



GL05592

FILE_CAB_DRAWER_

WA.

Field

Chem.

1

Analytical Report (Amax)
Field Chem 1. WA
1981

Sample No.	pH	Alk		SiO ₂	Ammonium Nitrogen
		CO ₃	HCO ₃		
		P	T		
14726	6.60	0 -	40 - 80	1.3 13 ppm	.5
14727	7.74	0 -	131 - 262	1.4 14 ppm	.7
14728	7.41	0 -	67 - 134	1.3 13 ppm	.5
14729	8.06	0 -	89 - 178	1.1 11 ppm	.6
14730	7.82	0 -	90 - 180	.8 8 ppm	.4
15040	8.39	4 - 16	Did not reset to 25°C 171 - 326	1.2 12 ppm	1.1
15041	6.79	0 -	38 - 76	1.4 14 ppm (has yellow tint)	.8
15042	7.99	0 -	118 - 236	11 ppm	.2
14731	7.66	0	50 - 100	1.25 12.5 ppm	.7
14732	7.58	0	70 - 140	1.30 13 ppm	.6
14733	6.88	0	52 - 104	1.70 17 ppm	.7
14734	7.59	0	38 - 76	1.22 12.5 ppm	.6
14735	7.48	0	54 - 108	1.57 15.7 ppm	.6
14736	8.30	0	215 - 430	1.60 16 ppm	.2 lots of precipitation
14737	6.60	0	34 - 68	2.07 20.7 ppm	.3
15011	7.74	0	82 - 164	1.17 11.7 ppm	.2
15012	7.15	0	66 - 132	2.12 21.2 ppm	.3
15013	7.32	0	38 - 76	1.20 1.2 ppm	.3
15014	7.49	0	64 - 128	1.17 11.7 ppm	.5
15015	7.30	0	45 - 90	1.52 15.2 ppm	.5
15016	8.12	0	124 - 248	2.30 2.3 ppm	.6
15017	6.10	0	7 - 14	.99 9.9 ppm	.6

* Did not reset to "0" (zero).

Sample number	pH	P		Alk. T		SiO ₂		Ammonium Nitrogen
		CO ₃		HCO ₃				
15018	7.7	0		172-344		2.4	24 ppm	.5
15019	7.94	0		150-300		2.35	23.5 ppm	.3
15020	7.10	0		17-34		1.35	13.5 ppm	.4
15043	8.62	62	*	607		.3	3 (2.3) ppm	< 3 ppm ~22 ppm off scale orange
15044	6.80	0		49-98		1.95	19.5 ppm	.4
15045	7.64	0		40-80		1.75	17.5 ppm	.5
15046	7.84	0		45-90		2.65	26.5 ppm	.5
LAB #3		7/31/81						
14738	6.66	0		71 142		1.1	11	0
14739	5.70	0		3 6		.7	7	.1
14740	7.05	0		37 74		.9	9	.2
14741	5.77	0		17 34		1.1	11	.1
14742	6.61	0		16 32		1.4	14	.2
14743	6.14	0		6 12		1.0	10	.5
14744	6.33	0		31 62		1.3	13	0
14745	6.57	0		47 94		1.1	11	0
15021	6.80	0		23 46		.8	8	0
15022	8.33	4 16		40 - 64		1.9	19	.1
15023	7.06	0		32 64		1.3	13	.2
15024	6.93	0		40 80		2.2	22	2.0
15047	6.85	0		52 104		1.4	14	.4
15048	7.71	0		110 220		1.4	14	.3

SAMPLE #	pH	P CO ₃	T HCO ₃	SiO ₂	Ammonium Nitrate
14746	7.57	0 - 120	60 - 120	^{.3} 3 ppm	
14747	7.3	0	95 - 190	^{.12} _{.7} 12 ppm	
14748	7.93	0	174 - 348	^{.13 7 ppm}	
14749	7.32	0	75 - 150	^{.14 13 ppm}	
15025	7.23	0	81 - 162	^{.11 14 ppm}	
15026	7.5	0	96 - 192	^{.15 11 ppm}	
15027	7.49	0	72 - 144	^{.6 15 ppm}	
15028	7.32	0	29 - 58	^{.8 6 ppm}	
15030	6.65	0	13 - 26	^{.10 8 ppm}	
15029	7.78	0	91 - 182	^{.9 10 ppm}	
15031	6.68	0	13 - 26	^{.10 9 ppm}	
15049	8.13	0	184 - 368	^{.12 10 ppm}	
15050	8.07	0	580 - 1160	^{.11 2 ppm}	
15251	7.93	0	66 - 132	^{.11 11 ppm}	
15252	7.89	0	63 - 126	^{.7 11 ppm}	
15253	8.16	0	120 - 240	^{.7 7 ppm}	
15254	7.77	0	32 - 64	^{.6 7 ppm}	
15255	7.18	0	27 - 54	^{.14 6 ppm}	
15256	7.16	0	26 - 52	^{.15 14 ppm}	
15257	8.18	0	99 - 198	10 ppm	

Sample #	pH	P CO ₃	T HCO ₃	SiO ₂
15032	6.45	0	606-1212	1.4 14 ppm
15033	7.30	0	20-40	.7 7 ppm
15034	7.25	0	43-86	1.1 11 ppm
15035	8.60	4 = 16 P	27-47 94-172	1.1 11 ppm
15036	7.0	0	25-50	1.6 16 ppm
15037	6.75	0	24-48	1.5 15 ppm
15051	10.20	10 = 40	22 = 4	1.2 12 ppm
15052	7.77	0	70-140	.8 8 ppm
15053	7.98	0	91-182	.7 7 ppm
15260	6.34	0	4-8	.5 5 ppm
15261	9.21	5-20	91-162	1.0 6 ppm

SAMPLE #	pH	CO ₃	HCO ₃	SiO ₂
✓ 15038	6.70	0	56-112	1.2 12 ppm
✓ 15039	5.7	0	8-16	.8 8 ppm
15258	7.6	0	146-292	1.1 11 ppm
15259	7.95	0	132-264	.7 7 ppm
✓ 15262	7.50	0	85-170	.8 8 ppm
✓ 15263	6.15	0	28-56	2.3 23 ppm
✓ 15264	6.10	0	23-46	1.9 19 ppm
✓ 15265	6.95	0	41-82	.7 7 ppm
✓ 15266	6.50	0	16-32	.5 5 ppm
✓ 15267	6.45	0	7-14	.4 4 ppm
✓ 15268	9.60	9=32	20-40	1.7 17 ppm
✓ 15275	7.95	0	31-62	.4 4 ppm
✓ 15276	6.50	0	20-40	.6 6 ppm
✓ 15277	8.10	0	50-100	.25 2.5 ppm
✓ 15278	8.00	0	36-72	.6 6 ppm
✓ 15279	6.80	0	10-20	.35 3.5 ppm
✓ 15280	7.00	0	10-20	.4 4 ppm

AIK

Sample # pH CO₃ HCO₃ SiO₂ (ppm)

15070	7.23	0	36-72	3.2 32
15071	6.67	0	13-26	2.2 22
15072	6.66	0	37-74	3.3 33
15073	6.40	0	8-16	1.55 15.5
15074	7.49	0	47-94	1.05 10.5
15075	6.56	0	778- ¹⁵⁵⁶	5.3 53
15269	5.96	0	5-10	0.7 7
15271	7.47	0	80-160	3.7 37
15272	7.12	0	24-48	3.1 31
15273	7.30	0	44-88	3.2 32
15274	7.41	0	27-54	4.1 41
15275				
15281	6.85	0	40-80	4.8 48
15282	6.73	0	76-152	5.5 55
15283	6.58	0	29-58	4.0 40
15284	6.97	0	35-70	4.4 44
15285	7.56	0	65-130	4.3 43
15286	7.35	0	53-106	4.0 40
15287	7.14	0	35-70	4.7 47
15288	7.08	0	41-82	4.05 40.5
15289	6.69	0	53-106	4.5 45

SAMPLE #	pH	P CO ₃	T HCO ₃	SiO ₂
15076	7.00	0	431-862	^{7.2} 72
15077	6.50	0	9-18	^{2.3} 23
15078	6.75	0	10-20	^{3.2} 32
15079	7.00	0	1315-2630	^{7.2} 72
15080	6.30	0	13-26	^{3.05} 30.5
15081	6.76	0	18-36	^{1.4} 14
15082	7.14	0	23-46	^{4.1} 41
15091	6.28	0	487-974	^{6.4} 64
15092	6.85	0	223-446	^{6.0} 60
15093	6.33	0	718-1436	^{6.0} 60
15094	7.02	0	30-60	^{3.5} 35
15095	7.10	0	31-62	^{3.9} 39
15096	7.00	0	65-130	^{4.6} 46
15097	6.60	0	40-80	^{3.9} 39
15290	7.30	0	62-124	^{2.7} 27
15291	7.60	0	61-122	^{3.4} 34
15292	7.00	0	26-52	^{3.4} 34
15293	7.00	0	41-82	^{3.3} 33
15294	7.30	0	14-28	^{3.6} 36
15295	6.20	0	7-14	^{2.7} 27
15296	7.40	0	26-52	^{2.6} 26
15297	7.30	0	26-52	^{2.7} 27
15298	6.30	0	11-22	^{2.2} 22
15299	8.10	0	85-190	^{2.8} 28

AIK.

Sample #	pH	CO ₃	HCO ₃	SiO ₂ (ppm)
15083	7.5	0	50 - 100	28 ppm
15084	7.1	0	37 - 74	34 ppm
15085	7.3	0	36 - 72	35 ppm
15086	6.3	0	19 - 38	24 ppm
15087	7.0	0	37 - 74	24 ppm
15088	6.3	0	13 - 26	22 ppm
15089	7.5	0	26 - 52	17 ppm
15090	7.0	0	410 - 820	52 ppm
15098	7.0	0	20 - 40	14 ppm
15099	8.9	12 - 48	130 - 212	18 ppm
15100	6.50	0	84 - 168	12 ppm
15101	6.73	0	49 - 98	12 ppm
15102	6.56	0	10 - 20	11 ppm
15103	7.11	0	12 - 24	14 ppm
15104	7.14	0	18 - 36	20 ppm
15105	7.16	0	20 - 40	12 ppm
15106	6.36	0	12 - 24	14.5
15111	8.39	4 - 16	245 - 474	35
15112	7.14	0	31 - 62	21.5
15113	6.51	0	25 - 50	19
15114	6.48	0	286 - 572	43
15115	6.65	0	433 - 866	50
15116	6.50	0	164 - 328	44
15117	6.47	0	403 - 806	44

Sample number	pH	^P CO ₃	^T HCO ₃	SiO ₂ (ppm)
15107	7.93	0	8-16	3.9 39
15108	9.45	10	17	4.0 40
15109	9.43	9	19	3.4 34
15110	6.83	0	12-24	3.0 30
15118	6.09	0	12-24	2.5 25
15119	7.34	0	74-148	3.9 39
15120	8.68	5-20	83-146	4.1 41
15121	7.62	0	72-144	4.2 42
15122	7.60	0	35-70	4.0 40
15123	7.96	0	83-166	3.6 36
15124	6.28	0	4-8	1.3 13
15125	6.55	0	6-12	1.5 15
15126	7.40	0	26-52	1.4 14
15127	6.02	0	4-8	2.1 21
15140	6.20	0	6-12	1.2 12
15141	6.10	0	4-8	1.15 11.5
15142	6.29	0	8-16	0.8 8
15143	7.29	0	30-60	1.9 19
15144	6.55	0	8-16	2.1 -21
15145	6.60	0	8-16	1.5 15

SAMPLE NUMBER	pH	CO ₃	HCO ₃	SiO ₂ ppm
15128	7.0	0	973-1946	65
15129	7.3	0	36-72	25
15130	6.6	0	22-44	7
15131	7.2	0	23-46	20
15132	7.4	0	27-54	30
15133	3.87	—	—	8
15134	7.45	0	53-106	10
15135	6.28	0	11-22	21
15136	6.38	0	11-22	13
15137	6.85	0	24-48	17
15138	5.35	0	2-4	4
15139	5.98	0	9-18	13
15146	6.65	0	18-36	20
15147	7.15	0	31-62	28
15148	7.95	0	127-254	19
15149	8.96	6-24	15-6	31
15150	7.87	0	27-54	37
15151	7.19	0	17-34	16
15152	8.83	7-28	30-32	32

Sample	pH	CO ₃	HCO ₃	SiO ₂ (ppm)
15300	7.93	0	118-236	1.2 12
15301	7.95	0	111-222	1.6 16
15302	7.73	0	33-66	.9 9
15303	6.78	0	698-1396	5.4 54
15304	5.96	0	4-8	.4 4
15305	7.74	0	154-308	3.6 36
15306	6.56	0	16-32	.8 8
15307	6.94	0	665-1330	10.7 107
15308	7.04	0	656-1312	10.6 106
15309	6.88	0	40-80	1.1 11
15310	6.60	0	16-32	1.4 14
15311	8.00	0	39-78	1.0 10
15312	6.22	0	17-34	1.2 12
15313	7.70	0	35-70	1.6 16
15314	7.50	0	48-96	1.7 17
15315	7.70	0	34-68	1.6 16
15153	6.20	0	3-6	.4 4
15154	7.00	0	13-26	1.2 12
15155	7.30	0	24-48	.7 7
15156	7.60	0	17-34	.7 7
15157	7.00	0	18-32	.6 6
15158	7.50	0	21-42	.6 6
15159	8.35	8	116-85 -108	5.8 58
15160	7.80	0	29-58	.8 8
15161	7.46	0	20-40	1.0 10
15162	7.14	0	22-44	1.0 10

St Helens area

Sample	pH	CO ₃	HCO ₃	SiO ₂	
15316	7.80	0	91 - 182	21	2.11
15317	6.5	0	17 - 38	12.5	1.25
15318	7.25	0	66 - 132	14	1.4
15319	7.40	0	37 - 74	18	1.8
15320	6.80	0	32 - 64	19	1.9
15321	5.50	0	6 - 12	19	1.9
15322	6.62	0	5 - 10	6	.6
15323	6.67	0	9 - 18	10	1.0
15324	6.50	0	45 - 90	24	2.4
15325	6.43	0	21 - 42	25	2.5

definitely
meteoric
H₂O

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 10/8/81

REQ. NO. 12438 JOB NO. _____

ANALYST TC.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY ALAN SHENKER

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE Na-K-Ca	Qtz.	Chal.	AmSi.		
01	W14745	8	.3	31	9	27	31	-17	75	44	-36		
02	746	5.1	.3	34	5	10	32	-21	39	7	-65		
03	747	9	1.0	52	12	25	33	-1	72	40	-39		
04	748	15	1.2	53	40	13	34	6	48	15	-59		
05	749	9.1	1.0	45	10	28	35	1	77	45	-35		
06	W15025	11	1.9	42	9	33	36	17	83	52	-30		
07	026	9.8	1.6	54	10	23	37	9	69	37	-42		
08	027	14	1.8	27	12	33	38	24	83	52	-30		
09	028	2.5	.4	16	3	12	39	-11	45	13	-61		
10	W15029	7.1	1.2	49	12	17	40	2	57	25	-51		
11	030	3	.3	4	.8	20	41	2	63	31	-46		
12	031	3.6	1.5	5	.7	20	42	36	63	31	-46		
13	047	6.6	3.2	35	8	84	43	28	128	100	8		
14	048	9.7	1.9	66	17	26	44	10	74	42	-38		
15	049	110	69	66	210	24	45	¹⁴⁸ /279	70	39	40		
16	050	23,000	2000	49	44,000	10	46	⁷⁶³ /268	39	7	-65		
17	W15251	10	1.9	29	9	24	47	22	70	39	-40		
18	252	59	2.4	31	7	23	48	22	69	37	-42		
19	253	41	2.7	49	39	18	49	33	60	27	-49		
20	254	27	.2	50	6	16	50	-23	55	23	-53		
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
Determination-AA.

