PDR 40-8380

ROCKY MOUNTAIN ENERGY COMPANY

THIS DOCUMENT CONTAINS POOR QUALITY PAGES

July 28, 1980

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Mr. J. E. Rothfleisch
U.S. NUCLEAR REGULATORY COMMISSION
Uranium Recovery Licensing Branch 396-SS
Willste Building
7915 Eastern Avenue
Silver Springs, MD 20910

Dear Mr. Rothfleisch:

RE: Docket No. 40-8380
License No. SUA-1228

Per your telephone request of July 17, 1980, enclosed please find a copy of the preliminary water quality data for Pattern IV at Nine Mile Lake. Included are values and upper control limits (UCLs) for the Pattern IV monitor wells, including the shallow alluvium monitor well (SM-63) and the Pattern IV production well (P-62) pre-mining water quality. Also included at your request are the raw data sheets for the Pattern IV wells.

The preminary baseline (background) data presented in the tables was derived from the raw data according to the following criteria:

1. Outliers were removed according to Chauvenet's Criteria.

2. The mean ($\bar{x}$) and standard deviation (s) were calculated for each parameter following outlier removal.

3. Upper control limits (UCL) were calculated according to condition number 13 of the June 13, 1980, License Amendment, that is:

$$UCL = 1.1\ (X + 2S)$$

4. Alkalinity, pH, conductivity, and bicarbonate (HCO_3) background levels and means ($\bar{x}$) are determined from Nine Mile Lake analysis only. These are measurements which must be made in the field in order to obtain valid results, hence values reported by outside laboratories are discarded. Outside laboratory values for the field parameters are only used as rough cross-checks.

Values which are circled on the raw data sheets were determined to be outliers and were removed prior to determination of the mean and standard deviation.

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Should you have any questions concerning the information enclosed, please contact me or Rick Iwanicki.

Sincerely,

Michael R. Neumann

M. R. Neumann
Field Environmental
Coordinator

MRN/ph

cc: Kent Loest
Peter Bosse
Rick Iwanicki
Pat Spieles
Dennis Morrow (DEQ)
Margery Hulburt (DEQ)
Kathy Muller (DEQ)

July 10, 1980

NINE MILE LAKE

PATTERN IV

PRELIMINARY WATER QUALITY - PREMINING

PRODUCTION WELL (P62)

Constituent	$\bar{x}$	Constituent	$\bar{x}$
Aluminum	0.17	Manganese	0.12
Alkalinity ($CaCO_3$ eq.)	245	Mercury	0.0001
Ammonia (N)	0.15	Molybdenum	0.02
Arsenic	0.009	Nickel	0.03
Barium	0.02	Nitrate (N)	0.56
Bicarbonate (HCO_3)	299	Nitrite (N)	0.05
Boron	0.28	pH	6.72
Cadmium	0.01	Potassium	9.6
Calcium	76	Selenium	0.083
Carbonate (CO_3)	0	Silica (SiO_2)	9.2
Chloride	40	Sodium	511
Chromium	0.07	Sulfate	1303
Conductivity[1]	2588	TDS	2154
Copper	0.016	Vanadium	0.13
Fluoride	0.55	Zinc	0.02
Iron	0.17	Uranium (U_3O_8)	0.120
Lead	0.04	Radium-226[2]	*
Magnesium	79	Thorium-230[2]	*

All values are given in milligrams/liter, except as noted

* Analysis is pending

[1] Units are µmhos/cm

[2] Units are pCi/l

NINE MILE LAKE

PATTERN 4

PRELIMINARY WATER QUALITY DATA

MONITOR WELLS

July 1980

		M54		M55		M56		M57		SM68	
Excursion Parameter	Unit	$\bar{x}$	UCL	$\bar{x}$	UCL	$\bar{x}$	UCL	$\bar{x}$	UCL	$\bar{x}$	UCL
pH	pH	6.55	7.50	6.92	7.77	6.87	7.63	6.92	7.81	8.16	9.22
Conductivity	umhos/cm	6494	8413	2736	3285	2530	3067	2685	3363	14533	16875
Chloride (Cl)	mg/l	85	131	40	59	38	57	41	60	99	435
Bicarbonate (HCO_3)	mg/l	268	322	318	380	299	373	310	373	642	708
Uranium (U_3O_8)	mg/l	0.106	0.178	0.306	.464	0.103	0.199	0.100	.155	0.053	0.091
Calcium (Ca)	mg/l	235	329	100	133	81	105	87	112	475	639
Vanadium (V)	mg/l	0.07	0.19	0.09	0.21	0.17	0.36	0.17	.34	0.79	1.22

