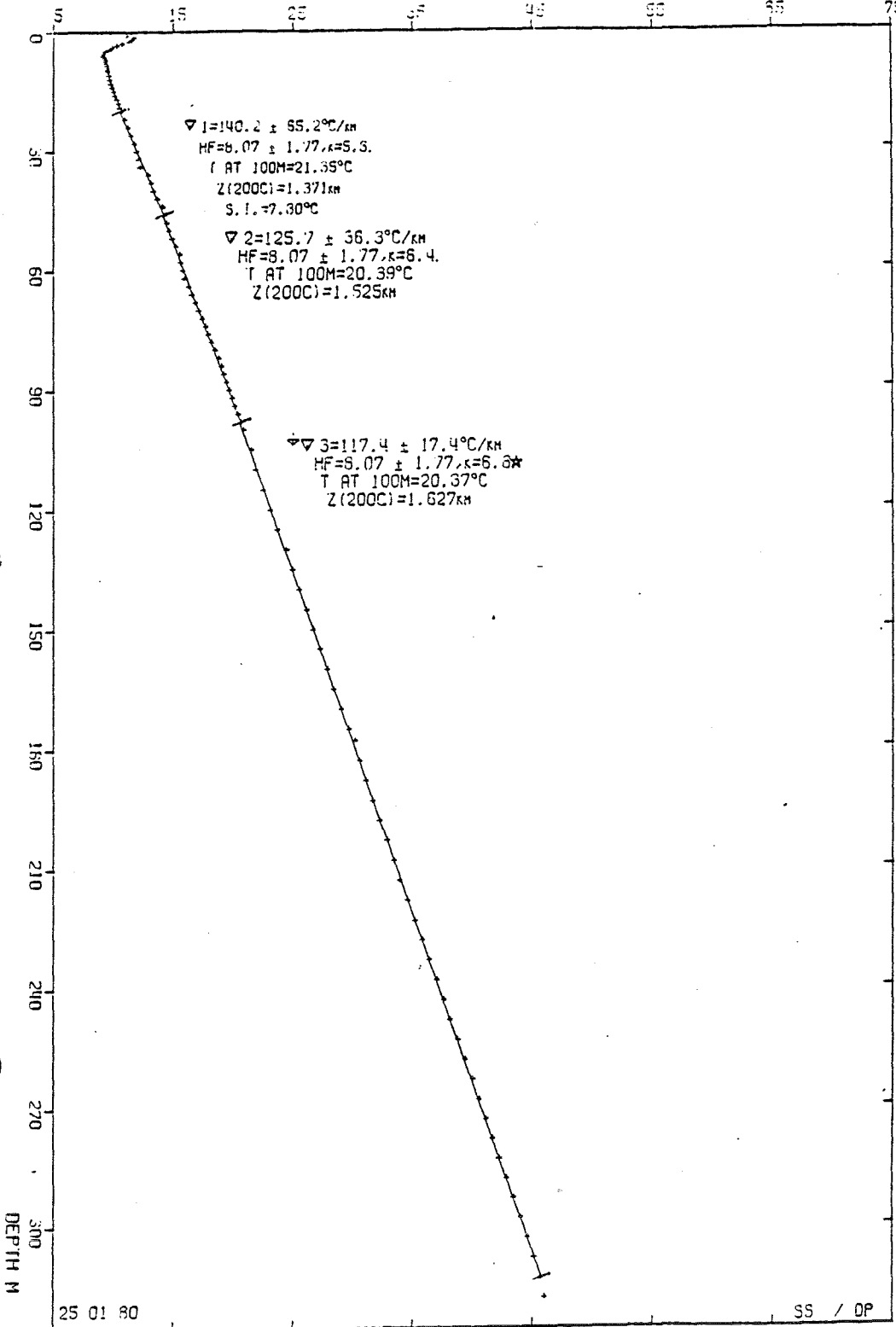


TEMPERATURE °C ———

TUSCARORA, NV
2.4 KM NW HOT SULPHUR SPRINGS
PROJ. 360 WELL 32 18 9 79

N. LAT 41.467 W. LONG 115.163

TEMPERATURE °C



GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25. 01. 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE EDITOR DRL DATE LP LI ISZ IST
 860 32 18 9 79 2.4 KM NW HOT SULPHUR SPRINGS SS / BP 10 8 79 1 0 1 1

YCM YCM N.LAT W.LONG ELEV
 41.9000 10.9000 41.4868 116.1684 1522.7

J	SEG START	SEG END	CONDUCTVY	STD DEV.
1	20.000	46.000	0.000	0.000
2	46.000	96.000	0.000	0.000
3	96.000	313.000	6.000	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DFG C/KM	SAMPLE NO.
860		32	18	9 79	1.000	11.090	99999.000	1
					1.500	11.680	1160.000	2
					2.000	11.570	-219.997	3
					2.500	11.270	-600.002	4
					3.000	10.740	-1059.998	5
					3.500	10.330	-820.000	6
					4.000	9.950	-760.002	7
					4.500	9.640	-619.999	8
					5.000	9.370	-540.001	9
					5.500	9.180	-380.001	10
860		32	18	9 79	6.000	9.160	-39.997	11
					6.500	9.240	160.000	12
					7.000	9.390	299.999	13
					7.500	9.390	0.000	14
					8.000	9.410	40.001	15
					8.500	9.440	59.998	16
					9.000	9.460	80.002	17
					9.500	9.510	59.998	18
					10.000	9.540	60.001	19
					11.000	9.620	80.000	20
860		32	18	9 79	12.000	9.700	80.000	21
					13.000	9.810	110.001	22
					14.000	9.920	109.999	23
					15.000	10.040	120.001	24
					16.000	10.160	120.001	25
					17.000	10.290	129.999	26
					18.000	10.410	120.001	27
					19.000	10.530	119.999	28
					20.000	10.690	160.000	29
					22.000	10.940	125.000	30
860		32	18	9 79	24.000	11.220	140.000	31

			26.000	11.450	115.000	32		
			28.000	11.750	150.001	33		
			30.000	11.920	84.999	34		
			32.000	12.120	100.000	35		
			34.000	12.270	75.000	36		
			36.000	12.910	320.001	37		
			38.000	13.160	125.000	38		
			40.000	13.380	110.000	39		
			42.000	13.700	160.000	40		
860	32	18	9	79	44.000	14.110	265.000	41
					46.000	14.280	85.000	42
					48.000	14.450	85.000	43
					50.000	14.640	95.000	44
					52.000	14.870	115.000	45
					54.000	15.190	160.000	46
					56.000	15.550	180.000	47
					58.000	15.610	30.000	48
					60.000	15.830	110.001	49
					62.000	15.900	35.000	50
860	32	18	9	79	64.000	16.270	184.999	51
					66.000	16.540	135.000	52
					68.000	16.620	140.001	53
					70.000	17.080	129.999	54
					72.000	17.400	100.000	55
					74.000	17.670	135.000	56
					76.000	17.910	120.001	57
					78.000	18.180	134.998	58
					80.000	18.450	135.000	59
					82.000	18.760	155.001	60
860	32	18	9	79	84.000	19.020	135.000	61
					86.000	19.210	90.000	62
					88.000	19.400	94.999	63
					90.000	19.650	125.000	64
					92.000	19.950	150.000	65
					94.000	20.170	110.001	66
					96.000	20.400	115.000	67
					98.000	20.640	120.001	68
					100.000	20.870	115.000	69
860	32	18	9	79	105.000	21.480	122.000	70
					110.000	21.850	74.000	71
					115.000	22.440	118.000	72
					120.000	23.110	134.000	73
					125.000	23.670	112.000	74
					130.000	24.450	156.000	75
					135.000	24.930	96.000	76
					140.000	25.450	104.000	77
					145.000	26.090	128.000	78
					150.000	26.610	104.000	79
					155.000	27.230	124.001	80
860	32	18	9	79	160.000	27.840	121.999	81
					165.000	28.350	110.001	82
					170.000	29.000	122.000	83
					175.000	29.600	120.000	84
					178.000	30.170	190.000	85
					183.000	30.570	80.000	86

		188.000	31.080	102.000	87
		193.000	31.650	114.000	88
		198.000	32.270	124.000	89
		203.000	32.850	116.000	90
860	32 18 9 79	208.000	33.440	117.999	91
		213.000	33.920	96.001	92
		218.000	34.600	136.000	93
		223.000	35.210	122.000	94
		228.000	35.810	120.000	95
		233.000	36.400	117.999	96
		238.000	37.030	126.001	97
		243.000	37.640	122.000	98
		248.000	38.170	106.000	99
		253.000	38.800	125.999	100
860	32 18 9 79	258.000	39.400	120.000	101
		263.000	40.000	120.001	102
		268.000	40.580	115.999	103
		273.000	41.150	114.000	104
		278.000	41.730	116.000	105
		283.000	42.290	112.000	106
		288.000	42.900	122.000	107
		293.000	43.460	112.001	108
		298.000	44.030	114.000	109
		303.000	44.600	114.000	110
860	32 18 9 79	308.000	45.150	109.999	111
		313.000	45.730	116.000	112
		318.000	46.000	54.001	113

SURFACE INTERCEPT FOR SEGMENT 1 = 7.796

SEG	ZSTART	I START	ZEND	TEND	COND	DCOM	GRADIENT	S.D.	HFO	CHF	T AT 100M	KM
1	20.000	10.650	46.000	14.280	5.758	0.380	140.154	65.181	8.070	1.772	21.846	1.371
2	46.000	14.280	98.000	20.640	6.421	0.000	129.653	36.829	8.070	1.772	20.891	1.525
3	98.000	20.640	313.000	45.730	6.800	0.500	117.401	17.452	8.070	1.772	20.870	1.527