REMARKS: THE REMAINDER OF THE REQUESTED ANALYSES WILL BE REPORTED OUT AT A LATER DATE

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. ALAN SHENKER At _____
2. GEOTHERMAL OFFICE At _____
3. ELSIE ROWE At _____
4. HARRY J. OLSON

LAB Amax-Denver

ANALYTICAL REPORT

DATE 12-8-81

REQ. NO. 12438 JOB NO. _____

ANALYST MS + PK

PROJECT 686

TYPE SAMPLES Geothermal Waters

REQUESTED BY Alan E. Shenker

	SAMPLE	B ppm	SO ₄ ppm	Cl ppm	F ppm	Cond mhos/cm		SAMPLE					
*	01	W15251	<.2	23	2.4	.2	280	31					
	02	252	<.2	<10	2.0	.1	260	32					
	03	253	<.2	130	1.8	.3	730	33					
	04	W15254	1.6	140	2.2	.5	490	34					
	05							35					
	06							36					
	07							37					
	08							38					
	09							39					
	10							40					
	11							41					
	12							42					
	13							43					
	14							44					
	15							45					
	16							46					
	17							47					
	18							48					
	19							49					
	20							50					
	21							51					
	22							52					
	23							53					
	24							54					
	25							55					
	26							56					
	27							57					
	28							58					
	29							59					
	30							60					

METHODS: Digestion-

Sample Weight-

Determination- B - Carminic Acid; SO₄ - Turbidimetric; Cl - Mercurimetric
 Titration; f - Specific Ion Electrode; Conductivity - Wheatstone Bridge

REMARKS:
 * These answers were previously reported out as W15051-054.

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. Harry Olson At Geothermal
 2. Dean Pilkington At "
 3. Geothermal Office At "
 4. E.J. Rowe West Cedar

LAB Amax-Denver

ANALYTICAL REPORT

DATE 1-6-82

REQ. NO. 12438 JOB NO. _____

ANALYST P.P

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY A.E. Shenker

	SAMPLE	ppb Cu	ppb Mo				SAMPLE					
01	W14745	2	<2				31					
02	46	<2	2				32					
03	47	<2	<2				33					
04	48	<2	<2				34					
05	49	<2	2				35					
06	W15025	2	8				36					
07	26	2	20				37					
08	27	3	4				38					
09	28	3	2				39					
10	29	3	2				40					
11	30	<2	<2				41					
12	31	2	2				42					
13	W15047	<2	<2				43					
14	48	2	26				44					
15	49	3	9				45					
16	50	2	60				46					
17	W15251	<2	<2				47					
18	52	<2	<2				48					
19	53	2	2				49					
20	54	3	5				50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
Determination- Colorimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. D. Pilkington At Geothermal
2. H.J. Olson At "
3. Geothermal Office At "
4. E.J. Rowe @ Denver Office

AMAX-DENVER

ANALYTICAL REPORT

DATE December 8, 1981
ANALYST M.S. PK
TYPE SAMPLES GEOTHERMAL WATERS

REQ. NO. 12438 JOB NO. _____
PROJECT 686
REQUESTED BY ALAN E. SHENKER

	SAMPLE	PPM B	PPM SO ₄	PPM CL	PPM F	COND.		SAMPLE											
01	W14745	<.2	21	1.4	.2	250	31												
02	46	<.2	<10	1.0	.2	250	32												
03	47	<.2	25	2.0	.1	420	33												
04	48	<.2	<10	1.8	.1	620	34												
05	49	<.2	25	2.0	.2	370	35												
06	W15025	<.2	10	2.6	.2	340	36												
07	26	<.2	23	2.0	.1	420	37												
08	27	<.2	<10	2.8	.2	310	38												
09	28	<.2	<10	1.4	.2	130	39												
10	29	<.2	20	1.6	.2	390	40												
11	30	<.2	<10	1.6	.1	46	41												
12	31	<.2	<10	1.6	.1	52	42												
13	W15047	<.2	22	1.4	.1	240	43												
14	48	<.2	56	2.6	.3	330	44												
15	49	.2	1200	31	.1	2900	45												
	50	<.2	250, (X)	2800	.2	66,000	46												
	51	<.2	23	2.4	.2	280	47												
18	52	<.2	<10	2.0	.1	260	48												
19	53	<.2	130	1.8	.3	730	49												
20	54	1.6	140	2.2	.5	490	50												
21							51												
22							52												
23							53												
24							54												
25							55												
26							56												
27							57												
28							58												
29							59												
30							60												

METHODS: Digestion- Sample Weight-

Determination- B → CARMINIC ACID - COLORIMETRIC

SO₄ → TURBIDIMETRIC

Cl → MERCURIMETRIC TITRATION

F → SPECIFIC ION ELECTRODE

COND → WHEATSTONE BRIDGE

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

1. Harry Olson At Geothermal
2. Geothermal Office At _____
3. E. J. Rowe At W. Center

Amax

ANALYTICAL REPORT

DATE 12-11-81

REQ. NO. 12438 JOB NO.

ANALYST PK

PROJECT 686

TYPE SAMPLES W

REQUESTED BY Alan Shenker

	SAMPLE	Li ppm					SAMPLE					
01	W14745	<.1					31					
02	746	<.1					32					
03	747	<.1					33					
04	748	<.1					34					
05	749	<.1					35					
06	W15025	<.1					36					
07	026	<.1					37					
08	027	<.1					38					
09	028	<.1					39					
10	029	<.1					40					
11	030	<.1					41					
12	031	<.1					42					
13	W15047	<.1					43					
14	048	<.1					44					
15	049	<.1					45					
16	050	3.0					46					
17	W15251	<.1					47					
18	252	<.1					48					
19	253	<.1					49					
20	254	<.1					50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion-

Sample Weight-

Determination- A.A.

REMARKS: Other results will follow.

NOTE: Mail Original to
MAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Harry Olson At
2. Geothermal Office At
3. E. J. Rowe At

LAB Amax-Denver

ANALYTICAL REPORT

DATE 1-12-82

REQ. NO. 12438 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal Waters

REQUESTED BY Shenker

	SAMPLE			* Mn ppb		SAMPLE					
01	W14745			30		31					
02	746			<10		32					
03	747			<10		33					
04	748			20		34					
05	749			130		35					
06	W15025			110		36					
07	026			<10		37					
08	027			40		38					
09	028			10		39					
10	029			30		40					
11	030			<10		41					
12	031			40		42					
13	W15047			220		43					
14	048			<10		44					
15	049			590		45					
16	050			140		46					
17	W15251			140		47					
18	252			10		48					
19	253			60		49					
20	254			<10		50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion- Sample Weight-
Determination-A.A.

REMARKS: * These answers were recently reported out incorrectly
AS PPM's instead of PPB's.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. H. D. Pilkington At Geothermal
2. Harry Olson At "
3. Geothermal Office At "
4. E. J. Rowe
LD. Gragg

Amax - Denver

ANALYTICAL REPORT

DATE 1-5-82 REQ. NO. 12439 JOB NO. _____
 ANALYST PK, TC, MS PROJECT 686
 TYPE SAMPLES w REQUESTED BY W. Auramenko

	SAMPLE	Na ppm	K ppm	Ca ppm	Mg ppm	SiO ₂ ppm ²		SAMPLE	B ppm	SO ₄ ppm ⁴	Cl ppm	F ppm
01	w15124	1.2	.2	1.2	<.5	<10	31		<.2	<10	1.2	<.1
02	125	2.1	.2	4.4	.6	<10	32		<.2	<10	1.7	<.1
03	126	4.0	.3	13.	1.0	11	33		<.2	<10	1.6	<.1
04	127	1.7	.8	1.1	<.5	20	34		<.2	<10	1.0	<.1
05	w15140	1.0	.1	1.0	.6	<10	35		<.2	<10	1.1	<.1
06	141	1.3	.2	1.0	<.5	<10	36		<.2	<10	1.8	<.1
07	142	3.9	1.6	1.9	.9	<10	37		<.2	<10	3.3	<.1
08	143	4.1	1.0	15.	3.0	22	38		.2	<10	1.6	.1
09	144	2.6	.4	4.0	.8	22	39		<.2	<10	1.9	<.1
10	145	4.7	.5	6.0	.9	19	40		<.2	<10	3.7	<.1
11							41					
12							42					
13							43					
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-

REMARKS: Determination- Na, K, Ca, Mg, SiO₂ were done by AA.
 B, + SO₄ - Turbidimetric; Cl - Titrametric and F - electrometric

Li results will follow AT A later date,

NOTE: Mail Original to
 MAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. Dean Pilkington At _____
 2. Harry Olsson At _____
 3. E. J. Rouse At _____
 4. Geothermal Office

LAB Amax - Denver

ANALYTICAL REPORT

DATE 11-16-81

REQ. NO. 12439 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES W

REQUESTED BY Walter Avramenko

	SAMPLE	Na ^{ppm}	K ^{ppm}	Ca ^{ppm}	Mg ^{ppm}	SiO ₂ ^{ppm}		SAMPLE	Na-K-Ca	Qtz	Chal.	Am.S:
01	W15124	1.2	.2	1	<.5	<10	31		<7	<39	<7	<-65
02	125	2.1	.2	4	.6	<10	32		<-8	<39	<7	<-65
03	126	4.0	.3	13	1	11	33		11	42	8	-63
04	127	1.7	.8	1	<.5	20	34		41	63	31	-46
05	W15140	1.0	.1	1	.6	<10	35		<-8	<39	<7	<-65
06	141	1.3	.2	1	<.5	<10	36		<7	<39	<7	<-65
07	142	3.9	1.6	2	.9	<10	37		<55	<39	<7	<-65
08	143	4.1	1.0	15	.3	22	38		11	67	35	-43
09	144	2.6	.4	4	.8	22	39		7	67	35	-43
10	145	4.7	.5	6	.9	19	40		10	62	29	-48
11							41					
12							42					
13							43					
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
Determination-

REMARKS: These elements run by AA. Other results will follow.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. Walter Avramenko At _____
 - 2. Dean Pilkington At _____
 - 3. Harry Olson At _____
 - 4. Geothermal Office
 - 5. E.O. Rowe

LAB AMAX-Denver

ANALYTICAL REPORT

DATE 1-5-82

REQ. NO. 12439 JOB NO. _____

ANALYST P.P. 3 T.C. + PK

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY W. Arramenko

	SAMPLE	ppb Cu	ppb Mo	ppb Mn	ppm Total Cond		SAMPLE						
01	W-15124	<2	<2	10	15		31						
02	25	25	7	20	43		32						
03	26	<2	<2	20	110		33						
04	27	<2	3	10	22		34						
05	W-15140	<2	<2	<10	23		35						
06	41	<2	<2	10	16		36						
07	42	<2	3	70	16		37						
08	43	<2	2	20	130		38						
09	44	<2	<2	20	43		39						
10	45	<2	<2	50	71		40						
11							41						
12							42						
13							43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-

Sample Weight-

Determination- Colorimetric for Mo + Cu ; Mn done by AA;

REMARKS: Conductivity done by Cond. Bridge.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

1. W. Arramenko At _____
2. Geothermal Office At _____
3. Dean Pilkington At _____
4. E.J. Rowe @ Denver Office
5. Harry Olson

DEN 121974

LAB AMAX- DENVER

ANALYTICAL REPORT

DATE 1/14/82

REQ. NO. 12439 JOB NO. _____

ANALYST MS

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY WALTER AVRAMEKO

	SAMPLE	PPM L1				SAMPLE					
01	W15124	<.1				31					
02	125	<.1				32					
03	126	<.1				33					
04	127	<.1				34					
05	W15140	<.1				35					
06	141	<.1				36					
07	142	<.1				37					
08	143	<.1				38					
09	144	<.1				39					
10	145	<.1				40					
11						41					
12						42					
13						43					
14						44					
15						45					
16						46					
17						47					
18						48					
19						49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion- Sample Weight-
Determination- L1 Run A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. D. Gragg At GEOHERMAL
2. H. J. OLSON At "
3. DEAN PLKINGTON At "
4. GEOHERMAL OFFICE At "
5. E. J. ROWE At CEDAR

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 11/18/81

REQ. NO. 12440 JOB NO. _____

ANALYST T.C.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY WALTER AURAMENKO

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE	PPM Li	Na-K-Ca	Qtz	Chal.	Am.Si.
01	W15107	390	7.7	48	<.5	48	31		.3	86	100	70	-16
02	108	160	1.1	22	<.5	46	32		<.1	36	98	68	-17
03	109	76	.4	9	<.5	37	33		<.1	20	88	57	-26
04	110	3.4	1.7	2	1	32	34		<.1	56	82	51	31
05	118	2.8	.8	4	2	29	35		<.1	23	78	47	-34
06	119	8.0	2.9	19	19	48	36		<.1	37	100	70	-16
07	120	11	2.5	27	16	52	37		<.1	30	104	74	-12
08	121	3.4	3.7	35	24	54	38		<.1	26	105	76	-11
09	122	15	2.1	18	10	52	39		<.1	35	104	74	-12
10	W15123	9.6	1.4	30	23	49	40		<.1	14	101	71	-15
11							41						
12							42						
13							43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
Determination- A.A.

REMARKS: THE REMAINING REQUESTED RESULTS WILL BE REPORTED OUT AT A LATER DATE.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. DEAN PILKINGTON At _____
 - 2. W. AURAMENKO At _____
 - 3. H. J. OLSON At _____
 - 4. GEOTHERMAL OFFICE
 - 5. ELSIE ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/11/82

REQ. NO. 12440 JOB NO. _____

ANALYST T.C.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM Cl	PPM F				SAMPLE						
01	W15107	690	.7				31						
02	108	200	.7				32						
03	109	97	.8				33						
04	110	3.4	.1				34						
05	118	2.8	<.1				35						
06	119	2.6	.1				36						
07	120	6.6	.5				37						
08	121	86	.6				38						
09	122	20	.4				39						
10	W15123	15	.4				40						
11							41						
12							42						
13							43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
 Determination- Cl IS BY MERCURIMETRIC TITRATION
 F IS BY SPECIFIC ION ELECTRODE

REMARKS:

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

- Copies to:
- 1. DEAN PILKINGTON At _____
 - 2. H.J. OLSON At _____
 - 3. WALTER AVRAMENKO At _____
 - 4. GEOTHERMAL OFFICE
 - 5. E.J. ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1-12-82

REQ. NO. 12440 JOB NO. _____

ANALYST P.P.

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY W. ARRAMENKO

	SAMPLE	ppb Cu	ppb Mo					SAMPLE					
01	W15107	<2	15					31					
02	08	<2	18					32					
03	09	<2	15					33					
04	110	<2	3					34					
05	118	<2	2					35					
06	19	<2	2					36					
07	20	<2	3					37					
08	21	<2	4					38					
09	22	<2	5					39					
10	23	<2	3					40					
11								41					
12								42					
13								43					
14								44					
15								45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion- Sample Weight-
Determination- Colorimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At Geothermal
2. Harry Olson At "
3. D. Gragg At "
4. Geothermal Office
5. E.J. Rowe

@ Denver Office
DEN 121974

LAB Amax - Denver

ANALYTICAL REPORT

DATE 1-7-82

REQ. NO. 12440 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal

REQUESTED BY Dean Pilkington

	SAMPLE			Mn ppb	Cond. mmhos/cm		SAMPLE						
01	W15107			<10	2500	31							
02	108			<10	840	32							
03	109			<10	480	33							
04	110			<10	46	34							
05	W15118			<10	50	35							
06	119			20	270	36							
07	120			<10	300	37							
08	121			87	540	38							
09	122			<10	260	39							
10	123			<10	370	40							
11						41							
12						42							
13						43							
14						44							
15						45							
16						46							
17						47							
18						48							
19						49							
20						50							
21						51							
22						52							
23						53							
24						54							
25						55							
26						56							
27						57							
28						58							
29						59							
30						60							

METHODS: Digestion-

Sample Weight-

Determination- Mn by AA. Conductivity by Cond. Bridge.