UCL = 1.1 ($\bar{x}$ + 2s); $\bar{x}$ = mean, s = standard deviation

NM- m54

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cl	9 Ca	CO_3
W 1										
1/28 NMR		239		ND		291			238	0
CDMR										
4										
5										
5/6 NMR		216		ND		264			249	
CDMR									195	0
W 8									220	
9										
5/15 NMR		266				325			265	
11										
12										
13										
14										
5/20 NMR		212				259			325	
16										
17										
18										
5/23 NMR		216				263			262	0
20										
21									218	
5/27 NMR		226				276				
23										
24										
6/4 NMR	.30	205			.14	254			346	0
CDMR	3.6	170	.23	.024	<.1	210	.3	.01	190	0
27										
6/12 NMR	1.3	221			ND	269			282	0
29										
30										
31										

NM- M54

	1 Cl	2 Cr	Cond	4 Cu	5 EMF	6 F	7 Hard	8 Fe	9 Pb	Mg
4/28 W1	60		9185							
NM2	62		5500		+110		808	1.33		100
CDM	68		8810							
4										
5										
5/6 NM8	84		6000		+120		1242	1.02		108
CDM	75						973	1.14		110
W3							1070	.93		127
9										
10										
5/15 NM11	89		6400		+160			0.8		120
12										
13										
14										
15										
5/20 NM15	99		7500		+200			2.1		144
17										
18										
19										
5/23 NM2	118		7000		+100			0.4		135
21										
22										
5/27 NM	82		6200					2.69		110
24										
25										
6/4 NM	98	<.003	6500	.01	+160			0.68	.17	144
CDM	97	<.05	6650	<.02		.5	1260	3.9	.008	135
28										
29										
6/2 NM30	95	.03	6700	.02	+100			2.0	0.11	115
31										

EFFICIENCY LINE No. 2636

NML- m54

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
4/28 W1										
CDM										
NM	.46						6.64	13.7		13.2
4										
5										
5/6 NM	.50						6.44	13.0		13.0
CDM	.47							10.0		8.0
W8	.36							35.0		29
EA 9									.002	
10										
5/15 NM							6.78	32.6		19.8
12										
13										
14										
5/20 NM	.80						6.4	12.6		18.6
16										
17										
18										
5/23 NM							6.47	140		14.0
20										
21										
6/2 NM23	.52		.08	.05			6.42	125		24.4
23										
24										
6/4 NM25	.46		.09	.07			6.63	13.8		16.7
CDM	.48	<.0001	.04	.09	<.05	<.05	6.60	10.1	0.100	11.0
27										
28										
29								12.5		
5/27 NM										
31										

EFFICIENCY LINE No. 2638

NML - M54

	1 Ag	2 Na	3 SO_4	4 TDS	5 V	6 Zn	7 U_3O_8	8 Al	9
1/28 W1					.03		.063		
NM2		1168	3133	5260	.06		.140		
COM 4					.061		.224		
5									
1/6 NM 8		1214	3515	5540	.29		.100		
COM		950	2860	5300	.056		.165		
W8 9		1425	3640	5680	.13		.085		
5/6 NM 11		1392	3481	5700	.06		.124		
12									
13									
14									
5/20 NM 16		1561	4603	7060	.05		.103		
17									
18									
5/23 NM 20		1448	3719		0.3		.099		
21									
5/27 NM 23		1224	3368		0.1		.103		
24									
6/2 NM 26		1107	4088	6040	ND	.12	.082		
27									
6/4 NM		1709	4093	6520	<.06	.17	.101		
COM 30	.03	1630	4040	6180	.15	.22		102	
31									

n54

	1 Pb-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY, LINE No. 2636

NM M55

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cd	9 Ca	CO_3
1/28 NMC		270				330			112	
CDM										
W3										
4										
5/6 NMC		247				301			112	
CDM									57	0
W									94	
8										
5/13 NMC		266				325			106	
10										
11										
12										
5/20 NMC	.64	266				324			109	
14										
15										
16										
5/27 NMC	7.45	273				333			96	
18										
19										
6/4 NMC	<.02	247			<.02	301			102	0
CDM	0.8	220	<.05	.006	<.1	270	0.3	<.01	83	0
22										
6/12 NMC	2.23	254			ND	310			88	0
24										
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY LINE No. 2636