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: 860-32Location: 41N 52E 6 NE $\frac{1}{4}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$

Method: Rotary/mud

Elevation: 5980'Date Drilled: August 9-10, 1979

Depth (m)	Description
0 - 10m	<p><u>Alluvium.</u> Silty, gravelly alluvium. Upper meter a soil layer high in organic material. Sample appears med-gray and white.</p> <p>55% fine sand and silt 20% gravels, mostly granule size, few small pebbles 20% coarse and very coarse sand 5% clay or less</p> <p>Lithic components: - assorted tuffs and/or water reworked tuffaceous sediments. Contain quartz, feldspars, hornblende, volcanic flow rock and other lithic fragments. Rounded gravels of tuff altering lime green and rust brown. Friable and porous.</p> <ul style="list-style-type: none"> - primary crystal lithic tuffs, well indurated, appear as rounded gravels. Contain euhedral feldspars, biotite, volcanic lithic debris (rhyolite) feldspars altering light pink and green. - sand and gravels of volcanic flow rocks, feldspars highly altered to green and amber minerals and clays. (Possibly andesites and rhyolites). - some dark gray, well indurated siltstone - some may contain pyrite.
10 - 25m	<p><u>Predominantly clay.</u> Light battleship gray, green tint apparent when wet. Easily pressed between the fingers. A few small black pyroxene grains are visible, also extremely small clear to slightly green or pink tinted sphericle grains. Some gray glassy material - possible volcanic lithic debris. This material is highly altered and decomposed.</p> <p>Possibly was a primary crystal lithic tuff. May have been sediments of reworked tuff of same description or lithics present may be sand from other volcanic materials.</p>
25 - 30m	<p><u>Predominantly loosely cemented sand.</u> Greenish-gray appearance, distinct green color when wet. Probable celadinite mineralization. Sub angular and sub-round coarse sand and very fine gravel, possible of andesite (?) Dark gray, fine grained glassy matrixed volcanic flow rock containing altered euhedral feldspars generally appearing green in color. Very porous.</p>
30 - 42m	<p><u>Probably re-worked tuff,</u> could be primary deposit. Light gray, very friable and porous, light weight. Contains a few biotite, possibly pyroxene grains. Some rounded fine grained, sand size, glassy, dark gray volcanic lithic debris. Could be primary crystal, lithic tuff not well indurated. More likely lithics represent sand in a clayey, silty sediment, poorly indurated of predominantly tuffaceous origin.</p>

LITHOLOGIC LOG

Project: 860-32 - Continued

Elevation: _____

Date Drilled: _____

Depth (m)	Description
42 - 53m	Similar to 25-30m. Finer cuttings. May represent a poorly cemented deposit of sand or may have been a volcanic flow, highly altered and easily pulverized by bit. Drilled very easily. More clay and silt present than in 25-30 perhaps 20% clay and silt.
53 - 55.5	Similar to 30-42m. At least 25% clay, small portion sand.
55.5 - 67.5	Highly altered volcanic flow rock. Celadinite alteration. Some devitrified pumaceous material. Rounded gravels of aphanitic dark gray volcanic rock-small percentage. Majority of cuttings high in feldspar phenocrysts.
67.5 - 81m	Similar to 30-42m and 53-55.5m. Light gray probably reworked crystal lithic tuff or possibly primary tuff. Dark gray glassy rounded sand about 10%. Some tiny black mineral grains. Green alteration. Some quartz sand. Devitrified ash in tuff is predominantly chalky clay.
81 - 84	White, low in clay, better lithified and cleaner tuff, probably primary deposit. Some tiny black mafics. No sand or lithic debris.
84 - 135m	As 30-42m, 53-55.5m and 67.5-81m. Somewhat higher content of altered, sand size volcanic lithic debris.
135 - 312m T.D.	Primary deposit of crystal tuff. Celadinite mineralization. Somewhat friable but lithified and brittle compared to other tuffaceous deposits of shallower depths. Tiny black mafics visible, feldspars, some quartz. Primarily ash matrix.
	Sun Exposure - excellent, very well exposed
	Vegetation - sparse grass and brush
	Land use - cattle
	Groundwater - nearby surface seeps producing bog like conditions. Water standing in hole at 2m. No significant drilling fluid gained or lost while drilling
	Comments - Exceptionally fast and easy drilling.

TUSCARORA, NV

3 KM NW ELEVATION MARK 5962

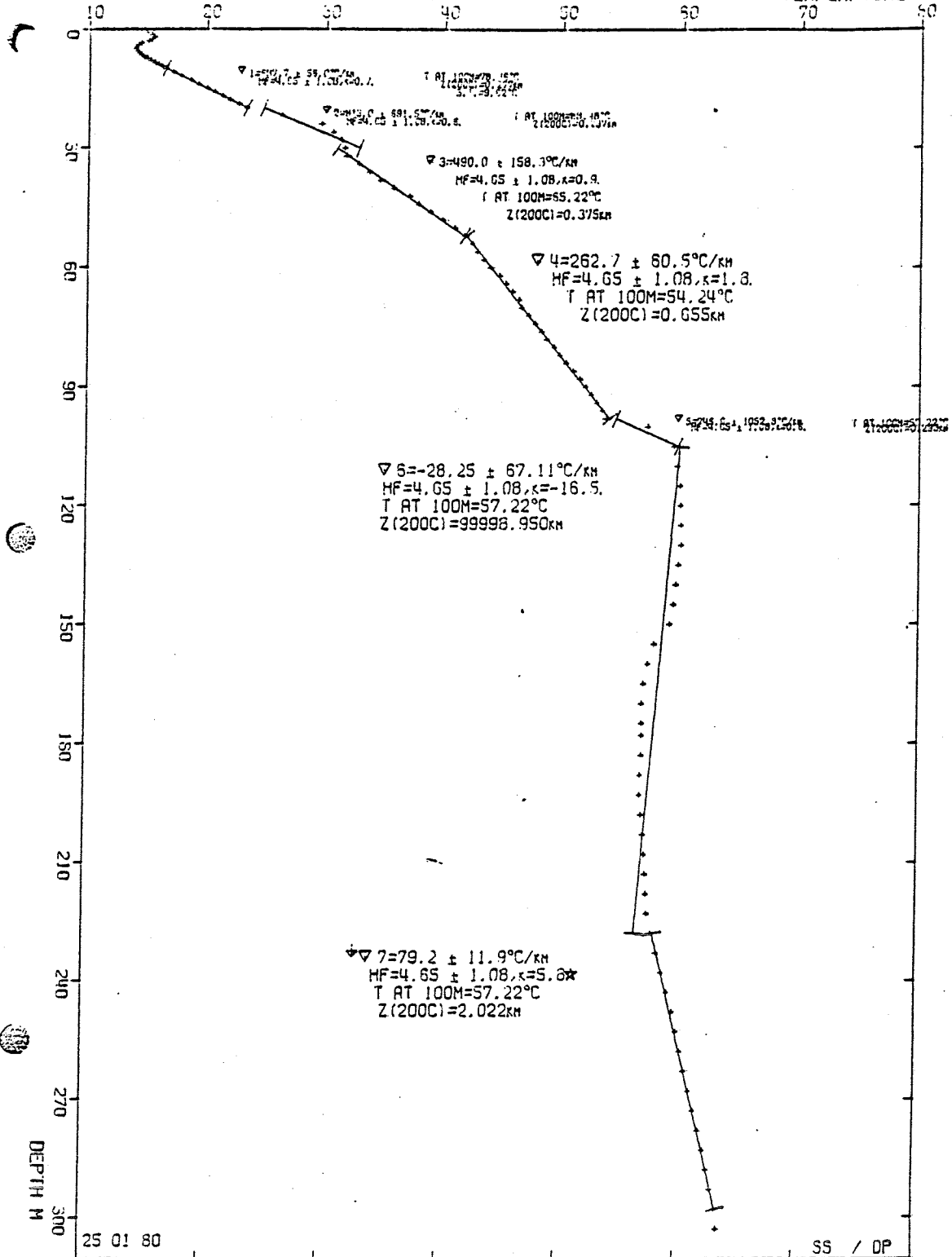
N. LAT 41.479, W. LONG 116.138

PROJ. 300

WELL 55

18 10 79

TEMPERATURE °C



25 01 80

PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	EDITOR	DRL DATE	LP	LI	ISZ	IST			
860		33	18	10	79	. 3 KM NW ELEVATION MARK 5962	SS / LF	9	8	79	1	0	1	1