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At _____
- 2. Harry Olson At _____
- 3. Geothermal Office At _____
- 4. E.J. Rowe

LAB Amex - Denver



ANALYTICAL REPORT

DATE 10-19-81

REQ. NO. 12441 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES water

REQUESTED BY Walter Avramenko

	SAMPLE	Na ^{ppm}	K ^{ppm}	Ca ^{ppm}	Mg ^{ppm}	SiO ₂ ^{ppm}		SAMPLE Na-K-Ca	Qtz.	Chal.	AmSi.		
01	w15076	1000	.50	41	4.7	110	31	168	143	116	22		
02	077	3	.1	4.2	.8	19	32	-19	62	29	-48		
03	078	2.6	1.3	3.5	.8	34	33	36	85	54	-29		
04	079	1700	75	210	89	110	34	158	143	116	22		
05	080	3.2	1.9	4.5	1.1	31	35	43	81	49	-32		
06	081	3.1	2.5	5.8	2.9	<10	36	46	239	27	2-65		
07	082	5.6	2.6	6.5	3.4	44	37	50	96	66	-19		
08	w15091	280	9.8	160	110	100	38	64	137	110	17		
09	092	77	10	41	43	120	39	78	148	122	26		
10	093	280	24	13	130	110	40	185	143	116	22		
11	094	5.2	3.7	10	5.6	49	41	51	101	71	-15		
12	095	5.2	3.5	10	5.1	47	42	50	99	69	-16		
13	096	12	9.5	18	12	51	43	76	103	73	-13		
14	097	6.8	5.7	13	7.4	47	44	61	99	69	-16		
15	w15290	9.2	1.6	51	15	32	45	9	82	51	-31		
16	291	9.1	2.1	28	4.1	44	46	24	96	66	-19		
17	292	4.4	3.2	9.5	4.6	47	47	47	99	69	-16		
18	293	9.4	1.5	13	4.7	39	48	29	91	60	-24		
19	294	3.9	3.0	5.0	1.9	47	49	56	99	69	-16		
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-

Sample Weight-

Determination-

REMARKS: All elements run by A.A. Other results will follow later.

NOTE: Mail Original to AMAX Exploration, Inc., P. O. Box C Denver, Colorado 80226

- Copies to:
1. Walter Avramenko At _____
 2. Dean Pilkington At _____
 3. Harry J Olson At _____
 4. Geothermal Office
 5. E.J Rowe

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 2-8-82
 ANALYST M.S
 TYPE SAMPLES GEOHERMAL WATERS

REQ. NO. 12441 JOB NO. _____
 PROJECT 686
 REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM B	PPM SO ₄	PPM Cl	PPM F	PPb Mn	uwhrs/cm COND.							
01	W15076	11	150	940	5.2	73	4500							
02	77	<.2	17	5.4	<.1	<10	45							
03	78	<.2	<10	2.6	<.1	<10	41							
04	79	48	<10	1400	.2	380	7800							
05	80	<.2	<10	2.0	<.1	20	51							
06	81	<.2	<10	3.2	.1	10	80							
07	82	<.2	<10	1.8	.1	<10	93							
08	W15091	<.2	<10	160	.2	1600	2400							
09	92	<.2	<10	9.0	.4	250	830							
10	93	.3	<10	13.0	.4	280	2400							
11	94	<.2	<10	3.0	.1	730	130							
12	95	<.2	<10	3.0	.1	<10	13							
13	96	<.2	11	9.4	.1	73	320							
14	97	<.2	<10	4.0	.1	<10	180							
15	W15290	<.2	21	67	.1	69	470							
16	291	<.2	<10	2.8	<.1	13	240							
17	292	<.2	<10	1.8	.1	19	110							
18	293	<.2	<10	1.4	.1	11	160							
19	294	<.2	<10	1.8	.1	45	67							
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														

METHODS: Digestion- Sample Weight-
 Determination- B → CARMINIC ACID - COLORIMETRIC COND. → WHEATSTONE BRIDGE
 SO₄ → TURBIDMETRIC

REMARKS:
 Cl → MERCURIMETRIC TITRATION
 F → SPECIFIC ION ELECTRODE
 Mn → A.A

NOTE: Mail Original to
 MA Exploration, Inc.,
 . O. Box C
 enver, Colorado 80226

- Copies to:
1. WALTER AVRAMENKO At GEOHERMAL
 2. H.J OLSON At "
 3. D. PILKINGTON At "
 4. D. GRAGG At "
 5. GEOHERMAL OFFICE At "
 6. E.J ROVE At CEDAR

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 3/2/82

REQ. NO. 12441 JOB NO. _____

ANALYST T.C. & P.K.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY W. AVRAMENKO

	SAMPLE	ppb Mo	ppb Cu					SAMPLE					
01	W15076	4	<2					31					
02	77	<2	<2					32					
03	78	<2	<2					33					
04	79	<2	<2					34					
05	80	8	<2					35					
06	81	<2	<2					36					
07	82	<2	<2					37					
08	91	<2	<2					38					
09	92	<2	<2					39					
10	W15093	<2	<2					40					
11	94	2	<2					41					
12	95	<2	<2					42					
13	96	8	<2					43					
14	97	<2	<2					44					
15	W15290	<2	<2					45					
16	91	2	<2					46					
17	92	4	<2					47					
18	93	2	<2					48					
19	94	<2	<2					49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion- Sample Weight-
Determination- COLORIMETRIC

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. W. AVRAMENKO At _____
2. D. PILKINGTON At _____
3. H.J. OLSON At _____
4. GEOTHERMAL OFFICE
5. E.J. ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/14/82
ANALYST M.S
TYPE SAMPLES GEOHERMAL OFFICE

REQ. NO. 12441 JOB NO. _____
PROJECT 686
REQUESTED BY AVRAMENKO

	SAMPLE	PPM Li				SAMPLE					
01	W15076	3.0				31					
02	77	<.1				32					
03	78	<.1				33					
04	79	5.0				34					
05	80	<.1				35					
06	81	<.1				36					
07	82	<.1				37					
08	W15091	<.1				38					
09	92	<.1				39					
10	93	0.3				40					
11	94	<.1				41					
12	95	<.1				42					
13	96	<.1				43					
14	97	<.1				44					
15	W15290	<.1				45					
16	291	<.1				46					
17	292	<.1				47					
18	293	<.1				48					
19	294	<.1				49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion- Sample Weight-
Determination- Li → A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. D. Gragg At GEOHERMAL
 - 2. H.J. Olson At "
 - 3. DEAN PILKINGTON At "
 - 4. GEOHERMAL OFFICE At "
 - 5. E.J. ROVE At CEDAR

LAB Amex - Denver

ANALYTICAL REPORT

DATE 11-10-81

REQ. NO. 12442 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES W

REQUESTED BY Walter Avramenko

	SAMPLE	Na ^{ppm}	K ^{ppm}	Ca ^{ppm}	Mg ^{ppm}	SiO ₂ ^{ppm}		SAMPLE	Na+K-Ca	Qtz.	Chal.	Am.Si.
01	W15083	10.	3.9	13.	7.5	50	31		54	102	72	-14
02	084	8.7	3.2	10.	6.5	68	32		52	117	88	-1
03	085	7.5	2.8	10.	7.0	63	33		47	113	84	-4
04	086	3.1	1.3	5.8	2.8	37	34		29	88	57	-26
05	087	4.2	1.4	11.	6.2	42	35		23	94	63	-21
06	088	2.7	1.5	3.7	1.6	33	36		39	83	52	-30
07	089	3.8	.9	7.3	4.0	26	37		19	74	42	-38
08	090	140.	13.	78.	85.	110	38		81	143	116	22
09	W15295	2.	1.1	2.8	1.0	30	39		33	79	48	-33
10	296	5.4	1.5	11.	3.7	26	40		27	74	42	-38
11	297	5.6	3.3	8.8	3.8	41	41		51	93	62	-22
12	298	3.	.4	3.7	.9	24	42		9	70	39	-40
13	299	26.	1.8	33.	6.9	34	43		27	85	54	-29
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion-
Determination-

Sample Weight-

REMARKS: Elements run by AA. Other results To follow later.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- ✓ 1. Walter Avramenko At Geoth. Off.
 - 2. Dean Pilkington At Geoth. Off.
 - 3. Harry Olson At Geoth. Off.
 - 4. Geothermal Office
 - 5. E.J. Rowe

LAB AMAX - DENVER

ANALYTICAL REPORT

DATE 1/14/82

REQ. NO. 12442 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM Li					SAMPLE					
01	W15083	<.1					31					
02	84	<.1					32					
03	85	<.1					33					
04	86	<.1					34					
05	87	<.1					35					
06	88	<.1					36					
07	89	<.1					37					
08	90	0.3					38					
09	W15295	<.1					39					
10	296	<.1					40					
11	297	<.1					41					
12	298	<.1					42					
13	299	<.1					43					
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-

Determination- Li R₁₁W A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. D. Graag At GEOHERMAL
 - 2. H.J OLSON At "
 - 3. DEAN PILKINGTON At "
 - 4. GEOHERMAL OFFICE At "
 - 5. E.J ROWE At CEDAR

LAB Amxx-Denver

ANALYTICAL REPORT

DATE 1-15-82

REQ. NO. 12442 JOB NO. _____

ANALYST P.P & TC

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY Walter Avramenko

	SAMPLE	ppb Cu	ppb Mo				SAMPLE						
01	W15295	<2	<2				31						
02	96	<2	<2				32						
03	97	<2	<2				33						
04	98	<2	<2				34						
05	99	<2	<2				35						
06	W15083	<2	<2				36						
07	84	<2	2				37						
08	85	<2	<2				38						
09	86	<2	<2				39						
10	87	<2	<2				40						
11	88	<2	<2				41						
12	89	<2	<2				42						
13	90	<2	<2				43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
Determination- Colorimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. W. Avramenko At Geothermal
2. Geothermal Office At ..
3. D. Pilkington At ..
4. E. J. Rowe @ Denver Office

LAB Amex - Denver

ANALYTICAL REPORT

DATE 11-12-81

REQ. NO. 12443 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES w

REQUESTED BY Avramenko

	SAMPLE	Na ^{ppm}	K ^{ppm}	Ca ^{ppm}	Mg ^{ppm}	SiO ₂ ^{ppm}		SAMPLE	Na-K-Ca	Qtz.	Chel.	Am.S.
01	W15098	3.6	.7	8	3	37	31		11	88	57	-26
02	099	51.	4.8	.24	31	46	32		64	98	68	-17
03	100	68.	1.9	34	11	35	33		35	86	55	-28
04	101	20.	.6	19	10	22	34		8	67	35	-43
05	102	2.7	1.1	3	1	21	35		35	65	33	-45
06	103	3.0	1.0	5	1	32	36		25	82	51	-31
07	104	4.6	3.0	5	1	51	37		57	103	73	-13
08	105	3.3	.3	9	2	23	38		-8	69	37	-42
09	106	2.2	.7	4	1	22	39		18	67	35	-43
10	W15111	92.	11.	47	52	84	40		82	128	100	8
11	112	3.8	1.1	10	6	41	41		18	93	62	-22
12	113	3.9	1.3	8	5	33	42		26	83	52	-30
13	114	28.	4.0	79	77	110	43	} * 7	32	143	116	23
14	115	60.	10.	130	110	140	44		54	157	133	35
15	116	36.	4.7	32	38	110	45		54	143	116	23
16	117	74.	10.	110	90	130	46		59	152	127	31
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-

Determination- These elements were run by AA. Other results will follow at a later date.

REMARKS:

NOTE: Mail Original to AMAX Exploration, Inc., P. O. Box C Denver, Colorado 80226

- Copies to:
- 1. W. Avramenko At Geothermal
 - 2. D. P. Kington At "
 - 3. Harry Olson At "
 - 4. Geothermal Office
 - 5. E. J. Rowe

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 2-17-82

REQ. NO. 12443 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM B	PPM SO ₄	PPM Cl	PPM F	PPB Mn	uwhes/cm COND.								
01	W15098	<.2	<10	10.	<.1	15	83								
02	099	<.2	22	26.	.4	51	590								
03	100	2.6	19	76.	.1	630	620								
04	101	.8	<10	36.	<.1	370	330								
05	102	<.2	<10	2.0	<.1	<10	96								
06	103	<.2	<10	1.0	<.1	11	52								
07	104	<.2	<10	1.0	.1	12	66								
08	105	<.2	<10	1.5	<.1	<10	79								
09	106	<.2	<10	1.7	<.1	<10	54								
10	W15111	.5	<10	30.	.2	76	980								
11	112	<.2	<10	1.0	<.1	<10	120								
12	113	<.2	<10	1.2	<.1	<10	100								
13	114	<.2	14	2.0	.7	300	1000								
14	115	<.2	<10	4.1	.3	220	1100								
15	116	<.2	<10	3.8	.8	86	630								
16	117	<.2	<10	5.0	.3	320	1400								
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															

METHODS: Digestion-

Sample Weight-

Determination-B → CARMINIC ACID - COLORIMETRIC COND. → WHEATSTONE BRIDGE

SO₄ → TURBIDIMETRIC

Cl → MERCURIMETRIC TITRATION

F → SPECIFIC ION ELECTRODE

Mn → A.A

REMARKS:

NOTE: Mail Original to
MAM Exploration, Inc.,
P.O. Box C
Denver, Colorado 80226

Copies to:

1. WALTER AVRAMENKO At GEOHERMAL
2. H.J OLSON At "
3. D. PILKINGTON At "
4. D. GRAGG At "
5. GEOHERMAL OFFICE At "
6. E.J ROVE At CEDAR

LAB AMAX - DENVER

ANALYTICAL REPORT

DATE 1/13/82

REQ. NO. 12443 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM Li				SAMPLE					
01	W15098	<.1				31					
02	99	<.1				32					
03	100	0.2				33					
04	101	<.1				34					
05	102	<.1				35					
06	103	<.1				36					
07	104	<.1				37					
08	105	<.1				38					
09	106	<.1				39					
10	W15111	0.1				40					
11	112	<.1				41					
12	113	<.1				42					
13	114	<.1				43					
14	115	0.1				44					
15	116	<.1				45					
16	117	0.1				46					
17						47					
18						48					
19						49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion- Sample Weight-

Determination- Li → A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

1. D. Gragg At GEOHERMAL
2. H. J. OLSON At "
3. DEAN PIRKINGTON At "
4. GEOHERMAL OFFICE At "
5. E. J. ROWE At CEDAR

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 3/2/82

REQ. NO. 12443 JOB NO. _____

ANALYST T.C. P.K.

PROJECT 686

TYPE SAMPLES GEOHERMAL WATER

REQUESTED BY W. AVRAMENKO

	SAMPLE	Ppb Mo	Ppb Cu					SAMPLE					
01	W15098	2	<2					31					
02	99	2	<2					32					
03	100	<2	<2					33					
04	101	<2	<2					34					
05	102	<2	<2					35					
06	103	<2	<2					36					
07	104	<2	<2					37					
08	105	<2	<2					38					
09	106	<2	75					39					
10	W15111	<2	<2					40					
11	112	<2	<2					41					
12	113	<2	<2					42					
13	114	<2	<2					43					
14	115	<2	<2					44					
15	116	<2	<2					45					
16	117	<2	<2					46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion- Sample Weight-
Determination- COLORIMETRIC

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. W. AVRAMENKO At
2. D. PILKINGTON At
3. H. J. OLSON At
4. GEOHERMAL OFFICE
5. E. J. ROWE

LAB AMAX - DENVER

ANALYTICAL REPORT

DATE 9/28/81

REQ. NO. 12445 JOB NO. _____

ANALYST M.S AND P.K

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATERS

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE	PPM Li	Na.K.Ca	Qtz.	Chal.	AmSi.
01	W15032	53a	33.	190	46	36	31		2.5	¹⁰⁹ 156	87	(56)	-27
02	33	2.6	1.3	8	2	16	32		<.1	23	55	(23)	-53
03	34	3.3	1.6	15	8	18	33		<.1	20	60	(27)	-49
04	35	10.	.5	38	14	24	34		<.1	-9	70	(39)	-40
05	36	4.3	2.7	8	4	71	35		<.1	45	119	(90)	1
06	37	3.4	1.6	8	4	39	36		<.1	30	91	(60)	-24
07	W15051	52.	.6	3	3	35	37		<.1	45	86	(55)	-28
08	52	8.0	1.2	29	10	20	38		<.1	10	63	(31)	-46
09	53	5.1	1.1	26	24	16	39		<.1	7	55	(23)	-53
10	W15255	6.4	3.2	11	4	12	40		<.1	48	45	(13)	-61
11	56	9.7	2.0	7	2	35	41		<.1	47	86	(55)	-28
12	57	9.4	2.0	110	15	21	42		<.1	4	65	(33)	-45
13	58	40.	3.4	51	30	24	43		<.1	38	70	(39)	-40
14	59	6.5	.4	61	20	14	44		<.1	-21	51	(18)	-56
15	60	1.5	.5	2	3	11	45		<.1	18	42	(10)	-63
16	61	1.2	.4	6	47	23	46		<.1	-3	69	(37)	-42
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-

Determination- Na, K, Ca, Mg, SiO₂, Li → A.A

REMARKS:

B, SO₄, Cl → TO BE REPORTED AT A LATER DATE

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
1. WALTER AVRAMENKO At GEOTHERMAL
 2. DEAN PINKINGTON At "
 3. GEOTHERMAL OFFICE At "
 4. E. J. ROWE At DENVER LAB
 5. H. J. OLSON At GEOTHERMAL
At DEN 121974 x

LAB Amax - Denver

ANALYTICAL REPORT

DATE 3-23-82

REQ. NO. 12445 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal Waters

REQUESTED BY Auramenko

	SAMPLE	SO ₄ ppm					SAMPLE					
01	w15032	<10					31					
02	w15033	<10					32					
03	w15034	<10					33					
04	w15035	<10					34					
05	w15036	<10					35					
06	w15037	<10					36					
07	w15051	<10					37					
08	w15052	<10					38					
09	w15053	<10					39					
10	w15255	17					40					
11	w15256	<10					41					
12	w15257	240					42					
13	w15258	62					43					
14	w15259	10					44					
15	w15260	<10					45					
16	w15261	<10					46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
Determination- Turbidimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. Dean Pilkington At Geothermal
 - 2. Harry Olson At "
 - 3. Geothermal Office At "
 - 4. E.J. Rowe At W. Cedar

LAB Amax - Denver

ANALYTICAL REPORT

DATE 1-7-82

REQ. NO. 12445 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal

REQUESTED BY Auramenko

	SAMPLE	Mn ppb	Cond mmhos/cm		SAMPLE					
01	W15032	180	3800		31					
02	33	<10	82		32					
03	34	<10	170		33					
04	35	<10	340		34					
05	36	170	90		35					
06	37	<10	91		36					
07	W15051	15	260		37					
08	052	<10	250		38					
09	053	10	330		39					
10	W15255	12	140		40					
11	256	<10	100		41					
12	257	26	820		42					
13	258	24	640		43					
14	259	11	490		44					
15	260	<10	18		45					
16	261	19	330		46					
17					47					
18					48					
19					49					
20					50					
21					51					
22					52					
23					53					
24					54					
25					55					
26					56					
27					57					
28					58					
29					59					
30					60					

METHODS: Digestion-

Sample Weight-

Determination-Mn by AA. Conductivity by Conductivity Bridge.

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At _____
- 2. Harry Olson At _____
- 3. Geothermal Office At _____
- 4. E. J. Rowe

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 9/28/81

REQ. NO. 12446 JOB NO. _____

ANALYST M.S AND P.K

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATERS

REQUESTED BY DAVID GRAGG

		PPM	PPM	PPM	PPM	PPM		SAMPLE	PPM				
	SAMPLE	Na	K	Ca	Mg	SiO ₂		Na-K-Ca	Li	Qtz	Chal.	AmSi.	
01	W15038	4.2	.7	9	2.0	26	31	11	<.1	74	42	-38	
02	39	1.6	.4	3	1.0	18	32	8	<.1	60	27	-49	
03	W15262	16.	48.	32	11.	26	33	125/378	<.1	74	42	-38	
04	63	5.4	1.9	9	5.0	61	34	36	<.1	111	82	-6	
05	64	4.3	1.5	8	3.0	49	35	30	<.1	101	71	-15	
06	65	5.1	.5	16	5.0	21	36	-2	<.1	65	33	-45	
07	66	3.5	.2	6	2.0	17	37	-10	<.1	57	25	-51	
08	67	1.4	.2	2	.5	12	38	-2	<.1	45	13	-61	
09	68	96.	2.1	5	<.1	63	39	77	.3	113	84	-4	
10	W15275	4.0	.6	17	3.0	73	40	-1	<.1	48	15	-59	
11	76	2.3	.4	9	3.0	18	41	-4	<.1	60	27	-49	
12	77	4.0	.6	25	6.0	<10	42	-6	<.1	<39	7	-65	
13	78	6.1	.9	16	5.0	20	43	11	<.1	63	31	-46	
14	79	1.9	.6	5	.5	11	44	10	<.1	42	10	-63	
15	80	1.9	.5	5	.9	12	45	6	<.1	45	13	-61	
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-

Determination- Na, K, Ca, Mg, SiO₂, Li → A.A

REMARKS:

B₁ (SO₄) Cl → TO BE REPORTED AT A LATER DATE

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

- Copies to:
1. DAVID GRAGG At GEOTHERMAL
 2. H.J OLSON At "
 3. GEOTHERMAL OFFICE At "
 4. E.J. ROWE At DENVER LAB

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 11/30/81

REQ. NO. 12446 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY DAVID GRAGG

	SAMPLE	PPM B	PPM SO ₄	PPM Cl	PPM F	UMHOS/CM COND.		SAMPLE					
01	W15038	<.2	<10	1.2	.16	90	31						
02	39	<.2	<10	1.6	.12	31	32						
03	W15262	<.2	<10	30.	.18	490	33						
04	63	<.2	<10	3.2	.11	120	34						
05	64	<.2	<10	2.4	.14	100	35						
06	65	<.2	<10	1.4	.11	160	36						
07	66	<.2	<10	1.4	.12	67	37						
08	67	<.2	<10	2.4	.10	22	38						
09	68	.6	36.	120.	1.5	560	39						
10	W15275	<.2	<10	2.8	.12	10	40						
11	76	<.2	<10	2.4	.10	87	41						
12	77	<.2	<10	2.0	.12	210	42						
13	78	<.2	<10	2.0	.12	150	43						
14	79	<.2	<10	1.8	<.1	41	44						
15	80	<.2	<10	1.8	<.1	49	45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-

Determination- B → COLORIMETRIC - CARMINIC ACID

SO₄ → TURBIDIMETRIC

REMARKS:

Cl → MERCURIMETRIC TITRATION

F → SPECIFIC ION ELECTRODE

COND → WHEATSTONE BRIDGE

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

1. DAVID GRAGG At GEOHERMAL
2. DEAN PILKINGTON At "
3. H.J OLSON At "
4. GEOHERMAL OFFICE At "
5. E.J ROWE At CEDAR

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 3/1/82

REQ. NO. 12446 JOB NO. _____

ANALYST T.C. & P.K.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY DAVID GRAGG

	SAMPLE	PPb Mo	PPb Cu				SAMPLE							
01	W15038	<2	<2				31							
02	039	2	<2				32							
03	262	6	<2				33							
04	263	<2	<2				34							
05	264	<2	<2				35							
06	265	<2	<2				36							
07	266	2	<2				37							
08	267	<2	<2				38							
09	268	<2	<2				39							
10	W15275	<2	<2				40							
11	276	<2	<2				41							
12	277	2	<2				42							
13	278	2	<2				43							
14	279	2	<2				44							
15	280	<2	<2				45							
16							46							
17							47							
18							48							
19							49							
20							50							
21							51							
22							52							
23							53							
24							54							
25							55							
26							56							
27							57							
28							58							
29							59							
30							60							

METHODS: Digestion- Sample Weight-
Determination-COLORIMETRIC

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. D. PILKINGTON At _____
2. H.J. OLSON At _____
3. GEOTHERMAL OFFICE At _____
4. DAVID GRAGG
5. ELSIE ROWE

LAB Amax-Denver

ANALYTICAL REPORT

DATE 1-11-82

REQ. NO. 12446 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal Waters

REQUESTED BY David Gregg

	SAMPLE			ppb Mn	mmho/cm Cond.	SAMPLE							
01	W15038			<10	90	31							
02	039			<10	31	32							
03	W15062			130	490	33							
04	263			<10	120	34							
05	264			<10	100	35							
06	265			<10	160	36							
07	266			22	67	37							
08	267			<10	22	38							
09	268			<10	560	39							
10	W15275			31	10	40							
11	276			<10	87	41							
12	277			10	210	42							
13	278			22	150	43							
14	279			18	41	44							
15	280			<10	49	45							
16						46							
17						47							
18						48							
19						49							
20						50							
21						51							
22						52							
23						53							
24						54							
25						55							
26						56							
27						57							
28						58							
29						59							
30						60							

METHODS: Digestion-

Sample Weight-

Determination-Mn by AA; Conductivity done with Conductivity Bridge.

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At
2. Harry Olson At
3. Geothermal Office At
4. E. J. Rowe

LAB Amax - Denver

ANALYTICAL REPORT

DATE 10-15-81

REQ. NO. 12447 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES W

REQUESTED BY Auramenko

	SAMPLE	Na ^{ppm}	K ^{ppm}	Ca ^{ppm}	Mg ^{ppm}	SiO ₂ ^{ppm}		SAMPLE Na-K-Ca	Qtz	Chal	AmSi		
01	w15070	5.4	2.5	11	7	50	31	39	102	72	-14		
02	071	2.5	1.5	5	2	35	32	33	86	55	-28		
03	072	7.3	2.5	11	9	59	33	42	110	80	-7		
04	073	2.2	.5	3	1	23	34	15	69	37	-42		
05	074	4.2	1.2	47	3	18	35	-1	60	27	-49		
06	075	300.	5.6	80	18	100	36	62	137	110	17		
07	w15267	1.2	.3	2	4	11	37	5	42	10	-63		
08	w15271	8.7	5.9	23	17	61	38	54	111	82	-6		
09	272	4.7	2.7	8	5	49	39	46	101	71	-15		
10	273	7.2	2.7	13	9	49	40	41	101	71	-15		
11	274	3.7	1.6	9	4	45	41	29	97	67	-18		
12	w15281	6.8	4.3	14	8	60	42	52	111	81	-7		
13	282	16.	4.6	23	16	67	43	52	116	87	-2		
14	283	8.6	5.5	13	9	50	44	62	102	72	-14		
15	284	11.	4.7	13	9	51	45	60	103	73	-13		
16	285	6.7	3.7	22	12	54	46	41	105	76	-11		
17	286	4.7	2.8	18	8	47	47	33	99	69	-16		
18	287	6.8	3.2	11	8	56	48	48	107	78	-9		
19	288	6.2	2.3	12	9	46	49	37	98	68	-17		
20	289	13.	8.2	27	12	53	50	64	105	75	-12		
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-

Sample Weight-

Determination-

REMARKS: All elements run by A.O.A. The rest of The determinations will be done at a later date.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Walter Auramenko At
2. Dean Pilkington At
3. Harry Olsen At
4. E. J. Rowe
5. Geothermal Office

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/14/82

REQ. NO. 12447 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATERS

REQUESTED BY WALTER AURAMENKO

	SAMPLE	ppm Li				SAMPLE				
01	W15070	<.1				31				
02	71	<.1				32				
03	72	<.1				33				
04	73	<.1				34				
05	74	<.1				35				
06	75	0.6				36				
07	W15269	<.1				37				
08	271	<.1				38				
09	272	<.1				39				
10	273	<.1				40				
11	274	<.1				41				
12	W15281	<.1				42				
13	282	<.1				43				
14	283	<.1				44				
15	284	<.1				45				
16	285	<.1				46				
17	286	<.1				47				
18	287	<.1				48				
19	288	<.1				49				
20	289	<.1				50				
21						51				
22						52				
23						53				
24						54				
25						55				
26						56				
27						57				
28						58				
29						59				
30						60				

METHODS: Digestion- Sample Weight-

Determination- Li → A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

1. D. Gragg At GEOTHERMAL
2. H. J. OLSON At "
3. DEAN PILKINGTON At "
4. GEOTHERMAL OFFICE At "
5. E. J. ROWE At CEDAR

LAB Amex - Denver

ANALYTICAL REPORT

DATE 3-2-82

REQ. NO. 12447 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal

REQUESTED BY Walter Auramenko

	SAMPLE	Cu ppb	Mo ppb			SAMPLE				
01	W15070	<2	<2			31				
02	071	<2	<2			32				
03	072	<2	2			33				
04	073	<2	<2			34				
05	074	<2	2			35				
06	075	<2	<2			36				
07	W15269	<2	<2			37				
08	W15271	<2	<2			38				
09	272	<2	<2			39				
10	273	<2	<2			40				
11	274	<2	2			41				
12	W15281	<2	<2			42				
13	282	<2	<2			43				
14	283	<2	<2			44				
15	284	<2	<2			45				
16	285	<2	<2			46				
17	286	<2	2			47				
18	287	<2	<2			48				
19	288	<2	<2			49				
20	289	<2	<2			50				
21						51				
22						52				
23						53				
24						54				
25						55				
26						56				
27						57				
28						58				
29						59				
30						60				

METHODS: Digestion- Sample Weight-

Determination- Cu + Mo - Colormetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
1. Dean Pilkington At Geothermal
 2. Geothermal Office At "
 3. H. J. Olson At "
 4. E. J. Olson At W. Cedar

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 10/9/81

REQ. NO. 12448 JOB NO. _____

ANALYST T.C.

PROJECT 686 GEOTHERMAL

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY BILL HUNTSMAN

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE Na-K-Ca	Qtz.	Chal.	Amsi.		
01	W14738	6.1	2.2	62	5	23	31	10	69	37	-42		
02	39	1.8	0.3	4	<.5	12	32	-1	45	13	-61		
03	40	6.2	1.3	27	4	20	33	11	63	31	-46		
04	41	4.3	1.0	9	2	19	34	19	62	29	-48		
05	42	5.1	1.2	10	2	28	35	23	77	45	-35		
06	43	5.4	2.4	5	1	18	36	52	60	27	-49		
07	44	4.4	0.9	18	1	27	37	7	75	44	-36		
08	W15012	28	1.3	28	9	33	38	22	83	52	-30		
09	13	3.7	1.4	29	4	16	39	8	55	23	-53		
10	14	3.6	1.2	46	5	16	40	-1	55	23	-53		
11	15	10	2.1	20	5	29	41	30	78	47	-34		
12	16	30	6.3	53	14	31	42	51	81	49	-32		
13	17	1.8	0.7	6	1	12	43	11	45	13	-61		
14	18	5.2	2.6	85	38	35	44	8	86	55	-28		
15	19	3.1	2.7	72	30	39	45	8	91	60	-24		
16	20	3.7	1.2	11	1	19	46	19	62	29	-48		
17	21	9.4	5.3	240	18	16	47	13	55	23	-53		
18	22	15	2.3	24	4	39	48	33	91	60	-24		
19	23	6.2	1.8	15	2	26	49	27	74	42	-38		
20	W15024	17	19	23	4	53	50	98	105	75	-12		
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-

Sample Weight-

Determination-AA.