YCM	YCM	N.LAT	W.LONG	ELEV
40.3500	14.9000	41.4781	116.1385	1792.2

J	SEG START	SEG END	CONDIVITY & STD DEV.	
1	10.000	20.000	0.000	0.000
2	20.000	30.000	0.000	0.000
3	30.000	52.000	0.000	0.000
4	52.000	98.000	0.000	0.000
5	98.000	105.000	0.000	0.000
6	105.000	228.000	0.000	0.000
7	228.000	298.000	5.800	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
 *** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.	
860		33	18	10	79	1.000	14.790	99999.000	1
						1.500	15.210	840.000	2
						2.000	15.470	520.000	3
						2.500	15.220	-500.000	4
						3.000	14.970	-500.000	5
						3.500	14.360	-1220.001	6
						4.000	14.060	-599.999	7
						4.500	13.900	-320.000	8
						5.000	13.900	0.000	9
						5.500	13.990	180.000	10
860		33	18	10	79	6.000	14.150	320.000	11
						6.500	14.350	399.998	12
						7.000	14.540	380.001	13
						7.500	14.830	580.002	14
						8.000	15.170	679.996	15
						8.500	15.510	680.000	16
						9.000	15.830	640.003	17
						9.500	16.140	619.999	18
						10.000	16.470	639.996	19
						11.000	17.170	700.001	20
						12.000	17.810	639.999	21
						13.000	18.610	799.999	22
						14.000	19.280	670.002	23
						15.000	19.980	700.001	24
						16.000	20.650	659.998	25
						17.000	21.320	670.002	26
						18.000	21.940	619.999	27

	170.000	56.930	-22.000	83	
	175.000	56.920	-1.999	84	
	178.000	56.950	10.000	85	
	183.000	56.930	-4.001	86	
	188.000	56.800	-25.999	87	
	193.000	56.790	-2.000	88	
	198.000	56.940	30.000	89	
	203.000	57.100	32.001	90	
860	33 18 10 79	208.000	57.220	23.999	91
		213.000	57.340	24.001	92
		218.000	57.420	16.000	93
		223.000	57.530	22.000	94
		228.000	57.870	67.999	95
		233.000	58.300	86.000	96
		238.000	58.760	92.000	97
		243.000	59.240	96.001	98
		248.000	59.720	95.999	99
		253.000	60.070	70.001	100
860	33 18 10 79	258.000	60.380	62.000	101
		263.000	60.740	72.000	102
		268.000	61.180	87.999	103
		273.000	61.590	82.001	104
		278.000	61.990	80.000	105
		283.000	62.390	80.000	106
		288.000	62.730	67.999	107
		293.000	63.040	62.000	108
		298.000	63.490	90.001	109
		303.000	63.630	28.000	110

SURFACE INTERCEPT FOR SEGMENT 1 = 9.618

SEG	ZSTART	TSTART	ZEND	TEND	COND	DOCN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	10.000	16.470	20.000	23.340	0.677	0.000	687.729	55.991	4.653	1.084	78.358	0.277
2	20.000	23.340	30.000	31.570	0.572	0.000	813.800	61.843	4.653	1.084	88.460	0.237
3	30.000	31.570	52.000	41.700	0.950	0.000	490.623	159.287	4.653	1.084	65.222	0.375
4	52.000	41.700	98.000	53.710	1.771	0.000	262.725	60.494	4.653	1.084	54.235	0.655
5	98.000	53.710	105.000	59.440	0.623	0.000	746.812	152.806	4.653	1.084	57.220	0.293
6	105.000	59.440	228.000	57.870	-16.488	0.000	-18.174	17.111	4.653	1.084	57.220	99999.000
7	228.000	57.870	298.000	63.490	5.800	0.500	79.159	11.869	4.653	1.084	57.220	2.022

		19.000	22.700	759.998	28
		20.000	23.340	639.999	29
860	33 18 10 79	22.000	26.310	1485.000	30
		24.000	29.610	1650.000	31
		26.000	30.580	485.001	32
		28.000	31.240	330.000	33
		30.000	31.570	145.001	34
		32.000	31.680	54.998	35
		34.000	32.790	554.998	36
		36.000	33.670	440.002	37
		38.000	34.570	450.001	38
		40.000	35.710	570.000	39
860	33 18 10 79	42.000	37.020	654.999	40
		44.000	37.790	384.998	41
		46.000	38.820	515.003	42
		48.000	39.840	509.998	43
		50.000	40.880	520.000	44
		52.000	41.700	410.000	45
		54.000	42.400	349.998	46
		56.000	42.850	225.002	47
		58.000	43.390	270.000	48
		60.000	43.970	289.997	49
860	33 18 10 79	62.000	44.730	380.001	50
		64.000	45.260	264.999	51
		66.000	45.820	280.003	52
		68.000	46.370	274.998	53
		70.000	46.580	105.000	54
		72.000	47.180	299.999	55
		74.000	47.740	290.003	56
		76.000	48.250	255.001	57
		78.000	48.660	204.998	58
		80.000	49.350	345.001	59
860	33 18 10 79	82.000	49.810	230.000	60
		84.000	50.360	274.998	61
		86.000	50.990	315.002	62
		88.000	51.520	264.999	63
		90.000	51.980	230.000	64
		92.000	52.450	235.001	65
		94.000	52.950	250.000	66
		96.000	53.410	230.000	67
		98.000	53.710	150.002	68
860	33 18 10 79	100.000	57.220	1754.997	69
		105.000	59.440	444.000	70
		110.000	59.730	58.000	71
		115.000	59.980	50.000	72
		120.000	60.020	8.000	73
		125.000	60.050	6.000	74
		130.000	60.090	8.000	75
		135.000	59.860	-46.001	76
		140.000	59.690	-34.000	77
		145.000	59.510	-36.000	78
		150.000	59.180	-66.000	79
860	33 18 10 79	155.000	57.900	-256.000	80
		160.000	57.380	-103.999	81
		165.000	57.040	-68.001	82

LITHOLOGIC LOG

Project: Hole 860-33Location: 41N, 52E, SE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 4Elevation: 5880'Date Drilled: 8-(5-9)-79Method: Air to 8.5m rotary/mud to T.D.

Depth (m)	Description
0 - 3 m	Float, soil regolith. <ul style="list-style-type: none"> < crystal tuff < lithic tuff < volcano-clastic sandstone < white, well indurated tuff bearing mafic crystals
3 - 6 m	Light gray, fine grained partially altered tuff. 30-50% clay.
6 - 24m	75% brown clay. (Mont.?) Lithic content appears same as above - more extensively altered to clay.
24 - 27m	Essentially same, appearance of lithic fragments of various tuffs (about 10% sample). Possibly contamination from uphole. Still 75% brown clay.
27 - 48m	Same as 3-6m.
48 - 57m	Med. gray, med. grained crystal tuff. 50% or more crystals. Feldspar phenocrysts, small mafics (biotite)
57 - 63m	Same as 3-6m and 27-48m. (less clay -20%)
63 - 66m	75% gray clay, lithic portion as above and extensively altered to clay, crumbly.
66 - 84m	Same as 3-6m and 27-48m and 57-63m (clay content 20-40%).
84 - 90m	Same, increase in clay to 50-70%.
90 - 96m	Same, reduction in clay to 10% of sample.
96 - 99m	Same, increase in clay to 60-70%.
99 - 108m	Same, clay content 20-25%
108 - 165m	Essentially same gray tuff, however < 5% clay, not very altered and fairly competent rock. Better cuttings reveal minor content of feldspar crystals, some plag., also very fine mafics. Occasional appearance of fine pyrite (coating or disseminated) and Fe stains (Limonite?)
165 - 177m	Same as 84-90m. Light gray, fine grained altered tuff 50-70% sample is clay.
177 - 180m	Same as 108-165 m. < 5% clay.

LITHOLOGIC LOG

Project: 860-33 - Continued

Elevation: _____

Date Drilled: _____

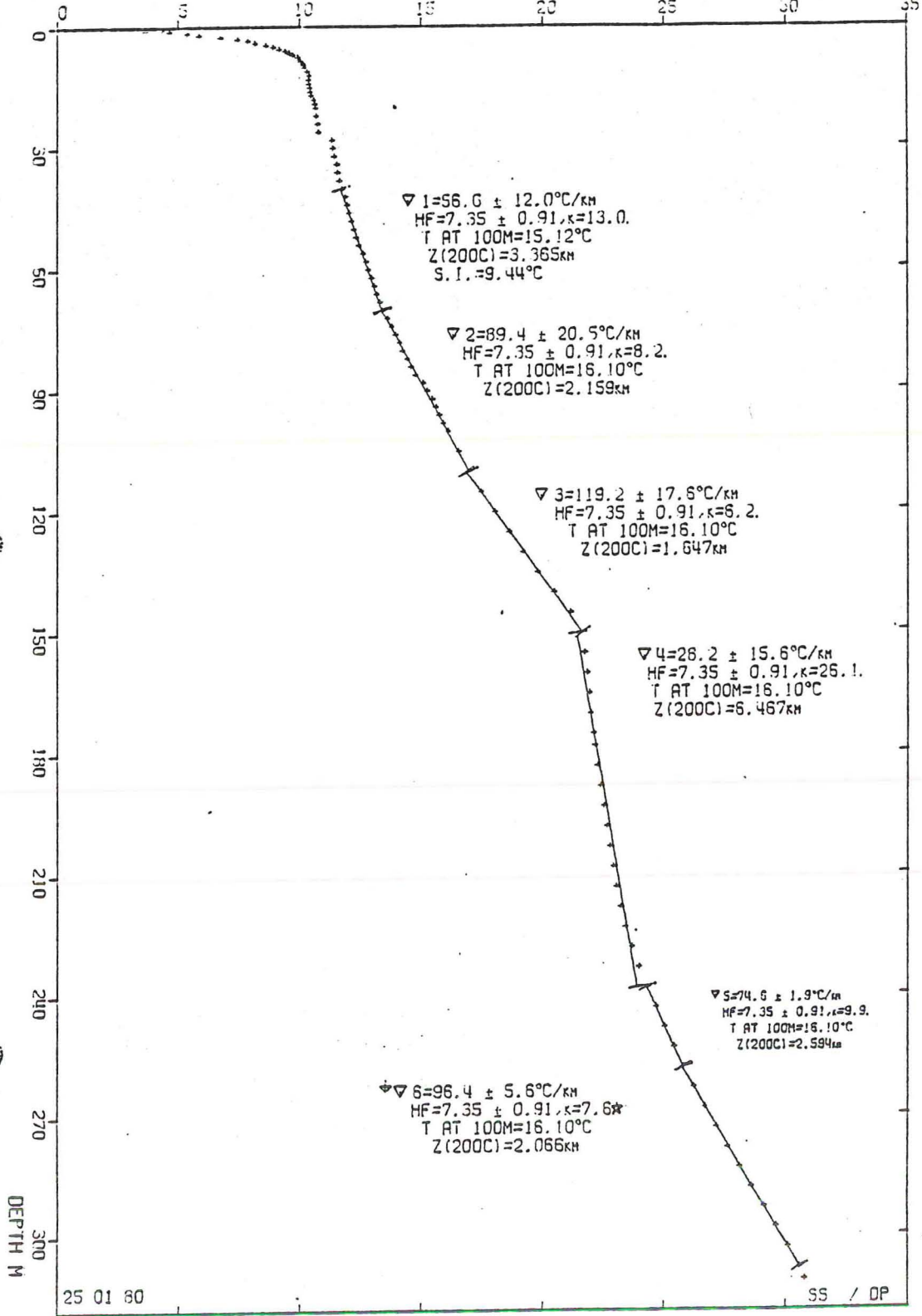
Depth (m)	Description
180 - 189m	Similar to 108-165 however 50-60% clay, extensively altered. Crystals still visible in lithic fragments. Small mafics (biotite), small feldspar grains, possible some quartz.
189 - 201m	Darker color, med. gray tuff, 5% clay, contains some clear crystalline looking euhedral feldspars. Has a glassy appearance to groundmass. Little devitrification or alteration.
201 - 222m	Light to med. gray tuff, competent, little clay, minor content of tiny mafic grains, some Fe staining, samples pulverized by drilling. Considerable quantities lost circulation material in cuttings.
222 - 228m	Same, lighter gray color.
228 - 300m	Appears similar to 201 - 228m.
T.D.	Difficult to evaluate as majority of cuttings are lost circulation materials (organic)
	Exposure to sun: Excellent
	Vegetation: Low sage
	Land use: Cattle grazing
	Groundwater: Moisture encountered by 8.5m
	Comments: Lost 100% circulation at 201m and 216m. Driller reported easy drilling to 100m in a sticky clay then slower drilling in a more competent rock.

TUSCARORA, NV
ACROSS ROAD NW OF BM 5551 .2KM

N.LAT 41.446, W.LONG 116.102

PROJ. 660 WELL 34 1 11 79

TEMPERATURE °C



25 01 80
PROJECT: TUSCARORA, NV

PROJ	WELL	DA	MO	YR	WELL TITLE	SECTION	REL DATE	LP	LI	IS7	IST
860	34	1	11	79	CROSS ROAD NW OF BM 5851 .2KM	05 / 06	11 9 79	1	0	1	1

YCM	XCM	N.LAT	W.LONG	ELEV
35.0000	19.8000	41.4478	116.1019	1789.2

J	SEG START	SEG END	CONDUCTIVITY & STD DEV.	
1	40.000	70.000	0.000	0.000
2	70.000	110.000	0.000	0.000
3	110.000	150.000	0.000	0.000
4	150.000	238.000	0.000	0.000
5	238.000	258.000	0.000	0.000
6	258.000	308.000	7.600	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	34	1	11	79	0.500	4.330	9999.000	1
					1.000	4.650	639.999	2
					1.500	5.370	1440.000	3
					2.000	5.860	980.000	4
					2.500	6.730	1740.000	5
					3.000	7.440	1420.000	6
					3.500	7.870	880.001	7
					4.000	8.170	599.996	8
					4.500	8.620	900.001	9
					5.000	8.900	560.001	10
860	34	1	11	79	5.500	9.160	520.000	11
					6.000	9.400	480.000	12
					6.500	9.580	360.001	13
					7.000	9.730	299.999	14
					7.500	9.930	399.998	15
					8.000	9.970	80.002	16
					8.500	10.040	139.999	17
					9.000	10.130	180.000	18
					9.500	10.170	79.998	19
					10.000	10.180	20.000	20
860	34	1	11	79	11.000	10.310	130.001	21
					12.000	10.390	80.000	22
					13.000	10.370	-20.000	23
					14.000	10.380	10.000	24
					15.000	10.420	39.999	25
					16.000	10.430	10.000	26
					17.000	10.480	50.001	27
					18.000	10.580	100.000	28

			19.000	10.620	39.999	29
860	34	1 11 79	20.000	10.650	30.001	30
			22.000	10.680	14.999	31
			24.000	10.730	25.001	32
			26.000	10.770	20.000	33
			28.000	11.340	285.000	34
			30.000	11.380	20.000	35
			32.000	11.430	25.000	36
			34.000	11.530	50.000	37
			36.000	11.560	15.000	38
			38.000	11.640	40.000	39
860	34	1 11 79	40.000	11.740	50.000	40
			42.000	11.870	65.000	41
			44.000	11.950	40.000	42
			46.000	12.020	35.000	43
			48.000	12.130	55.000	44
			50.000	12.230	50.000	45
			52.000	12.320	45.000	46
			54.000	12.450	65.000	47
			56.000	12.610	80.000	48
			58.000	12.730	60.000	49
860	34	1 11 79	60.000	12.820	45.000	50
			62.000	12.960	70.000	51
			64.000	13.080	60.000	52
			66.000	13.180	49.999	53
			68.000	13.300	60.000	54
			70.000	13.420	59.999	55
			72.000	13.600	90.000	56
			74.000	13.760	90.000	57
			76.000	13.940	80.000	58
			78.000	14.100	80.000	59
860	34	1 11 79	80.000	14.230	65.001	60
			82.000	14.420	94.999	61
			84.000	14.590	25.000	62
			86.000	14.770	90.000	63
			88.000	15.080	155.001	64
			90.000	15.240	80.000	65
			92.000	15.440	99.999	66
			94.000	15.590	75.000	67
			96.000	15.730	70.001	68
			98.000	15.890	80.000	69
860	34	1 11 79	100.000	16.100	105.000	70
			105.000	16.560	32.000	71
			110.000	16.960	68.000	72
			115.000	17.450	110.000	73
			120.000	18.040	118.000	74
			125.000	18.620	116.000	75
			130.000	19.170	110.000	76
			135.000	19.790	124.000	77
			140.000	20.400	134.000	78
			145.000	21.150	138.000	79
860	34	1 11 79	150.000	21.560	32.000	80
			155.000	21.740	36.000	81
			160.000	21.850	22.000	82
			165.000	21.930	16.000	83

			170.000	21.980	10.001	84
			175.000	22.090	21.999	85
			178.000	22.160	23.335	86
			183.000	22.250	18.000	87
			188.000	22.370	24.000	88
			193.000	22.500	26.000	89
			198.000	22.630	25.999	90
860	34	1 11 79	203.000	22.770	28.000	91
			208.000	22.900	26.000	92
			213.000	23.040	28.000	93
			218.000	23.210	34.000	94
			223.000	23.420	42.000	95
			228.000	23.660	52.000	96
			233.000	23.980	60.001	97
			238.000	24.320	68.000	98
			243.000	24.680	71.999	99
			248.000	25.050	74.001	100
860	34	1 11 79	253.000	25.430	75.999	101
			258.000	25.810	76.000	102
			263.000	26.230	84.000	103
			268.000	26.700	93.999	104
			273.000	27.170	94.000	105
			278.000	27.640	94.000	106
			283.000	28.140	100.000	107
			288.000	28.640	100.000	108
			293.000	29.120	96.000	109
			298.000	29.640	104.000	110
860	34	1 11 79	303.000	30.100	92.000	111
			308.000	30.570	94.000	112
			311.000	30.770	66.666	113

SLRFACE INTERCEPT FOR SEGMENT 1 = 9.436

SEG	ZSTART	TSTART	ZEND	TEND	COND	DCON	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	40.000	11.740	70.000	13.420	12.984	0.000	55.523	11.999	7.352	0.905	15.119	3.365
2	70.000	13.420	110.000	16.900	8.226	0.000	89.373	20.474	7.352	0.905	16.100	2.159
3	110.000	16.900	150.000	21.560	6.170	0.000	115.151	17.561	7.352	0.905	16.100	1.647
4	150.000	21.560	238.000	24.320	26.066	0.000	18.264	15.649	7.352	0.905	16.100	6.467
5	238.000	24.320	258.000	25.810	9.859	0.000	74.572	1.517	7.352	0.905	16.100	2.594
6	258.000	25.810	308.000	30.570	7.600	0.500	70.357	5.570	7.352	0.905	16.100	2.066