REMARKS: THE REMAINDER OF THE REQUESTED ANALYSES WILL BE REPORTED OUT AT A LATER DATE.

NOTE: Mail Original to AMAX Exploration, Inc., P. O. Box C Denver, Colorado 80226

Copies to:

- 1. ALAN SHENKER At _____
- 2. GEOTHERMAL OFFICE At _____
- 3. ELSIE ROWE At _____
- 4. HARRY J. OLSON

Amex - Denver

ANALYTICAL REPORT

DATE 12-11-81

REQ. NO. 12448 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES w

REQUESTED BY Bill Huntsman

	SAMPLE	L_i^{off}					SAMPLE					
01	1.14738	<.1					31					
02	737	<.1					32					
03	740	<.1					33					
04	741	<.1					34					
05	742	<.1					35					
06	743	<.1					36					
07	w14744	<.1					37					
08	w15012	<.1					38					
09	013	<.1					39					
10	014	<.1					40					
11	015	<.1					41					
12	016	<.1					42					
13	017	<.1					43					
14	w15018	<.1					44					
15	019	<.1					45					
16	020	<.1					46					
	021	<.1					47					
18	022	<.1					48					
19	023	<.1					49					
20	w15024	<.1					50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion-

Sample Weight-

Determination- A.A

REMARKS: More results will follow.

NOTE: Mail Original to
AX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Bill Huntsman At
- 2. Harry Olson At
- 3. Geothermal Office At
- 4. E. J. Rowe

LAB AMAX-Denver

ANALYTICAL REPORT

DATE 1-11-82

REQ. NO. 12448 JOB NO. _____

ANALYST P.P

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY B. Huntsman

	SAMPLE	ppb Cu	ppb Mo				SAMPLE					
01	w15012	<2	<2				31					
02	13	<2	3				32					
03	14	<2	5				33					
04	15	<2	<2				34					
05	16	<2	6				35					
06	17	<2	4				36					
07	18	<2	2				37					
08	19	<2	<2				38					
09	20	<2	<2				39					
10	21	<2	3				40					
11	22	<2	15				41					
12	23	<2	2				42					
13	24	<2	8				43					
14	w14738	<2	8				44					
15	37	<2	<2				45					
16	40	<2	<2				46					
17	41	<2	<2				47					
18	42	<2	<2				48					
19	43	<2	3				49					
20	44	<2	<2				50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
Determination- Colorimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

✓ J. H. J. Olson	At	Geothermal
2. D. Pilkington	At	"
3. Geothermal Office	At	"
4. A. Shenker	@	"
5. E. J. Rowe	@	DENVER OFFICE

DEN 121974

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 10/8/81

REQ. NO. 12449 JOB NO. _____

ANALYST T.C.

PROJECT GEOTHERMAL 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY BILL HUNTSMAN

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE Na-K-Ca	Qtz	Chal.	AmSi		
01	W14726	4.7	2.4	20	5	26	31	27	74	42	-38		
02	727	11	3.9	61	21	27	32	28	75	44	-36		
03	728	2.5	1.9	140	11	23	33	-9	69	37	-42		
04	729	1.7	1.1	120	7	20	34	-19	63	31	-46		
05	730	10	.8	43	14	16	35	-2	55	23	-53		
06	731	5.4	1.8	20	5	20	36	22	63	31	-46		
07	732	8.7	2.6	26	14	35	37	30	86	55	-28		
08	733	8.2	4.8	17	9	31	38	53	81	49	-32		
09	734	5.2	1.8	13	6	23	39	28	69	37	-42		
10	W14735	4.9	4.1	25	8	27	40	37	75	44	-36		
11	736	8.7	3.3	68	78	76	41	21	122	94	4		
12	737	8.5	4.4	10	4	40	42	61	92	61	-23		
13	W15040	10	2.2	62	68	17	43	14	57	25	-51		
14	041	6.1	1.3	19	3	24	44	16	70	39	-40		
15	042	9.7	2.1	63	22	21	45	13	65	33	-45		
16	043	9.7	1700	140	23,000	10	46	26 1476	39	7	-65		
17	044	9.4	4.2	21	71	27	47	47	75	44	-36		
18	045	4.9	1.5	18	7	25	48	19	72	40	-39		
19	046	8.8	4.0	16	5	39	49	50	91	60	-24		
20	W15011	11	2.6	46	9	19	50	23	62	29	-48		
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
 Determination-AA.

REMARKS: THE REMAINDER OF THE REQUESTED ANALYSES WILL BE REPORTED OUT AT A LATER DATE.

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

- Copies to:
1. ALAN SHENKER At _____
 2. HARRY OLSON At _____
 3. GEOTHERMAL OFFICE At _____
 4. ELSIE ROWE

B AMAX-DENVER

ANALYTICAL REPORT

DATE 12-18-81
ANALYST P.K., T.C.
TYPE SAMPLES GEOTHERMAL WATER

REQ. NO. 12449 JOB NO.
PROJECT 686
REQUESTED BY BILL HUNTSMAN

	SAMPLE	PPM B	PPM SO4	PPM Cl	PPM F	µmohs/cm EC*		SAMPLE	PPM Mn				
01	W14726	.3	10	2.0	1.3	180	31		<10				
02	27	<.2	29	4.2	.5	530	32		<10				
03	28	<.2	220	2.6	.1	650	33		<10				
04	29	<.2	147	2.2	.1	550	34		10				
05	30	<.2	60	3.8	.2	440	35		<10				
06	31	<.2	<10	2.0	.3	160	36		<10				
07	32	<.2	<10	2.8	.4	260	37		80				
08	33	<.2	<10	4.2	.2	210	38		<10				
09	34	<.2	<10	2.4	.3	150	39		<10				
10	W14735	<.2	<10	2.6	.8	230	40		40				
11	36	.2	48	3.0	.2	780	41		160				
12	37	.2	<10	4.0	.6	150	42		<10				
13	W15011	.3	42	4.8	.5	410	43		<10				
14	040	.2	170	2.4	.4	830	44		<10				
15	41	<.2	<10	2.2	.2	210	45		<10				
16	42	.3	36	4.6	.2	380	46		<10				
17	43	3.1	130,000	4900.	<.1	64,000	47		30				
18	44	.7	1600	4.0	.3	220	48		<10				
19	45	<.2	<10	1.8	.2	170	49		<10				
20	W15046	.2	<10	3.2	.5	180	50		<10				
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-

Sample Weight-

Determination- B & SO4 BY SPECTROPHOTOMETER

Cl & F BY TITRATION

EC BY CONDUCTIVITY BRIDGE, Mn IS BY AA.

REMARKS:

*EC MEANS ELECTRICAL CONDUCTANCE,
EXPRESSED IN µMHOS/CM

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. BILL HUNTSMAN At
- 2. HARRY OLSON At
- 3. GEOTHERMAL OFFICE At
- 4. E. J. ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/11/82

REQ. NO. 12449 JOB NO. _____

ANALYST T.C.

PROJECT 686 GEOTHERMAL

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY BILL HUNTSMAN

	SAMPLE	PPb Mn					SAMPLE					
01	W14726	<10					31					
02	27	<10					32					
03	28	<10					33					
04	29	10					34					
05	30	<10					35					
06	31	<10					36					
07	32	80					37					
08	33	<10					38					
09	34	<10					39					
10	W14735	40					40					
11	36	160					41					
12	37	<10					42					
13	W15011	<10					43					
14	040	<10					44					
15	041	<10					45					
16	042	<10					46					
17	043	30					47					
18	044	<10					48					
19	045	<10					49					
20	W15046	<10					50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
Determination-AA.

REMARKS: THESE RESULTS WERE PREVIOUSLY REPORTED OUT AS P.P.M.
THEY SHOULD HAVE BEEN REPORTED OUT AS P.P.b. AS THEY
ARE ABOVE.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. ALAN SHENKER At _____
 - 2. H.J. OLSON At _____
 - 3. GEOTHERMAL OFFICE At _____
 - 4. BILL HUNTSMAN
 - 5. E.J. ROWE

AMEX. DENVER

ANALYTICAL REPORT

DATE 1-4-82

REQ. NO. 12449 JOB NO.

ANALYST P.P

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY Bill Huntsman

	SAMPLE	ppb Cu	ppb Mo					SAMPLE				
01	W-14726	<2	<2					31				
02	27	<2	<2					32				
03	28	<2	7					33				
04	29	6	9					34				
05	30	2	9					35				
06	31	<2	5					36				
07	32	<2	7					37				
08	33	2	5					38				
09	34	<2	2					39				
10	35	2	6					40				
11	36	<2	5					41				
12	37	2	<2					42				
13	W-15040	<2	11					43				
14	41	2	3					44				
15	42	<2	<2					45				
16	43	<2	375					46				
17	44	<2	3					47				
18	45	3	2					48				
19	46	<2	<2					49				
20	W-15011	<2	6					50				
21								51				
22								52				
23								53				
24								54				
25								55				
26								56				
27								57				
28								58				
29								59				
30								60				

METHODS: Digestion-

Sample Weight-

Determination-

REMARKS:

OTF: Mail Original to
M. Exploration, Inc.,
P.O. Box C
Denver, Colorado 80226

Copies to:

- 1. Bill Huntsman At _____
 - 2. Geothermal Office At _____
 - 3. A. Shenker At Geothermal _____
 - 4. H. Olson @ " _____
 - 5. E.J. Rowe @ Denver Office _____
- DEN 12107A

3 Amex - Denver

ANALYTICAL REPORT

DATE 12-11-81

REQ. NO. 12449 JOB NO.

ANALYST PK

PROJECT 1086

TYPE SAMPLES W

REQUESTED BY Bill Huntsman

	SAMPLE	Li ppm					SAMPLE					
01	W14726	<.1					31					
02	727	<.1					32					
03	728	<.1					33					
04	729	<.1					34					
05	730	<.1					35					
06	731	<.1					36					
07	732	<.1					37					
08	W14733	<.1					38					
09	734	<.1					39					
10	735	<.1					40					
11	736	<.1					41					
12	737	<.1					42					
13	W15011	<.1					43					
14	040	.1					44					
15	041	<.1					45					
16	042	<.1					46					
	043	1.1					47					
18	044	<.1					48					
19	045	<.1					49					
20	046	<.1					50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion-

Sample Weight-

Determination- A.A.

REMARKS: Other answers will follow.

NOTE: Mail Original to
A. Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

1. Bill Huntsman At Geothermal
2. Harry Olson At Geothermal
3. Geothermal Office At
4. E.J. Rowe

LAB Amax - Denver

ANALYTICAL REPORT

DATE 11-16-81

REQ. NO. 12481 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES w

REQUESTED BY Walter Avramenko

	SAMPLE	Na ^{ppm}	K ^{ppm}	Ca ^{ppm}	Mg ^{ppm}	SiO ₂ ^{ppm}		SAMPLE	Na-K-Ca	Qtz.	Chal.	Am.Si.
01	W15128	540	43	510	180	110	31		95	143	116	22
02	129	7.4	1.5	12	.5	37	32		28	88	57	-26
03	130	5.6	1.2	9	.5	10	33		25	39	7	-65
04	131	4.6	.9	6	.3	32	34		23	82	51	-31
05	132	1.3	2.9	9	.5	57	35		35	108	79	-9
06	133	1.3	.4	.8	<.5	11	36		26	42	10	-63
07	134	7.4	.6	23	7	16	37		-1	55	23	-53
08	135	3.3	.5	5	.5	34	38		10	85	54	-29
09	136	3.3	.5	4	1	44	39		13	96	66	-19
10	137	6.8	1.4	12	6	31	40		26	81	49	-32
11	138	1.2	.3	.6	<.5	<10	41		23	439	27	-65
12	139	1.6	.2	2	<.5	11	42		-1	42	10	-63
13							43					
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion-

Sample Weight-

Determination-

REMARKS: Elements were all run by AA. Other results will follow.

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. Walter Avramenko At _____
 2. Dean R. Kingdon At _____
 3. Harry Olson At _____
 4. Geothermal Office
 5. EJ Rowe

LAB AMAX-Denver

ANALYTICAL REPORT

DATE 1-14-82

REQ. NO. 12481 JOB NO. _____

ANALYST P.P

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY Walter Avramenko

	SAMPLE	ppb Cu	ppb Mo					SAMPLE					
01	W 15128	<2	<2					31					
02	29	<2	<2					32					
03	30	3	<2					33					
04	31	<2	3					34					
05	32	<2	2					35					
06	33	7	<2					36					
07	34	<2	<2					37					
08	35	<2	<2					38					
09	36	<2	2					39					
10	37	<2	3					40					
11	38	<2	<2					41					
12	39	<2	<2					42					
13								43					
14								44					
15								45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion- Sample Weight-
Determination-Colorimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. D. Gragg At Geothermal
2. Geothermal Office At "
3. Dean Pilkington At "
4. E.J. ROWE @ Denver Office

LAB AMAX - DENVER

ANALYTICAL REPORT

DATE 1/13/82

REQ. NO. 12481 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM Li				SAMPLE					
01	W15128	2.0				31					
02	129	<.1				32					
03	130	<.1				33					
04	131	<.1				34					
05	132	<.1				35					
06	133	<.1				36					
07	134	<.1				37					
08	135	<.1				38					
09	136	<.1				39					
10	137	<.1				40					
11	138	<.1				41					
12	139	<.1				42					
13						43					
14						44					
15						45					
16						46					
17						47					
18						48					
19						49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion- Sample Weight-
Determination- Li → A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
- 1. D. Gragg At GEOHERMAL
 - 2. H.J OLSON At "
 - 3. DEAN PILKINGTON At "
 - 4. GEOHERMAL OFFICE At "
 - 5. E. J ROWE At CEDAR

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 11/18/81

REQ. NO. 12482 JOB NO. _____

ANALYST T.C.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY WALTER ARRAMENKO

	SAMPLE	PPM	PPM	PPM	PPM	PPM		SAMPLE	PPM	Na-K-Ca	Qtz.	Chcl.	Am.S.
		Na	K	Ca	Mg	SiO ₂			Li				
01	W15146	4.3	.3	8	2	23	31		<.1	-4	69	(37)	-42
02	147	6.0	1.6	11	4	36	32		<.1	29	87	(56)	-27
03	148	51	2.3	24	27	26	33		<.1	43	74	(42)	-38
04	149	140	.8	12	<.5	45	34		<.1	37	97	(67)	-18
05	150	150	5.1	4	<.5	55	35		.1	139	(106)	77	-10
06	151	2.0	.5	9	1	11	36		<.1	-1	42	(10)	-63
07	152	49	.8	2	<.5	45	37		<.1	60	97	(67)	-18
08	153	1.0	.2	1	1	4	38		<.1	5	(12)	-21	-87
09	154	3.4	.4	5	1	14	39		<.1	6	51	(18)	-56
10	W15155	4.4	1.0	12	1	8	40		<.1	15	32	(-1)	-71
11	156	1.4	1.6	11	2	8	41		<.1	18	32	(-1)	-71
12	157	2.0	.8	8	1	8	42		<.1	10	32	(-1)	-71
13	158	2.7	1.4	13	2	10	43		<.1	17	39	(7)	-65
14	159	180	12	4	<.5	99	44		.4	174	(137)	110	16
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
 Determination- A.A.