LITHOLOGIC LOG

Project: 860-34

Location: 41N, 52E, Sec. 14, NE, SW, SW

Elevation: 5880'Date Drilled: 9/9 - 12/79
Method: Rotary/mud

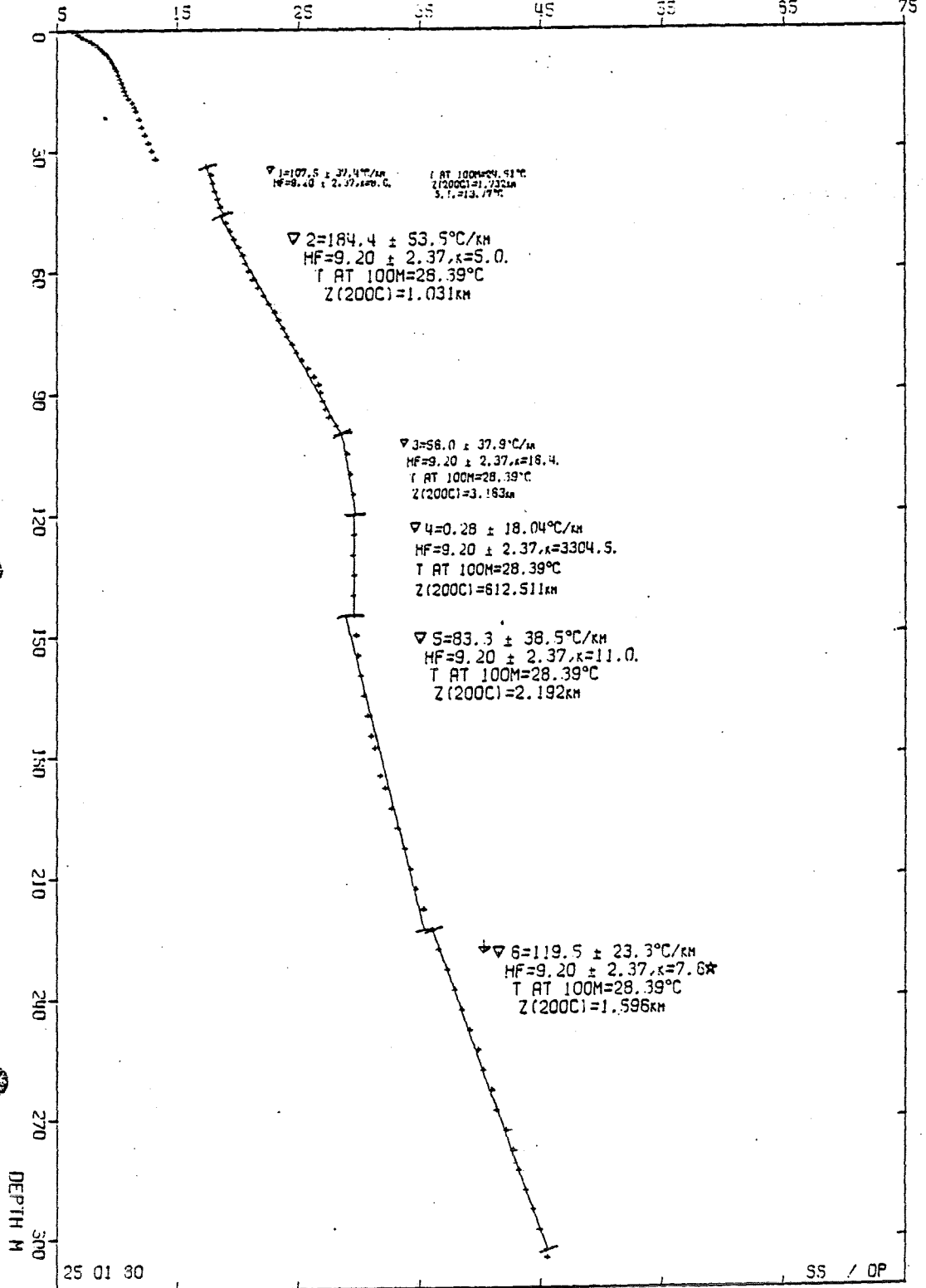
Depth (m)	Description
0 - 3m	Brown silty soil and quartzite gravel and boulders. Small amount argillite and chert.
3 - 11m	<p>Sand, gravel and boulders of quartzite. Minor amounts black argillite w/siliceous veins, chert.</p> <p>Quartzites of clean, well sorted, medium grained, rounded and sub-rounded varieties.</p> <p>Also some med-gray very fine grained quartzite.</p> <p>Some quartzite Fe-stained, less well sorted with fine and course grains of various angularity.</p>
11-312m	<p>Argillite, dark gray/black. Siliceous micro-veins. Extremely hard and well indurated.</p> <p>Variations: Some cuttings lighter color-med gray, some more shaly. Some zones contain more chert than others - possibly chert interbeds. Chert content minor.</p> <p>90-180m Appearance of brownish gray siltite. Some med. gray or salt and pepper looking. Not extremely fine grained like argillite. Contains silt and sand. Extremely well indurated and hard.</p> <p>Exposure to sun: excellent Vegetation: sage, mostly grass (sparse) Land use: cattle and horses grazing Ground water: unknown</p> <p>Comments: near highway</p>

TUSCARORA, NV
0.5 KM WNW ANDREA RANCH
PROJ. 660 WELL 41

N. LAT 41.463 W. LONG 116.119

1 11 79

TEMPERATURE °C



25 01 80

PROJECT: TUSCARORA, NV

WELL NO DA MO YR
860 41 1 11 79

WELL TITLE
0.8 KM WNW ANDREA RANCH

EDITION ORL DATE LP LI ISS IST
55 / 01 29 9 79 1 0 1 1

YCH XCM N.LAT W.LONG ELEV
37.6500 17.7000 41.4628 116.1176 1613.6

J	SEG START	SEG END	CONDUCTVY	STD DEV.
1	34.000	46.000	0.000	0.000
2	46.000	100.000	0.000	0.000
3	100.000	120.000	0.000	0.000
4	120.000	145.000	0.000	0.000
5	145.000	223.000	0.000	0.000
6	223.000	303.000	7.600	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

WELL NO	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.	
860	41	1	11	79	0.500	6.200	99999.000	1
					1.000	6.640	679.999	2
					1.500	6.930	580.000	3
					2.000	7.140	420.000	4
					2.500	7.490	700.001	5
					3.000	7.780	580.000	6
					3.500	8.030	499.998	7
					4.000	8.320	560.002	8
					4.500	8.530	419.998	9
					5.000	8.720	380.001	10
860	41	1	11	79	5.500	8.870	299.999	11
					6.000	9.080	420.002	12
					6.500	9.200	239.998	13
					7.000	9.310	220.001	14
					7.500	9.430	239.998	15
					8.000	9.510	150.000	16
					8.500	9.610	200.001	17
					9.000	9.720	220.001	18
					9.500	9.810	180.000	19
					10.000	9.900	180.000	20
860	41	1	11	79	11.000	10.050	150.000	21
					12.000	10.160	110.001	22
					13.000	10.310	150.000	23
					14.000	10.440	129.999	24
					15.000	10.560	120.001	25
					16.000	10.710	150.000	26
					17.000	10.870	150.000	27
					18.000	11.200	330.000	28

			19.000	11.400	200.001	29
			20.000	11.540	139.999	30
P60	41	1 11 79	22.000	11.780	120.000	31
			24.000	12.010	115.000	32
			26.000	12.240	115.001	33
			28.000	12.550	155.000	34
			30.000	12.830	140.000	35
			32.000	13.120	144.999	36
			34.000	17.370	2125.000	37
			36.000	17.720	174.999	38
			38.000	17.870	75.001	39
			40.000	18.030	90.000	40
P60	41	1 11 79	42.000	18.270	119.999	41
			44.000	18.520	125.000	42
			46.000	18.710	95.001	43
			48.000	18.960	125.000	44
			50.000	19.270	154.999	45
			52.000	19.600	165.001	46
			54.000	20.020	209.999	47
			56.000	20.350	165.001	48
			58.000	20.580	115.000	49
			60.000	20.810	115.000	50
P60	41	1 11 79	62.000	21.170	190.000	51
			64.000	21.600	215.000	52
			66.000	22.050	225.000	53
			68.000	22.500	225.000	54
			70.000	22.960	230.000	55
			72.000	23.290	164.999	56
			74.000	23.620	165.001	57
			76.000	23.980	180.000	58
			78.000	24.430	224.998	59
			80.000	24.770	170.000	60
P60	41	1 11 79	82.000	25.200	215.000	61
			84.000	25.700	250.000	62
			86.000	26.210	255.001	63
			88.000	26.570	180.000	64
			90.000	26.730	80.000	65
			92.000	26.900	84.999	66
			94.000	27.140	120.001	67
			96.000	27.430	144.999	68
			98.000	28.030	300.001	69
			100.000	28.390	180.000	70
P60	41	1 11 79	105.000	28.940	110.000	71
			110.000	29.210	54.000	72
			115.000	29.440	46.000	73
			120.000	29.840	20.000	74
			125.000	29.510	-6.000	75
			130.000	29.450	-12.000	76
			135.000	29.550	20.000	77
			140.000	29.400	-18.000	78
			145.000	29.560	20.000	79
			150.000	29.680	24.000	80
P60	41	1 11 79	155.000	29.840	32.000	81
			160.000	30.040	40.000	82
			165.000	30.310	54.000	83

			170.000	30.630	64.000	84
			175.000	30.920	58.000	85
			178.000	31.240	106.667	86
			185.000	31.650	58.571	87
			188.000	32.110	153.532	88
			193.000	32.630	104.001	89
			198.000	33.130	100.000	90
860	41	1 11 79	203.000	33.640	102.000	91
			208.000	34.140	100.000	92
			213.000	34.610	93.999	93
			218.000	35.250	129.001	94
			223.000	35.930	135.999	95
			228.000	36.500	114.001	96
			233.000	37.210	142.000	97
			238.000	37.820	122.000	98
			243.000	38.430	121.999	99
			248.000	39.100	134.001	100
860	41	1 11 79	253.000	39.830	145.999	101
			258.000	40.220	78.000	102
			263.000	40.950	146.001	103
			268.000	41.530	75.999	104
			273.000	42.120	158.000	105
			278.000	42.720	120.000	106
			283.000	43.200	56.001	107
			288.000	43.790	117.999	108
			293.000	44.390	120.001	109
			298.000	44.920	106.000	110
860	41	1 11 79	303.000	45.460	108.000	111
			305.000	45.510	24.998	112

SURFACE INTH-CRPT FOR SEGMT 1 = 13.770

SEG	ZSTART	ZEND	TFND	COND	DOCN	GRADIENT	S.D.	HFU	DHF	T AT 100M	KM
1	34.000	46.000	18.710	8.556	0.000	107.498	37.583	9.197	2.367	24.515	1.732
2	46.000	100.000	28.390	4.987	0.000	104.412	53.530	9.197	2.367	28.390	1.031
3	100.000	120.000	29.540	16.421	0.000	56.010	37.929	9.197	2.367	28.390	3.163
4	120.000	145.000	29.560	3304.505	0.000	0.278	18.043	9.197	2.367	28.390	612.511
5	145.000	223.000	35.930	11.039	0.000	83.319	38.484	9.197	2.367	28.390	2.192
6	223.000	303.000	45.460	7.600	0.500	111.487	23.281	9.197	2.367	28.390	1.596

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

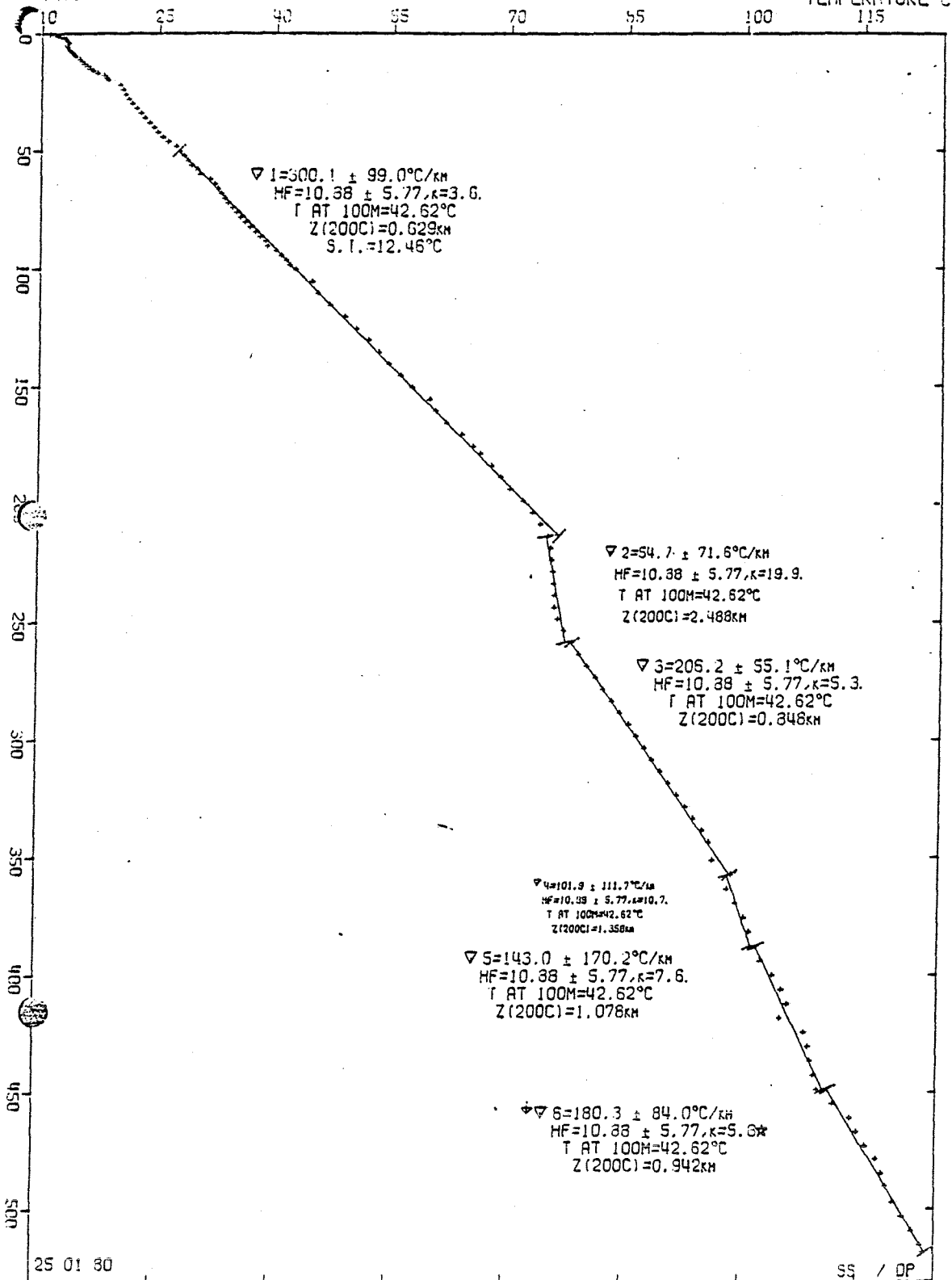
Project: 860-41Location: 41N, 52E, SE $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 10Elevation: 5920Date Drilled: Aug. 26-29, 79

Depth (m)	Description
0 - 6m	Soil and alluvial debris, predominantly quartzite boulders and gravels
6 - 42m	Alluvial debris loosely cemented. Gravels and boulders of predominantly clean quartzites, some dark gray and black chert.
42 - 51m	Essentially same however appearance of 20-40% sand size material in cuttings, probably represents matrix in gravels.
51 - 54m	Same as above however appearance of 5-10% white friable de-vitrified tuffaceous material, mostly coarse sand in size and rounded (possibly rounded by being washed to surface).
54 - 60m	As above, sand content increased to 50%. Increase in white tuffaceous material, probably 15% of sample.
60 - 81m	Same, tuffaceous material increasing to 20% of sample and some larger peices up to 4mm. Tuff is almost entirely altered to clay, no crystals evident.
81 - 84m	Various quartzites, no tuffaceous material, minor % chert and argillite.
84 - 90m	Predominantly various quartzites as above. Appearance of 10% white tuff, mostly altered to clay containing black mafic grains and some small altered feldspar crystals. Little sand size material.
90 - 93m	Same, clay to sand size material now 30% of sample. Tuff increased to 20% of sample. Clay perhaps 10% of total sample.
93 - 108m	65% dark gray material as described below. Remainder of samples continues to be uphole contamination of quartzite and tuff.
108 - 312m T.D.	Dark gray, fine grained probably silicified sandy siltstone. Some crystalline looking orange colored feldspar grains. Ground to sand size by drilling.
	Probably the eugeosynclinal "quartzite" - an immature sediment containing feldspars and predominantly composed of silt size quartz, having been subjected to high stress from deep burial and tectonic movement. Very hard material with a glassy look to it, probably a micaceous sheen.
	Exposure to Sun - excellent
	Vegetation - Sage - sparse
	Land Use - cattle grazing if in use.
	Comments - lost circulation constantly while drilling in small amounts.

TUSCARORA, NV
 0.5 KM N OF HOT SULPHUR SPR
 PROJ. 360 WELL 42 20 10 79

N. LAT 41.477; W. LONG 116.152

TEMPERATURE °C



GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80
PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR WELL TITLE
 860 42 20 10 79 0.6 KM N OF HOT SULPHUR SPR

YCM XCM N.LAT W.LONG
 40.2000 13.1000 41.4772 116.1520

20110
 SS / BP 6 9 79 1 0 1 1
 FLEV 1792.2

J	SEG START	SEG END	CONDVTY & STD DEV.	
1	50.000	213.000	0.000	0.000
2	213.000	258.000	0.000	0.000
3	258.000	358.700	0.000	0.000
4	358.700	387.200	0.000	0.000
5	387.200	448.200	0.000	0.000
6	448.200	518.300	5.600	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS
 *** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	SEG C	DFG C/KM	SAMPLE NO.	
860		42	20	10	79	0.500	10.950	99999.000	1
						1.000	11.760	1619.999	2
						1.500	12.220	920.002	3
						2.000	12.690	939.999	4
						2.500	12.970	560.001	5
						3.000	13.050	160.000	6
						3.500	13.190	279.999	7
						4.000	13.350	320.000	8
						4.500	13.210	-279.999	9
860		42	20	10	79	5.000	13.080	-259.998	10
						5.500	13.130	99.998	11
						6.000	13.200	139.999	12
						6.500	13.260	119.999	13
						7.000	13.320	120.003	14
						7.500	13.430	219.997	15
						8.000	13.650	440.002	16
						8.500	13.810	320.000	17
						9.000	13.970	320.000	18
						9.500	14.140	340.000	19
860		42	20	10	79	10.000	14.270	259.998	20
						11.000	14.790	520.000	21
						12.000	15.020	230.000	22
						13.000	15.360	340.000	23
						14.000	15.760	400.000	24
						15.000	16.130	359.999	25
						16.000	16.560	430.000	26
						17.000	17.100	540.001	27
						18.000	17.850	750.000	28