REMARKS: THE REMAINING REQUESTED RESULTS WILL BE REPORTED
 OUT AT A LATER DATE

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. DEAN PILKINGTON At _____
 2. W. ARRAMENKO At _____
 3. H.J. OLSON At _____
 4. GEOTHERMAL OFFICE
 5. E.J. ROWE

LAB Amex - Denver

ANALYTICAL REPORT

DATE 1-14-82

REQ. NO. 12482 JOB NO. _____

ANALYST P.P

PROJECT 686

TYPE SAMPLES Geothermal Water

REQUESTED BY Walter Avramenko

	SAMPLE	ppb Cu	ppb Mo					SAMPLE					
01	W15146	<2	<2					31					
02	47	<2	<2					32					
03	48	<2	<2					33					
04	49	6	5					34					
05	50	<2	60					35					
06	51	<2	2					36					
07	52	<2	30					37					
08	53	<2	<2					38					
09	54	<2	<2					39					
10	55	<2	25					40					
11	56	6	300					41					
12	57	<2	<2					42					
13	58	<2	<2					43					
14	59	<2	5					44					
15								45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion- Sample Weight-
Determination-Colorimetric

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. D. Gregg At Geothermal
2. Geothermal Office At "
3. D. Pilkington At "
4. E.J. Rowe @ Denver Office

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/11/82

REQ. NO. 12482 JOB NO. _____

ANALYST T.C.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY WALTER AURAMENKO

	SAMPLE	PPM Cl	PPM F	PPM SO ₄			SAMPLE					
01	W15146	3.2	<.1	<10			31					
02	147	3.0	.1	<10			32					
03	148	4.8	.2	29			33					
04	149	200	.9	<10			34					
05	150	150	.8	45			35					
06	151	2.8	.1	<10			36					
07	152	25	.8	18			37					
08	153	2.8	<.1	<10			38					
09	154	4.0	<.1	<10			39					
10	W15155	3.6	.2	<10			40					
11	156	2.6	<.1	15			41					
12	157	2.6	<.1	10			42					
13	158	2.2	<.1	11			43					
14	159	110	3.1	19			44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion-
Determination-

Sample Weight-

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. WALTER AURAMENKO At
2. DEAN PILKINGTON At
3. H.J. OLSON At
4. GEOTHERMAL OFFICE
5. E.J. ROWE

LAB Amax - Denver

ANALYTICAL REPORT

DATE 1-8-82

REQ. NO. 12482 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal Waters

REQUESTED BY Auramenko

	SAMPLE			ppb. Mn	mmhos/cm Cond		SAMPLE						
01	w15146			<10	75		31						
02	147			260	120		32						
03	148			14	510		33						
04	149			<10	680		34						
05	150			<10	680		35						
06	151			<10	80		36						
07	152			<10	210		37						
08	153			<10	17		38						
09	154			<10	58		39						
10	155			<10	100		40						
11	156			<10	95		41						
12	157			10	67		42						
13	158			16	94		43						
14	159			<10	730		44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- Sample Weight-
Determination- Mn by AA; Conductivity by Conductivity Bridge.

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At Geoth.
2. Harry Olson At "
3. Geothermal Office At
4. E. J. Rowe

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 11/18/81

REQ. NO. 12483 JOB NO. _____

ANALYST T.C.

PROJECT 686

TYPE SAMPLES GEOHERMAL WATER

REQUESTED BY WALTER ARRAMENKO

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE	PPM Li	Na-K-Ca	Qtz.	Chal.	Am.Si.
01	W15160	1.4	3.7	16	5	11	31		<.1	32	42	10	-63
02	161	2.1	.6	5	6	15	32		<.1	11	53	21	-55
03	162	5.3	1.7	8	4	19	33		<.1	35	62	29	-48
04	300	50	1.4	21	21	20	34		<.1	33	63	31	-46
05	301	21	1.8	31	32	23	35		<.1	26	69	37	-42
06	302	3.3	.7	19	3	12	36		<.1	7	45	13	-61
07	303	1700	120	260	60	81	37		4.3	180	126	98	7
08	304	.7	.2	4	1	10	38		<.1	15	39	7	-65
09	305	190	9.3	39	21	56	39		.4	89	107	78	-9
10	W15306	1.2	1.2	7	2	17	40		<.1	17	57	25	-51
11	307	700	80	190	53	270	41		3.3	193	201	184	77
12	308	680	79	190	53	270	42		3.2	194	201	184	77
13	309	2.3	1.7	18	6	30	43		<.1	16	79	48	-33
14	310	1.8	.8	9	2	27	44		<.1	8	75	44	-36
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-

Sample Weight-

Determination-AA.

REMARKS: THE REMAINING REQUESTED RESULTS WILL BE REPORTED OUT AT A LATER DATE

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. DEAN PILKINGTON At _____
- 2. W. ARRAMENKO At _____
- 3. H. J. OLSON At _____
- 4. GEOHERMAL OFFICE
- 5. E. J. ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/11/82

REQ. NO. 12483 JOB NO. _____

ANALYST T.C.

PROJECT 686

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM Cl	PPM F	PPM SO ₄			SAMPLE					
01	W15160	1.2	.1	17			31					
02	161	3.2	<.1	<10			32					
03	162	3.4	<.1	<10			33					
04	300	2.8	.2	<10			34					
05	301	2.6	.2	47			35					
06	302	1.8	.3	11			36					
07	303	2200	1.1	110			37					
08	304	1.6	<.1	12			38					
09	305	130	.2	100			39					
10	W15 306	1.2	<.1	<10			40					
11	307	720	1.0	<10			41					
12	308	710	1.2	<10			42					
13	309	<1.0	<.1	<10			43					
14	310	1.8	<.1	<10			44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
 Determination- F IS BY SPECIFIC ION ELECTRODE
 Cl IS BY MERCURIMETRIC TITRATION
 SO₄ IS TURBIDIMETRIC

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. DEAN PILKINGTON At
 2. H.J. OLSON At
 3. GEOTHERMAL OFFICE At
 4. WALTER AVRAMENKO
 5. E.J. ROWE

LAB Amax - Denver

ANALYTICAL REPORT

DATE 3-2-82

REQ. NO. 12483 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES w

REQUESTED BY Avramenko

	SAMPLE	Cu ppb	Mo ppb			SAMPLE					
01	W15160	<2	2			31					
02	161	<2	<2			32					
03	162	<2	<2			33					
04	W15300	<2	3			34					
05	301	<2	<2			35					
06	302	100	20			36					
07	303	<2	<2			37					
08	304	<2	<2			38					
09	305	<2	<2			39					
10	306	<2	2			40					
11	W15307	<2	<2			41					
12	308	<2	<2			42					
13	309	<2	<2			43					
14	W15316	<2	<2			44					
15						45					
16						46					
17						47					
18						48					
19						49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion-

Sample Weight-

Determination- Mo + Cu done Colormetrically except for W15302, which
was done by AA for Cu.

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At Geothermal
- 2. H.J. Olson At "
- 3. Geothermal Office At "
- 4. E.I. Rowe At W. Cedar

LAB Amax - Denver

ANALYTICAL REPORT

DATE 1-8-82

REQ. NO. 12483 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES Geothermal

REQUESTED BY Auramenko

	SAMPLE			Mn ^{ppb}	mhos/cm Cond.		SAMPLE				
01	W15160			< 10	140	31					
02	161			34	76	32					
03	162			21	100	33					
04	W15300			160	420	34					
05	301			16	460	35					
06	302			< 10	160	36					
07	303			560	7900	37					
08	304			1,000	47	38					
09	W15305			130	1000	39					
10	306			760	62	40					
11	307			310	3700	41					
12	308			310	3700	42					
13	309			1,300	150	43					
14	W15310			< 10	74	44					
15						45					
16						46					
17						47					
18						48					
19						49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion-

Sample Weight-

Determination: Mn by AA; Conductivity by Conductivity Bridge.

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At
2. Harry Olson At
3. Geothermal Office At
4. E.J. Rowe

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 11/23/81
 ANALYST T.C.
 TYPE SAMPLES GEOTHERMAL WATER

REQ. NO. 12484 JOB NO. _____
 PROJECT 686
 REQUESTED BY WALTER ARRAMENKO

	SAMPLE	PPM Na	PPM K	PPM Ca	PPM Mg	PPM SiO ₂		SAMPLE	Na-K-Ca	Qtz.	Chal.	Am.Si.
01	W15311	5.1	.5	12	10	12	31		1	45	13	-61
02	312	1.3	.5	6	1	13	32		1	48	15	-59
03	313	18	1.7	8	21	20	33		45	63	31	-46
04	314	4.7	3.1	11	16	23	34		44	69	37	-42
05	315	4.1	1.0	25	7	19	35		4	62	29	-48
06	316	17	3.1	29	18	35	36		38	86	55	-28
07	317	6.4	1.3	11	3	17	37		25	57	25	-51
08	318	73	5.6	20	7	20	38		76	63	31	-46
09	319	7.5	2.6	14	5	29	39		39	78	47	-34
10	W15320	7.4	1.6	14	5	27	40		27	75	44	-36
11	321	5.5	1.8	25	7	27	41		19	75	44	-36
12	322	1.4	.1	2	1	7	42		-15	28	-5	-74
13	323	1.6	.1	3	2	12	43		-18	45	13	-61
14	324	10	2.2	15	6	32	44		36	82	51	-31
15	325	5.9	1.1	10	3	28	45		22	77	45	-35
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- Sample Weight-
 Determination-AA.

REMARKS: THE REMAINDER OF THE REQUESTED RESULTS WILL BE REPORTED AT A LATER DATE.

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

- Copies to:
- 1. DEAN PILKINGTON At
 - 2. WALTER ARRAMENKO At
 - 3. GEOTHERMAL OFFICE At
 - 4. HARRY OLSON
 - 5. ELSIE ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 3/1/82

REQ. NO. 12487 JOB NO. _____

ANALYST T.C. & P.K.

PROJECT 696

TYPE SAMPLES GEOTHERMAL WATER

REQUESTED BY W. AVRAMENKO

	SAMPLE	PPb Mo	PPb Cu					SAMPLE					
01	W15311	<2	<2					31					
02	12	<2	<2					32					
03	13	<2	<2					33					
04	14	2	<2					34					
05	15	<2	<2					35					
06	16	<2	<2					36					
07	17	<2	<2					37					
08	18	2	<2					38					
09	19	<2	<2					39					
10	W15320	2	<2					40					
11	21	<2	<2					41					
12	22	2	<2					42					
13	23	2	<2					43					
14	24	2	<2					44					
15	25	<2	<2					45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion- Sample Weight-
Determination-COLORIMETRIC

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. D. PILKINGTON At
2. W. AVRAMENKO At
3. H. J. OLSON At
4. GEOTHERMAL OFFICE
5. E. J. ROWE

LAB AMAX-DENVER

ANALYTICAL REPORT

DATE 1/14/82

REQ. NO. 12484 JOB NO. _____

ANALYST M.S

PROJECT 686

TYPE SAMPLES GEOHERMAL WATERS

REQUESTED BY WALTER AVRAMENKO

	SAMPLE	PPM L ₁				SAMPLE				
01	W15311	<.1				31				
02	312	<.1				32				
03	313	<.1				33				
04	314	<.1				34				
05	315	<.1				35				
06	316	<.1				36				
07	317	<.1				37				
08	318	0.1				38				
09	319	<.1				39				
10	320	<.1				40				
11	321	<.1				41				
12	322	<.1				42				
13	323	<.1				43				
14	324	<.1				44				
15	325	<.1				45				
16						46				
17						47				
18						48				
19						49				
20						50				
21						51				
22						52				
23						53				
24						54				
25						55				
26						56				
27						57				
28						58				
29						59				
30						60				

METHODS: Digestion- Sample Weight-

Determination- L₁ → A.A

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

- Copies to:
1. D. Gragg at GEOHERMAL
 2. H.J OLSON At "
 3. DEAN PILKINGTON At "
 4. GEOHERMAL OFFICE At "
 5. E.J ROWE At GEDAR

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73634

DATE SUBMITTED 2/08/82
DATE COMPLETED _____
WORKING PLACE NUMBER 6809
DEPT. NO. 200

JOB NUMBER _____
SUBMITTED BY F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. O'Leary
F. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION	SAMPLE IDENTIFICATION	ppb		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
		As	Sb							
1	DT-21	4	<.5							
2	1-22	5	2.							
3	1-23	5	2.							
4	1-24	2	1.							
5	1-25	6	1.							
6	1-26	10	<.5							
7	1-27	11	<.5							
8	1-28	14	<.5							
9	1-29	5	<.5							
10	1-30	12	<.5							
11	W 14164	26	5.							
12	165	15	1.							
13	W 14231	31	4.							
14	271	3	<.5							
15	272	22	<.5							
16	W 14287	500	2.							
17	288	364	<.5							
18	289	25	6.							
19	290	1	<.5							
20	291	<.5	<.5							

1121 → 1191
1114 - Ouled H.S.
aluminum 1186
1937

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

NV
any

42
10

.5
9.5

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73635

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE IDENTIFICATION	ppb		ppb		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
	As	EST.	Sb	EST.							
1 W14292	9		17								
2 293	12		7								
3 294	10		<.5								
4 295	4		<.5								
5 296	11		<.5								
6 297	54		29								
7 298	56		27								
8 W14315	65		81								
9 316	16		9.								
10 317	13		5.								
11 W14361	2		<.5								
12 362	8		<.5								
13 363	7		<.5								
14 364	1		<.5								
15 365	1		<.5								
16 366	1		<.5								
17 367	1		<.5								
18 368	2		<.5								
19 369	7		<.5								
20 370	5		<.5								

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

NV
any

42
10

.5
9.5

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73636

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

JOB NUMBER _____
SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe
SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE MATRIX/COMPOSITION
(e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

SAMPLE IDENTIFICATION	ppb		ppb		E S T.	E S T.	E S T.	E S T.	E S T.	E S T.
	As	E S T.	Sb	E S T.						
1 W14374	13		10							
2 375	10		10							
3 376	6		<.5							
4 377	1		<.5							
5 378	<1		<.5							
6 379	6		<.5							
7 380	16		<.5							
8 381	32		1							
9 382	6		<.5							
10 383	3		<.5							
11 384	<1		<.5							
12 385	1		<.5							
13 386	1		<.5							
14 387	9		<.5							
15 388	3		<.5							
16 W14500	5		<.5							
17 W14700	2		<.5							
18 W14726	1		<.5							
19 727	1		<.5							
20 728	1		<.5							

Handwritten notes in red ink:
 Tuscon 860
 864
 737 Bulb Anal.
 566
 626

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

D.R. Call

4

Feb. 12, 82

As + Sb

G.F.A.A.

.5

NV

42

.5

Am

10

9.0

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73637

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE IDENTIFICATION

ppb
As

E S T.

ppb
Sb

E S T.

E S T.

E S T.

E S T.

E S T.

SAMPLE MATRIX/COMPOSITION
(e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

1	W 14729	2		<.5								
2	730	2		<.5								
3	731	1		<.5								
4	732	3		<.5								
5	733	2		<.5								
6	734	1		<.5								
7	735	1		<.5								
8	736	3		<.5								
9	737	2		<.5								
10	738	1		<.5								
11	739	1		<.5								
12	740	1		<.5								
13	741	1		<.5								
14	742	1		<.5								
15	743	2		<.5								
16	744	1		<.5								
17	745	1		<.5								
18	746	1		<.5								
19	747	1		<.5								
20	748	1		<.5								

ANALYST'S SIGNATURE(S):	CODE	DATE	DETER.	METHOD	COMMENTS:
D.R. Call	4	Feb. 12, 82	As + Sb	G.F.A.A.	5.5
NV	42				.5
BND	68	2-12-82			4.0

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73638

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

JOB NUMBER
SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe
SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION	ppb		ppb		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
	AS	EST.	Sb	EST.							
1 W14749	2		<.5								NW 1/4 Sec 32 T22N R39E
2 750	14		<.5								
3 W14991	10		<.5								
4 992	15		14.								
5 993	33		<.5								
6 994	12		<.5								
7 995	2		3.								
8 996	2		3.								
9 997	8		<.5								
10 998	22		20.								
11 999	16		15.								
12 W15000	17		14.								
13 W15011	3		<.5								
14 012	3		<1								
15 013	2		<1								
16 014	1		<1								
17 015	1		<1								
18 016	1		<1								
19 017	2		<1								
20 018	2		<1								

864 NW 1/4 Sec 32 T22N R39E

where? 864

020

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

*Sensitivity decreased so detection limit is only 1 PPB on these samples.

DR. Call

4

2-12-82

As+Sb

G.F.A.A.

7.5

NV

42

BND

68

2-12-82

.5

2.0 HRS.

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73639

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

PPB

PPB

SAMPLE MATRIX/COMPOSITION
(e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.	EST.
	As	EST.	Sb	EST.							
1 W 15019	1		<1								
2 020	<1		<1								
3 021	8		<1								
4 022	1		<1								
5 023	1		<1								
6 024	1		<1								
7 025	2		<1								
8 026	2		<1								
9 027	1		<1								
10 028	<1		<1								
11 029	<1		<1								
12 030	<1		<1								
13 031	<1		<1								
14 032	1		<1								
15 033	2		1								
16 034	1		<1								
17 035	1		<1								
18 036	2		<1								
19 037	<1		<1								
20 038	1		1								

6
2
D

ANALYST'S SIGNATURE(S):	CODE	DATE	DETER.	METHOD	COMMENTS:
D.R. Call	4	Feb. 12, 82	As + Sb	G.F.A.A.	9.5
NV	42				1.5

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73640

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION	PPB		PPB								SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
	AS	EST.	SB	EST.							
1	W 15039	<1	<1								
2	040	2	1								
3	041	<1	<1								
4	042	<1	<1								
5	043	15	8								
6	044	3	2								
7	045	1	1								
8	046	1	<1								
9	047	12	<1								
10	048	1	2								
11	049	9	2								
12	050	7	2								
13	051	2	3								
14	052	<1	<1								
15	053	<1	1								
16	W 15070	<1	1								
17	071	<1	1								
18	072	<1	<1								
19	073	<1	1								
20	074	1	1								

620

620

ANALYST'S SIGNATURE(S):	CODE	DATE	DETER.	METHOD	COMMENTS:
D.R. Call	4	Feb. 12, 82			9.5
NV	42				5

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 MCINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73641

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT _____
COPIES TO: Jean Pilkington
D. J. Olson
E. J. Dowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
	As	EST.	Sb	EST.							
1	W15075	8	<1								
2	076	211	4								
3	077	<1	<1								
4	078	<1	1								
5	079	2	1								
6	080	<1	<1								
7	081	<1	<1								
8	082	<1	<1								
9	083	<1	<1								
10	084	1	<1								
11	085	1	<1								
12	086	1	<1								
13	087	1	<1								
14	088	<1	<1								
15	089	1	<1								
16	090	<1	<1								
17	091	<1	<1								
18	092	<1	<1								
19	093	<1	<1								
20	094	1	<1								

6809

6809

ANALYST'S SIGNATURE(S):	CODE	DATE	DETER.	METHOD	COMMENTS:
<u>DS</u>	<u>2</u>				<u>2 hrs</u>
<u>NV</u>	<u>42</u>				<u>5</u>
<u>ORCall</u>	<u>4</u>		<u>As, Sb</u>	<u>G.F.A.A.</u>	<u>7.5</u>

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73642

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

JOB NUMBER
SUBMITTED BY: F. Pitardi EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION	SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
		A3	EST.	Sb	EST.							
1	W15095	1		<1								
2	096	2		<1								
3	097	1		<1								
4	098	1		<1								
5	099	5		<1								
6	100	2		<1								
7	101	1		<1								
8	102	2		<1								
9	103	1		<1								
10	104	1		<1								
11	105	<1		<1								
12	106	<1		<1								
13	107	1		<1								
14	108	20		<1								
15	109	23		<1								
16	110	2		<1								
17	111	2		<1								
18	112	<1		<1								
19	113	<1		<1								
20	114	4		<1								

6809

ANALYST'S SIGNATURE(S):	CODE	DATE	DETER.	METHOD	COMMENTS:
<u>D.R. Call</u>	<u>4</u>	<u>Feb. 19, 82</u>	<u>Sb, as</u>	<u>GFAA</u>	<u>2 hrs</u> <u>8.0</u>

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73643

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

JOB NUMBER
SUBMITTED BY: J. Pitard EXT. _____
COPIES TO: Dean Pickering
J. G. Osborne
E. J. Rowe
SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE MATRIX/COMPOSITION
(e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.
	As	EST.	Sb	EST.						
1 W 15115	6		1							
2 116	3		<1							
3 117	2		<1							
4 118	<1		<1							
5 119	<1		<1							
6 120	4		<1							
7 121	1		<1							
8 122	5		<1							
9 123	4		<1							
10 124	1		<1							
11 125	2		4							
12 126	1		<1							
13 127	1		<1							
14 128	72		<1							
15 129	3		<1							
16 130	2		<1							
17 131	1		<1							
18 132	4		<1							
19 133	1		<1							
20 134	1		<1							

620

620

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

DRCall

4

Feb. 19, 82

As, Sb

G.F.A.A.

10.0

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
 5950 McINTYRE STREET, GOLDEN, COLORADO 80401
 303-279-7636

ANALYTICAL REPORT

JOB NUMBER

73644

DATE SUBMITTED: 02/08/82
 DATE COMPLETED: _____
 WORKING PLACE NUMBER: 6809
 DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
 COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION	SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
		As	EST.	Sb	EST.							
1	W15135	1		<1								
2	136	2		<1								
3	137	1		<1								
4	138	<1		<1								
5	139	8		<1								
6	140	1		<1								
7	141	1		<1								
8	142	1		1								
9	143	1		<1								
10	144	1		<1								
11	145	1		1								
12	146	2		1								
13	147	2		<1								
14	148	2		<1								
15	149	<1		<1								
16	150	24		1								
17	151	1		<1								
18	152	10		<1								
19	153	<1		<1								
20	154	<1		<1								

626

626

ANALYST'S SIGNATURE(S):	CODE	DATE	DETER.	METHOD	COMMENTS:
<u>DR Call</u>	<u>4</u>	<u>Febr 19, 82</u>	<u>As, Sb</u>	<u>G.F.A.A.</u>	<u>1.5</u>
<u>Ang</u>	<u>10</u>	<u>2/17/82</u>	<u>As</u>	<u>"</u>	<u>8.5</u>

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73645

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. G. Olsark
E. J. Rowe

SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE MATRIX/COMPOSITION
(e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

SAMPLE IDENTIFICATION	PPB		PPB		E S T.	E S T.	E S T.	E S T.	E S T.	E S T.	SAMPLE MATRIX/COMPOSITION
	As	E S T.	Sb	E S T.							
1 W15155	2		<1								
2 156	6		<1								
3 157	34		<1								
4 158	65		<1								
5 159	75		7								
6 160	1		<1								
7 161	1		<1								
8 162	19		<1								
9 W15251	1		<1								
10 252	<1		<1								
11 253	1		<1								
12 254	36		<1								
13 255	1		<1								
14 256	<1		<1								
15 257	<1		<1								
16 258	1		<1								
17 259	2		<1								
18 260	1		<1								
19 261	<1		<1								
20 262	2		<1								

G.
J.
G.

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

03
Amj 2
10 2/17/82 As, Sb GFAA 2 hrs
8.0

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
 5950 McINTYRE STREET, GOLDEN, COLORADO 80401
 303-279-7636

ANALYTICAL REPORT

JOB NUMBER

73646

DATE SUBMITTED: 02/08/82
 DATE COMPLETED: _____
 WORKING PLACE NUMBER: 6809
 DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
 COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe
 SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
	As	EST.	Sb	EST.							
1 W15263	1		<1								
2 264	1		<1								
3 265	<1		<1								
4 266	<1		<1								
5 267	<1		<1								
6 268	4		<1								
7 269	<1		<1								
8 W15271	<1		<1								
9 272	1		<1								
10 273	<1		<1								
11 274	<1		<1								
12 275	<1		<1								
13 276	<1		<1								
14 277	<1		<1								
15 278	<1		<1								
16 279	1		<1								
17 280	1		1								
18 281	<1		<1								
19 282	<1		<1								
20 283	1		<1								

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

Any

10

2/18/82 As, Sb

GFAA

10.0

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 McINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73647

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

JOB NUMBER
SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe
SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE MATRIX/COMPOSITION
(e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.	SAMPLE MATRIX/COMPOSITION
	As	EST.	Sb	EST.							
1 W 15284	1		<1								
2 285	1		<1								
3 286	5		<1								
4 287	2		<1								
5 288	<1		<1								
6 289	1		<1								
7 290	1		<1								
8 291	1		<1								
9 292	1		<1								
10 293	<1		<1								
11 294	<1		1								
12 295	<1		<1								
13 296	<1		1								
14 297	<1		<1								
15 298	<1		<1								
16 299	<1		<1								
17 300	<1		<1								
18 301	<1		<1								
19 302	4		<1								
20 303	909		<1								

676

676

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

03

2

2 hrs

ay

10

2/23/82

Sb, As GF AA

8

DATE SUBMITTED: 02/08/82
 DATE COMPLETED: _____
 WORKING PLACE NUMBER: 6809
 DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
 COPIES TO: Dean Pilkington
H. J. Olson
E. J. Rowe
 SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

 ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

 SAMPLE MATRIX/COMPOSITION
 (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)

SAMPLE IDENTIFICATION	PPB		PPB		EST.	EST.	EST.	EST.	EST.	EST.
	As	EST.	Sb	EST.						
1 W 15 304	453		229							
2 305	8		< 1							
3 306	7		< 1							
4 307	1		< 1							
5 308	1		< 1							
6 309	7		< 1							
7 310	< 1		< 1							
8 311	< 1		< 1							
9 312	1		< 1							
10 313	< 1		< 1							
11 314	< 1		< 1							
12 315	2		< 1							
13 316	2		< 1							
14 317	44		< 1							
15 318	1		< 1							
16 319	1		< 1							
17 320	9		< 1							
18 321	< 1		< 1							
19 322	< 1		< 1							
20 323	< 1		< 1							

G.F.A.A.

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

AS
AMJ

2
10

2/24/82

Sb, As

G.F.A.A.

2 hrs
7.5

AMAX

EXTRACTIVE RESEARCH & DEVELOPMENT, INC.
5950 MCINTYRE STREET, GOLDEN, COLORADO 80401
303-279-7636

ANALYTICAL REPORT

73649

JOB NUMBER

DATE SUBMITTED: 02/08/82
DATE COMPLETED: _____
WORKING PLACE NUMBER: 6809
DEPT. NO.: 200

SUBMITTED BY: F. Pitard EXT. _____
COPIES TO: Dean Pilkington
Gl. J. Olson
E. J. Rowe
SAMPLE PREP. YES NO

SUBMITTER'S COMMENTS: _____

DESIRED ACCURACY: _____

ROUTINE EXPEDITE

AUTHORIZED BY: _____

PREFERRED ORDER OF DETERMINATION

SAMPLE IDENTIFICATION

1	SAMPLE IDENTIFICATION	PPB		Sb		EST.		EST.		EST.		EST.		SAMPLE MATRIX/COMPOSITION (e.g. pH, MAJOR IONS, ELEMENTS, ETC.)
		As	EST.	EST.	EST.	EST.	EST.	EST.	EST.					
1	W 15324	2		< 1										
2	325	1		< 1										
3	W 15502	17		< 1										
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

6/5
> Bully Creek 737.

ANALYST'S SIGNATURE(S):

CODE

DATE

DETER.

METHOD

COMMENTS:

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 480
December 7, 1981
REQUISITION NO. 12486
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean P. Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 8 Pulp Samples

ITEM	SAMPLE NO.	SiO2 (%)
------	------------	----------

3	G11012	.90
---	--------	-----

ITEM	SAMPLE NO.	Au (ppm)
------	------------	----------

2	G11011	220.00
4	G11013	.55
5	G11014	<.02
6	G11020	.09
7	G11021	<.02
8	G11028	.20

ITEM	SAMPLE NO.	Hg (ppm)
------	------------	----------

1	G11009	.18
5	G11014	.21
8	G11028	.21

DETERMINATIONS: SiO2 & Au - Atomic Absorption
Hg - Vapor Phase Atomic Absorption

cc's: W. Avramenko
✓ D. Gragg
L. D. Mullen
AMAX - Lakewood


Gordon H. VanSickle
Manager

LAB Amax-Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12487 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Auramenko

	SAMPLE	Cu ppm	Ag ppm					SAMPLE					
01	G11023	100	13.					31					
02	G11029	40	2.2					32					
03								33					
04								34					
05	G-30	5	.1					35					
06								36					
07								37					
08								38					
09								39					
10								40					
11								41					
12								42					
13								43					
14								44					
15								45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion-85% HClO₄-HNO₃ Sample Weight-1.05gm
Determination- AT. Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At
2. Walter Auramenko At
3. David Grago At
4. Harry Olson
5. E. J. Rowe
6. Geothermal Office

LAB Amex - Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12488 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Walter Avramenko

	SAMPLE	Mo ppm	Cu ppm	Ag ppm		SAMPLE				
01	G11001			180.		31				
02	G11002	<1	6600	1.6		32				
03	G11003	20	18,000	110.		33				
04	G11004	1	63	6.7		34				
05	G11006		3,200	2,500.		35				
06	G11007		.38	19.		36				
07	G11008	30	100,000	110.		37				
08						38				
09						39				
10	G-37	19	460	1.8		40				
11						41				
12						42				
13						43				
14						44				
15						45				
16						46				
17						47				
18						48				
19						49				
20						50				
21						51				
22						52				
23						53				
24						54				
25						55				
26						56				
27						57				
28						58				
29						59				
30						60				

METHODS: Digestion- $HClO_4 - HNO_3$

Sample Weight-1.5gm.

Determination- Mo < 15 ppm, Color; Mo ≥ 15 ppm, AA. Other elements run by AA.

REMARKS:

Samples > 1000 ppm are out of Geochen range and should be Assayed.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At _____
- 2. Walter Avramenko At _____
- 3. David Gragg At _____

- 4. Harry Olson
- 5. Geothermal Office
- 6. E. J. Rowe

DEN 121974

LAB Amax - Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12486 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Avramenko

	SAMPLE	Mo ppm	Cu ppm	Pb ppm	Ag ppm		SAMPLE				
01	G11011	2			190.		31				
02	G11013				2.4		32				
03	G11014	3	140		5.1		33				
04	G11020	14	48,000	280	860.		34				
05	G11021				1.2		35				
06	G11028		31		.4		36				
07							37				
08	G-35	8	540	69	11.2		38				
09							39				
10							40				
11							41				
12							42				
13							43				
14							44				
15							45				
16							46				
17							47				
18							48				
19							49				
20							50				
21							51				
22							52				
23							53				
24							54				
25							55				
26							56				
27							57				
28							58				
29							59				
30							60				

METHODS: Digestion- 85% HClO₄ - H₂O₃ Sample Weight- 1.5gms

Determination- Atomic Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At _____
2. Walter Avramenko At _____
3. DAVID GRAGG At _____
4. Harry Olson
5. Geothermal Office
6. E. J. Rowe

LAB Amex - Denver

ANALYTICAL REPORT

DATE 11-20-81
 ANALYST PK
 TYPE SAMPLES R

REQ. NO. 12488 JOB NO. _____
 PROJECT 686
 REQUESTED BY Walter Arramenko

	SAMPLE	Mo ppm	Cu ppm	Ag ppm		SAMPLE				
01	G11001			180.		31				
02	G11002	<1	6600	1.6		32				
03	G11003	20	18,000	110.		33				
04	G11004	1	63	6.7		34				
05	G11006		3,200	2,500.		35				
06	G11007		38	19.		36				
07	G11008	30	100,000	110.		37				
08						38				
09						39				
10	G-37	19	460	1.8		40				
11						41				
12						42				
13						43				
14						44				
15						45				
16						46				
17						47				
18						48				
19						49				
20						50				
21						51				
22						52				
23						53				
24						54				
25						55				
26						56				
27						57				
28						58				
29						59				
30						60				

METHODS: Digestion- $HClO_4 - HNO_3$ Sample Weight- 1.5gm.
 Determination- Mo < 15 ppm, Color; Mo \geq 15 ppm, AA. Other elements run by AA.