		19.000	18.190	340.000	29
		20.000	18.440	250.000	30
860	42 20 10 79	22.000	19.970	764.999	31
		24.000	20.370	200.001	32
		26.000	20.720	174.999	33
		28.000	21.090	184.999	34
		30.000	21.590	250.000	35
		32.000	22.100	255.001	36
		34.000	22.640	270.000	37
		35.000	23.150	254.999	38
		38.000	23.730	290.001	39
		40.000	24.310	289.999	40
860	42 20 10 79	42.000	24.820	255.001	41
		44.000	25.440	309.999	42
		46.000	26.120	340.000	43
		48.000	27.130	594.999	44
		50.000	27.650	260.000	45
		52.000	28.200	275.000	46
		54.000	28.640	220.001	47
		56.000	29.140	250.000	48
		58.000	29.880	389.999	49
860	42 20 10 79	60.000	30.120	120.001	50
		62.000	31.430	654.999	51
		64.000	32.040	304.998	52
		66.000	32.500	230.003	53
		68.000	32.950	224.998	54
		70.000	33.420	235.001	55
		72.000	33.870	224.998	56
		74.000	34.390	260.002	57
		76.000	34.880	244.999	58
		78.000	35.380	250.000	59
		80.000	36.620	320.000	60
860	42 20 10 79	82.000	36.670	325.001	61
		84.000	37.320	325.001	62
		86.000	37.950	314.999	63
		88.000	38.650	349.998	64
		90.000	38.850	100.002	65
		92.000	39.990	570.000	66
		94.000	40.650	329.998	67
		96.000	41.340	345.001	68
		98.000	41.820	240.002	69
		100.000	42.620	399.998	70
860	42 20 10 79	105.000	44.620	400.000	71
		110.000	45.440	164.000	72
		115.000	46.990	310.001	73
		120.000	48.890	380.000	74
		125.000	50.410	303.999	75
		130.000	51.920	302.000	76
		135.000	53.280	272.000	77
		140.000	54.570	258.000	78
		145.000	56.070	300.000	79
		150.000	57.600	306.000	80
860	42 20 10 79	155.000	59.830	449.999	81
		160.000	60.550	144.000	82
		165.000	61.980	286.000	83

		170.000	63.940	392.000	84
		175.000	65.400	292.000	85
		178.000	66.350	316.666	86
		183.000	67.830	295.999	87
		188.000	68.990	232.001	88
		193.000	70.180	238.000	89
860	42 20 10 79	198.000	71.820	328.000	90
		203.000	73.050	245.999	91
		208.000	74.120	214.001	92
		213.000	75.010	178.000	93
		218.000	75.330	63.998	94
		223.000	75.510	36.002	95
		228.000	75.630	23.999	96
		233.000	75.750	24.002	97
		238.000	75.910	31.998	98
		243.000	75.840	-13.996	99
		248.000	76.290	89.999	100
860	42 20 10 79	253.000	77.130	167.999	101
		258.000	78.100	194.000	102
		263.000	79.090	198.001	103
		268.000	80.120	206.000	104
		273.000	81.150	206.000	105
		278.000	82.180	206.000	106
		283.000	83.280	220.001	107
		288.000	84.330	209.998	108
		293.000	85.520	238.000	109
		298.000	86.410	178.000	110
860	42 20 10 79	303.000	87.450	208.002	111
		308.000	88.480	206.000	112
		313.000	89.540	212.000	113
		318.000	90.600	212.000	114
		323.000	91.660	212.000	115
		328.000	92.710	210.001	116
		333.000	93.780	214.001	117
		338.000	94.920	229.999	118
		343.000	95.770	167.999	119
		350.600	96.290	68.422	120
860	42 20 10 79	356.700	98.630	383.607	121
		362.800	98.180	-73.770	122
		368.900	99.180	163.935	123
		375.000	100.350	191.802	124
		381.000	100.960	101.667	125
		387.200	101.070	17.742	126
		393.300	102.410	219.670	127
		399.400	104.070	272.133	128
		405.500	105.290	199.999	129
		411.600	105.960	109.835	130
860	42 20 10 79	417.700	105.070	-145.902	131
		423.800	108.130	501.635	132
		429.900	108.740	100.000	133
		436.000	108.960	36.066	134
		442.100	109.410	73.770	135
		448.200	109.910	81.968	136
		454.300	111.850	318.031	137
		460.400	114.130	373.772	138

466.500	114.960	136.055	139
472.900	116.070	173.439	140
478.700	117.410	231.034	141
484.800	118.130	118.032	142
490.100	118.680	103.774	143
497.000	119.570	128.985	144
503.100	120.850	209.837	145
509.200	122.070	200.001	146
515.200	123.180	185.000	147
518.300	123.570	125.807	148

SURFACE INTERCEPT FOR SEGMENT 1 = 12.455

SEG	ZSTART	TSTART	ZEND	TEND	COND	&	DCON	GRADIENT	%	S.D.	HFU	&	DHF	T AT 100M	KM
1	50.000	27.650	213.000	75.010	3.624		0.000	300.124		99.034	10.878		5.773	42.620	0.629
2	213.000	75.010	258.000	78.100	19.900		0.000	54.662		71.635	10.878		5.773	42.620	2.488
3	258.000	78.100	356.700	98.630	5.274		0.000	206.347		55.143	10.878		5.773	42.620	0.848
4	356.700	98.630	387.200	101.070	10.679		0.000	101.265		111.653	10.878		5.773	42.620	1.258
5	387.200	101.070	448.200	109.910	7.605		0.000	143.033		170.224	10.878		5.773	42.620	1.078
6	448.200	109.910	518.300	123.570	5.800		0.500	180.305		83.969	10.878		5.773	42.620	0.542

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: 860-42 - Continued

Elevation: _____

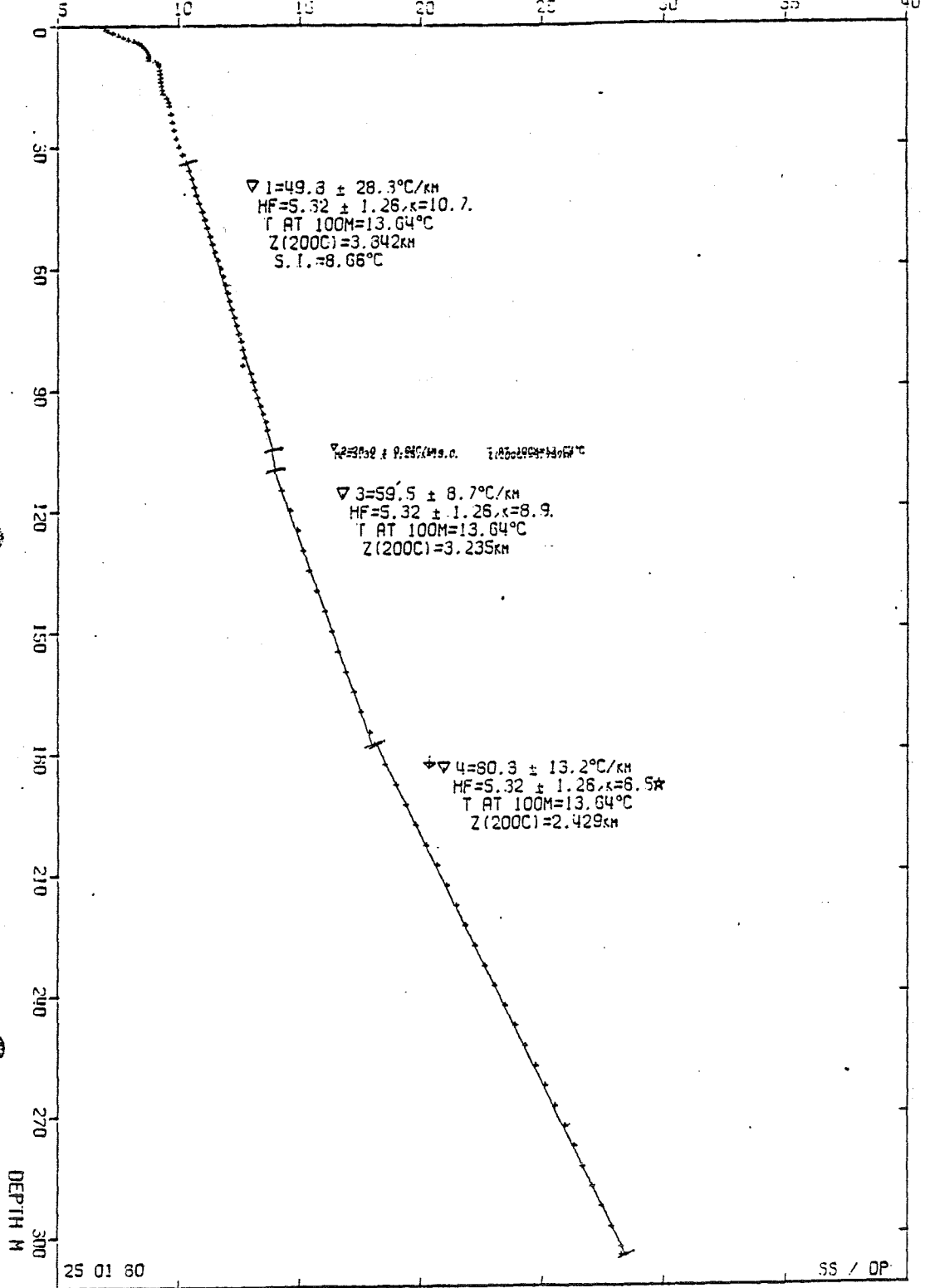
Date Drilled: _____

Depth (m)	Description
195-222m	Predominantly gray crystal vitric tuff bearing some biotite, extensively devitrified. Both competent and clayey and crumbly. Little reworked tuffaceous material.
222-234m	Appearance of a non-devitrified glassy biotite crystal vitric tuff, white in color. Some chalky devitrified tuff of same description, also gray/brown clayey material of same description, possibly reworked and high in clay and silt content.
234-249m	White/light gray indurated biotite crystal vitric tuff devitrified to chalky appearance but competent. Feldspar and minor quartz visible as small phenocrysts.
249-270m	As above, also reworked material described in interval 117-195.
270-522m (D)	Extremely fine cuttings show no quartz sand as evidence of reworking. Apparently off-white devitrified biotite crystal vitric tuff interbedded with some glassy non-devitrified tuff of same description and silver gray color. All material competent - no clayey, crumbly, highly altered tuff.
	Sun Exposure - excellent except late evening
	Vegetation - low sage and grass
	Land use - cattle
	Groundwater - drilling water lost continually while drilling driller suspected cold water at 30m.
	Comments - drilled with water, no mud "harder" drilling encountered 243 m Sharp rise in mud temp. between 243 and 273m.

TUSCARORA, NV
4 KM S OF JACK CREEK LODGE
PROJ. 660 WELL 43 1 11 79

N. LAT 41.491 W. LONG 116.102

TEMPERATURE °C



GEOHERMAL LOG, AMAX EXPLORATION, INC., A.L.LANGE

25 01 80

PROJECT: TUSCARORA, NV

PROJ WELL DA MO YR
860 43 1 11 79

WELL TITLE
.4 KM S OF JACK CREEK LODGE

EDITOR URL DATE LP LI ISZ IST
CS / DF 26 9 79 1 0 1 1

YCM XCM N.LAT W.LONG
42.7000 19.8000 41.4914 116.1018

ELEV
1874.5

J	SEC START	SFS FND	CONDUCTVY & STD DEV.	
1	34.000	105.000	0.000	0.000
2	105.000	110.000	0.000	0.000
3	110.000	178.000	0.000	0.000
4	178.000	305.000	6.500	0.500

PRECEDING CONDUCTIVITY USED TO COMPUTE OTHERS

*** PREVIOUS SEGMENT USED TO EXTRAPOLATE TO DEPTH ***

PROJ	WELL	DA	MO	YR	DEPTH (M)	DEG C	DEG C/KM	SAMPLE NO.
860	43	1	11	79	0.500	6.960	99995.000	1
					1.000	6.960	160.000	2
					1.500	7.110	260.000	3
					2.000	7.290	360.001	4
					2.500	7.520	459.999	5
					3.000	7.720	400.000	6
					3.500	7.930	420.000	7
					4.000	8.160	450.001	8
					4.500	8.340	359.997	9
					5.000	8.460	240.002	10
860	43	1	11	79	5.500	8.550	180.000	11
					6.000	8.640	180.000	12
					6.500	8.700	119.999	13
					7.000	8.740	80.002	14
					7.500	8.740	0.000	15
					8.000	8.740	0.000	16
					8.500	8.740	0.000	17
					9.000	9.030	579.998	18
					9.500	9.170	279.999	19
					10.000	9.180	20.000	20
860	43	1	11	79	11.000	9.190	10.000	21
					12.000	9.220	30.001	22
					13.000	9.240	20.000	23
					14.000	9.250	10.000	24
					15.000	9.250	39.999	25
					16.000	9.310	20.000	26
					17.000	9.340	29.999	27
					18.000	9.490	150.002	28
					19.000	9.570	80.000	29
					20.000	9.610	39.999	30

860	43	1	11	79	22.000	9.680	35.000	31
					24.000	9.730	25.001	32
					26.000	9.790	30.000	33
					28.000	9.850	50.000	34
					30.000	10.000	55.000	35
					32.000	10.140	70.000	36
					34.000	10.290	75.000	37
					36.000	10.420	65.000	38
					38.000	10.520	50.000	39
					40.000	10.630	55.000	40
860	43	1	11	79	42.000	10.710	40.000	41
					44.000	10.830	60.000	42
					46.000	10.940	54.999	43
					48.000	11.060	50.000	44
					50.000	11.150	45.000	45
					52.000	11.270	59.999	46
					54.000	11.370	50.000	47
					56.000	11.480	55.000	48
					58.000	11.590	54.999	49
					60.000	11.700	55.000	50
860	43	1	11	79	62.000	11.810	55.000	51
					64.000	11.900	45.000	52
					66.000	11.980	40.000	53
					68.000	12.070	45.000	54
					70.000	12.160	45.000	55
					72.000	12.260	49.999	56
					74.000	12.360	50.000	57
					76.000	12.460	50.000	58
					78.000	12.540	40.000	59
					80.000	12.610	35.000	60
860	43	1	11	79	82.000	12.690	40.000	61
					84.000	12.610	-40.000	62
					86.000	12.960	175.000	63
					88.000	13.050	45.000	64
					90.000	13.120	35.000	65
					92.000	13.230	55.000	66
					94.000	13.350	59.999	67
					96.000	13.470	50.000	68
					98.000	13.590	59.999	69
					100.000	13.640	25.001	70
860	43	1	11	79	105.000	13.850	42.000	71
					110.000	13.990	28.000	72
					115.000	14.240	50.000	73
					120.000	14.590	70.000	74
					125.000	14.900	52.000	75
					130.000	15.120	44.000	76
					135.000	15.360	48.000	77
					140.000	15.660	60.000	78
					145.000	16.000	68.000	79
					150.000	16.300	60.000	80
860	43	1	11	79	155.000	16.560	52.000	81
					160.000	16.880	64.000	82
					165.000	17.200	64.000	83
					170.000	17.510	62.000	84
					175.000	17.880	74.000	85

			178.000	18.070	63.334	86
			183.000	18.510	88.000	87
			188.000	18.950	90.000	88
			193.000	19.350	78.000	89
			198.000	19.780	86.000	90
860	45	1 11 79	203.000	20.210	86.000	91
			208.000	20.650	88.000	92
			213.000	21.040	78.000	93
			218.000	21.450	82.000	94
			223.000	21.820	74.001	95
			228.000	22.210	78.000	96
			233.000	22.610	80.000	97
			238.000	23.020	82.000	98
			243.000	23.450	86.000	99
			248.000	23.870	84.000	100
660	43	1 11 79	253.000	24.290	84.000	101
			258.000	24.720	86.000	102
			263.000	25.110	78.000	103
			268.000	25.530	84.000	104
			273.000	25.920	78.000	105
			278.000	26.310	78.000	106
			283.000	26.650	68.000	107
			288.000	27.050	80.000	108
			293.000	27.420	74.000	109
860	43	1 11 79	298.000	27.840	84.000	110
			303.000	28.230	78.001	111
			305.000	28.270	19.999	112

SURFACE INTERCEPT FOR SEGMENT 1 = 8.657

SEG	Z START	T START	Z END	T END	COND	%	DCON	GRADIENT	S.D.	HFU	%	DHF	T AT 100M	KM
1	54.000	10.290	105.000	13.850	10.681	0.000	49.807	28.283		5.320		1.262	13.640	3.842
2	105.000	13.250	110.000	13.990	19.011	0.000	27.986	0.000		5.320		1.262	13.640	6.757
3	110.000	13.990	178.000	18.070	8.939	0.000	59.515	8.681		5.320		1.262	13.640	3.235
4	178.000	18.070	305.000	28.270	6.500	0.500	20.833	13.195		5.320		1.262	13.640	2.429

PRECEDING SEGMENT USED FOR EXTRAPOLATION

LITHOLOGIC LOG

Project: 860-43Elevation: 6120Date Drilled: 9/13-20/79Location: 42N 52E Sec. 35, SE NW SWMethod: Rotary/Water

Depth (m)	Description
0 - 2.4m	soil and gravels/boulders of quartzite
2.4-24m	Basalt or andesite porphyry. Either a flow or welded ash flow. Med to dark gray with stony groundmass, 30-50% crystals of feldspar and pyroxenes. Minor qtz. Feldspars altered to tan, white and lime green clay. Both K-spar and plag. Mostly small crystals, however some large plag. phenocrysts. Some cuttings salt and pepper looking because of high content of tiny pyroxene crystals. Some large feldspars appear glassy and orange in color.
24-42m	Essentially same, interbedded zones of high and low phenocryst content, hi and low lime green clay alteration of feldspars
42-60m	color change to pinkish-gray. Finer grained, essentially aphanitic and stony with few crystals of feldspar visible. No large orange glassy feldspar phenocrysts as before. Minor amount tiny pyroxene crystals. Some qtz. Little lime green clay alteration of feldspars.
60-312m(TD)	Dark gray and pink and gray volcanic material as previously described. Extremely fine cuttings.
	Generally stony aphanitic groundmass containing 30-40% crystals of pyroxene and feldspar. Pyroxenes lend salt and pepper look to some cuttings, very small crystals. Feldspars generally small and white (altered to clay) Some plag. phenocrysts large with twinning visible. Plag. either altered to clay, gray and glassy looking or orange and glassy. Few lime green altered feldspars.
	Exposure to sun - excellent except early morning
	Vegetation - sage and grass
	Land use - residential area within 1/8 mile, recreational lodge located within 1/8 mile, near highway.
	Groundwater - some water lost continually while drilling. (water well 1/8 mile away produces at 70' (21m) water stands in this well at 12.5m) Stream located 40m from hole and flows year round.