REMARKS: Samples > 1000 ppm are out of Geochen range and should be Assayed.

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. Dean Pilkington At _____
 2. Walter Arramenko At _____
 3. David Gragg At _____
 4. Harry Olson
 5. Geothermal Office
 6. E. J. Rowe

LAB Amax - Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12486 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Avramenko

	SAMPLE	Mo ppm	Cu ppm	Pb ppm	Ag ppm		SAMPLE					
01	G 11011	2			190.		31					
02	G 11013				2.4		32					
03	G 11014	3	140		5.1		33					
04	G 11020	14	48,000	280	860.		34					
05	G 11021				1.2		35					
06	G 11028		31		.4		36					
07							37					
08	G-35	8	540	69	11.2		38					
09							39					
10							40					
11							41					
12							42					
13							43					
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- 85% HClO₄-HNO₃ Sample Weight- 1.05gms

Determination- Atomic Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At _____
- 2. Walter Avramenko At _____
- 3. DAVID GRAGO At _____
- 4. Harry Olson
- 5. Geothermal Office
- 6. E. J. Rowe

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 477
November 3, 1981
REQUISITION NO. 12487
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 2 Pulp Samples

ITEM	SAMPLE NO.	Au (ppm)
1	G11023	.17
2	G11029	.16

ITEM	SAMPLE NO.	Hg (ppm)
2	G11029	.07



Gordon H. VanSickle
Manager

DETERMINATIONS: Au - Atomic Absorption
Hg - Vapor Phase Atomic Absorption

cc: W. Avramenko
D. Gragg
L. D. Mullen
AMAX - Lakewood

LAB Amax-Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12487 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Auramenko

	SAMPLE	Cu ppm	Ag ppm					SAMPLE					
01	G11023	100	13.					31					
02	G11029	40	2.2					32					
03								33					
04								34					
05	G-30	5	.1					35					
06								36					
07								37					
08								38					
09								39					
10								40					
11								41					
12								42					
13								43					
14								44					
15								45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion-85% HClO₄-HNO₃ Sample Weight-1.05gm
Determination- AT. Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At
- 2. Walter Auramenko At
- 3. David Gragg At
- 4. Harry Olson
- 5. E. J. Rowe
- 6. Geothermal Office

LAB Amax-Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12487 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Avramenko

	SAMPLE	Cu PPM	Ag PPM				SAMPLE						
01	G11023	100	13.				31						
02	G11029	40	2.2				32						
03							33						
04							34						
05	G-30	5	.1				35						
06							36						
07							37						
08							38						
09							39						
10							40						
11							41						
12							42						
13							43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion-85% HClO₄-HNO₃ Sample Weight-1.5gm
Determination- AT. Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At
2. Walter Avramenko At
3. David Gragg At
4. Harry Olson
5. E. J. Rowe
6. Geothermal Office

LAB Amex - Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12488 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Walter Arramenko

	SAMPLE	Mo ppm	Cu ppm	Ag ppm			SAMPLE					
01	G11001			180.			31					
02	G11002	<1	6600	1.6			32					
03	G11003	20	18,000	110.			33					
04	G11004	1	63	6.7			34					
05	G11006		3,200	2,500.			35					
06	G11007		38	19.			36					
07	G11008	30	100,000	110.			37					
08							38					
09							39					
10	G-37	19	460	1.8			40					
11							41					
12							42					
13							43					
14							44					
15							45					
16							46					
17							47					
18							48					
19							49					
20							50					
21							51					
22							52					
23							53					
24							54					
25							55					
26							56					
27							57					
28							58					
29							59					
30							60					

METHODS: Digestion- $HClO_4 - HNO_3$

Sample Weight-1.5gm.

Determination- Mo < 15 ppm, Color; Mo ≥ 15 ppm, AA. Other elements run by AA.

REMARKS:

Samples > 1000 ppm are out of Geochen range and should be Assayed.

NOTE: Mail Original to AMAX Exploration, Inc., P. O. Box C Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At _____
- 2. Walter Arramenko At _____
- 3. David Gragg At _____
- 4. Harry Olson At _____
- 5. Geothermal Office At _____
- 6. E. J. Rowe At _____

LAB Amax - Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12486 JOB NO. _____

ANALYST PK

PROJECT 1086

TYPE SAMPLES R

REQUESTED BY Avramenko

	SAMPLE	Mo ppm	Cu ppm	Pb ppm	Ag ppm		SAMPLE						
01	G 11011	2			190.		31						
02	G 11013				2.4		32						
03	G 11014	3	140		5.1		33						
04	G 11020	14	48,000	280	860.		34						
05	G 11021				1.2		35						
06	G 11028		31		.4		36						
07							37						
08	G-35	8	540	69	11.2		38						
09							39						
10							40						
11							41						
12							42						
13							43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						
26							56						
27							57						
28							58						
29							59						
30							60						

METHODS: Digestion- 85% HClO₄-HNO₃ Sample Weight- 1.5gms

Determination- Atomic Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:

- 1. Dean Pilkington At _____
- 2. Walter Avramenko At _____
- 3. David Grago At _____
- ✓ 4. Harry Olson
- 5. Geothermal Office
- 6. E. J. Rowe

DEN 121974

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 480
December 7, 1981
REQUISITION NO. 12486
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean P. Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 8 Pulp Samples


ITEM	SAMPLE NO.	SiO2 (%)
3	G11012	.90

ITEM	SAMPLE NO.	Au (ppm)
2	G11011	220.00
4	G11013	.55
5	G11014	<.02
6	G11020	.09
7	G11021	<.02
8	G11028	.20

ITEM	SAMPLE NO.	Hg (ppm)
1	G11009	.18
5	G11014	.21
8	G11028	.21

DETERMINATIONS: SiO2 & Au - Atomic Absorption
Hg - Vapor Phase Atomic Absorption

cc's: ✓ W. Avramenko
D. Gragg
L. D. Mullen
AMAX - Lakewood


for Gordon H. VanSickle
Manager

MEMORANDUM

AMAX EXPLORATION, INC.

12620 WEST CEDAR DRIVE, P. O. BOX C
DENVER, COLORADO 80226

TO Bill Huntsman

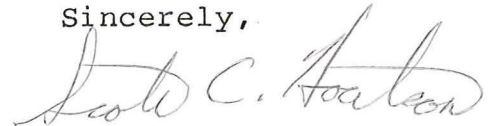
DATE August 7, 1981

FROM Scott C. Hoatson

SUBJECT broken sample bottles

Sample numbers W14732, W14736, and W15043 in glass bottles from Requisition number 12449, Project 686, were broken in transit. All analyses that were to be made from the aforementioned bottles will be made from the large polyethylene bottles instead.

Sincerely,



Scott C. Hoatson

SCH:sdc

cc: Allan Shenker
Harry Olson ✓
Elsie J. Rowe

Attached
List
Requisition 12832

DT-1 - DT-30

W 14164, 165

W 14231, 271, 272

W 14287 - 298

W 14315 - 317

W 14361 - 370

W 14374 - 388

W 14500

=

=

W 14700, 726 - 750

W 14991 - W 15000

W 15011 - 053

W 15070 - 162

W 15251 - 269

W 15271 - 325

W 15502

=

=

Sampler W 14 273 - 275, 371 - 373, 701 to be delivered
at a later date.

LAB Amax - Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12486 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Avramenko

	SAMPLE	Mo ppm	Cu ppm	Pb ppm	Ag ppm		SAMPLE				
01	G 11011	2			190.		31				
02	G 11013				2.4		32				
03	G 11014	3	140		5.1		33				
04	G 11020	14	48,000	280	860.		34				
05	G 11021				1.2		35				
06	G 11028		31		.4		36				
07							37				
08	G-35	8	540	69	11.2		38				
09							39				
10							40				
11							41				
12							42				
13							43				
14							44				
15							45				
16							46				
17							47				
18							48				
19							49				
20							50				
21							51				
22							52				
23							53				
24							54				
25							55				
26							56				
27							57				
28							58				
29							59				
30							60				

METHODS: Digestion- 85% HClO₄ - HNO₃ Sample Weight- 1.05gms
 Determination- Atomic Absorption

REMARKS:

NOTE: Mail Original to
 AMAX Exploration, Inc.,
 P. O. Box C
 Denver, Colorado 80226

Copies to:
 1. Dean Pilkington At
 2. Walter Avramenko At
 3. DAVID GRAGG At
 4. Harry Olson
 5. Geothermal Office
 6. E. J. Rowe

LAB Amax-Denver

ANALYTICAL REPORT

DATE 11-20-81

REQ. NO. 12487 JOB NO. _____

ANALYST PK

PROJECT 686

TYPE SAMPLES R

REQUESTED BY Auramenko

	SAMPLE	Cu PPM	Ag PPM					SAMPLE					
01	G11023	100	13.					31					
02	G11029	40	2.2					32					
03								33					
04								34					
05	G-30	5	.1					35					
06								36					
07								37					
08								38					
09								39					
10								40					
11								41					
12								42					
13								43					
14								44					
15								45					
16								46					
17								47					
18								48					
19								49					
20								50					
21								51					
22								52					
23								53					
24								54					
25								55					
26								56					
27								57					
28								58					
29								59					
30								60					

METHODS: Digestion-85% HClO₄-HNO₃ Sample Weight-1.5gm
Determination- AT. Absorption

REMARKS:

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
1. Dean Pilkington At
2. Walter Auramenko At
3. David Gregg At
4. Harry Olson
5. E. J. Rowe
6. Geothermal Office

LAB Amx - Denver

ANALYTICAL REPORT

DATE 11-20-81
ANALYST PK
TYPE SAMPLES R

REQ. NO. 12488 JOB NO. _____
PROJECT 686
REQUESTED BY Walter Avramenko

	SAMPLE	Mo ppm	Cu ppm	Ag ppm		SAMPLE					
01	G11001			180.		31					
02	G11002	<1	6600	1.6		32					
03	G11003	20	18,000	110.		33					
04	G11004	1	63	6.7		34					
05	G11006		3,200	2,500.		35					
06	G11007		.38	19.		36					
07	G11008	30	100,000	110.		37					
08						38					
09						39					
10	G-37	19	460	1.8		40					
11						41					
12						42					
13						43					
14						44					
15						45					
16						46					
17						47					
18						48					
19						49					
20						50					
21						51					
22						52					
23						53					
24						54					
25						55					
26						56					
27						57					
28						58					
29						59					
30						60					

METHODS: Digestion- $HClO_4 - HNO_3$ Sample Weight-1.5gm.
Determination- Mo < 15 ppm, Color; Mo \geq 15 ppm, AA. Other elements run by AA.

REMARKS: Samples > 1000 ppm are out of Geochen range and should be Assayed.

NOTE: Mail Original to
AMAX Exploration, Inc.,
P. O. Box C
Denver, Colorado 80226

Copies to:
✓ 1. Dean Pilkington At
2. Walter Avramenko At
3. David Gragg At
4. Harry Olson
5. Geothermal Office
6. E. J. Rowe

DEN 121974

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 479
December 14, 1981
REQUISITION NO. 12488
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 8 Pulp Samples

ITEM	SAMPLE NO.	Au (ppm)
1	G11001	.22
2	G11002	<.02
3	G11003	1.00
4	G11004	.53
6	G11006	.32
7	G11007	1.30
8	G11008	158.00

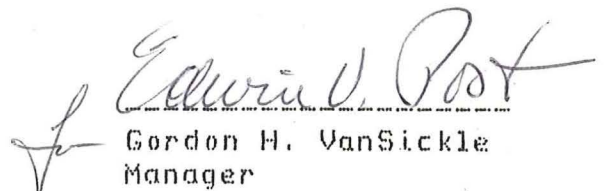
ITEM	SAMPLE NO.	Hg (ppm)
3	G11003	11.0
4	G11004	10.0
5	G11005	1.2

DETERMINATIONS:

Au - Atomic absorption

Hg - Vapor phase atomic absorption

cc's: ✓ Walter Avramenko, Golden
David Gragg, Golden
Dan Mullen, Lakewood
AMAX, Lakewood


Gordon H. VanSickle
Manager

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 479
December 14, 1981
REQUISITION NO. 12488
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 8 Pulp Samples

ITEM	SAMPLE NO.	Au (ppm)
1	G11001	.22
2	G11002	<.02
3	G11003	1.00
4	G11004	.53
6	G11006	.32
7	G11007	1.30
8	G11008	158.00

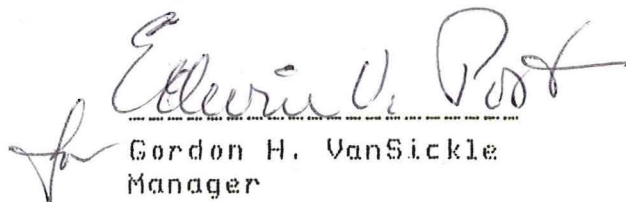
ITEM	SAMPLE NO.	Hg (ppm)
3	G11003	11.0
4	G11004	10.0
5	G11005	1.2

DETERMINATIONS:

Au - Atomic absorption

Hg - Vapor phase atomic absorption

cc's: Walter Avramenko, Golden
David Gragg, Golden
Dan Mullen, Lakewood
AMAX, Lakewood


Gordon H. VanSickle
Manager

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 480
December 7, 1981
REQUISITION NO. 12486
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean P. Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 8 Pulp Samples

ITEM	SAMPLE NO.	SiO2 (%)
------	------------	----------

3	G11012	.90
---	--------	-----

ITEM	SAMPLE NO.	Au (ppm)
------	------------	----------


2	G11011	220.00
4	G11013	.55
5	G11014	<.02
6	G11020	.09
7	G11021	<.02
8	G11028	.20

ITEM	SAMPLE NO.	Hg (ppm)
------	------------	----------

1	G11009	.18
5	G11014	.21
8	G11028	.21

DETERMINATIONS: SiO2 & Au - Atomic Absorption
Hg - Vapor Phase Atomic Absorption

cc's: W. Avramenko
D. Gragg
L. D. Mullen
AMAX - Lakewood


Gordon H. VanSickle
Manager

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

JOB NO. DAU 477
November 3, 1981
REQUISITION NO. 12487
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 2 Pulp Samples

ITEM	SAMPLE NO.	Au (ppm)
1	G11023	.17
2	G11029	.16

ITEM	SAMPLE NO.	Hg (ppm)
2	G11029	.07



Gordon H. VanSickle
Manager

DETERMINATIONS: Au - Atomic Absorption
Hg - Vapor Phase Atomic Absorption

cc: W. Avramenko
D. Gragg
L. D. Mullen
AMAX - Lakewood

SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS


JOB NO. DAU 477
November 3, 1981
REQUISITION NO. 12487
PROJECT NO. 686

AMAX Exploration, Inc.
Attn: Dean Pilkington
1706 Cole Boulevard
Golden, Colorado 80401

Analysis of 2 Pulp Samples

ITEM	SAMPLE NO.	Au (ppm)
1	G11023	.17
2	G11029	.16

ITEM	SAMPLE NO.	Hg (ppm)
2	G11029	.07


Gordon H. VanSickle
Manager

DETERMINATIONS: Au - Atomic Absorption
Hg - Vapor Phase Atomic Absorption

cc: W. Avramenko
D. Gragg
L. D. Mullen
AMAX - Lakewood