NM -MS-

	1 Cl	2 Cr	Cond	4 Cu	5 ~~Sn~~ EMF	6 F	7 Hard	8 Fe	9 Pb	Mg
1/28 NMB	32		2800		0			.39		
CDM	31		3550							
W 3	40		4455							
4										
5/6 NMB	44		2800		+120			.39		55
CDM	33							.49		
W	36							.62		
8										
5/15 NMB	44		2900		+155			.4		63
10										
11										
12										
5/20 NMB	38		2600		+130			.7		48
14										
15										
16										
5/27 NMB	50		2800					10.96		52
18										
19										
6/4 NMB	.5	.04	6400	<.02	+110			0.31	.11	72
CDM	35	<.05	2550	<.02		.5	458	.80	.004	58
22										
23										
6/2 NMB	50	0.13	2700	.01	+180			3.6	.07	45
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY LINE No. 2636

NM-MSS

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
22 NMC							6.87			
COM 2										
W 3										
4										
1/6 NMC							6.79	9.2		
EA 5									.002	
7										
8										
5/15 NMC							7.00	9.3		9.2
10										
11										
12										
5/20 NMC							6.89	6.6		9.9
14										
15										
5/27 NMC							6.90	8.7		47.0
17										
18										
6/4 NMC	.1		.02	.04			6.99	7.8		9.2
COM	.16	<.0001	.006	.06	<.05	<.05	7.0	6.7	.074	6
21										
6/2 NMC	.23		.10	.02			6.94	6.0		11.3
23										
24										
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY® LINE No. 2636

NM - MSS

	1 Ag	2 Na	3 SO_4	4 TDS	5 V	6 Zn	7 U_3O_8	8 A/C	9
5/2 NMB					.06				
CDM					.011				
W 3					.10		.058		
4									
5/6 NMB		515	1452		.14		.215		
CDM					.012		.307		
WB					.07		.079		
8									
5/19 NMB		561	1421	2700	.06		.233		
10									
11									
12									
5/20 NMB		520	1268	2160	.06		.392		
14									
15									
5/27 NMB		479	1291	2140	0.2		.391		
17									
18									
6/4 NMB		632	1316	2320	<.06	.02	.286 .255		
CDM	<.02	583	1310	2110	.016	.04		105	
21									
22									
6/2 NMB		434	1310	2140	ND	.03	.295		
24									
25									
26									
27									
28									
29									
30									
31									

EFFICIENCY® LINE No. 2636

NM-M55

EFFICIENCY LINE No. 2636

	1 Pb-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										

NM - M56

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cd	9 Ca	CO_3
4/29 NMR		271				331			90	
W2		213				260				
CDM		197				240				
4										
5/6 NMR		239				291			90	
CDM									43	
W7									72	
5/15 NMR		266				324			83	
9										
10										
11										
5/20 NMR		230				281			88	
13										
14										
15										
6/27 NMR		238				290			78	
17										
18										
6/4 NMR	<.02	231			<.02	282			86	
CDM	.7	210	<.05	.009	<.1	250	0.3	<0.01	63	0
21										
22										
6/2 NMR	0.81	242			ND	295			72	0
24										
25										
26										
27										
28										
29										
30										
31										

NM-56

	1 Cl	2 Cr	Cond	4 Cu	5 EMF	6 F	7 Hard	8 Fe	9 Pb	Mg
5/29 NMC	34		2500		+10			.08		
W 2	30		2470							
CDM 4	27		2340							
5/6 NMC	44		2400		+190			.08		42
CDM	32							.19		
W 8	34							.08		
5/16 NMC 10	42		2700		+155			0.1		45
11										
12										
5/20 NMC 14	39		2600		+240			.29		48
15										
5/27 NMC 17	48		2600					6.05		49
18										
6/4 NMC	45	<.003	2700	<.002	+120			0.10	.09	60
CDM 21	31	<.05	2390	<.02		.6	371	.52	.007	50
22										
6/2 NMC 24	44	ND	2600	.01				1.0	.06	39
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY LINE No. 2636

NM - MSG

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
5/29 NMW							6.88			
2										
COM										
4										
5/6 NMB							6.83	8.3		8.6
EPS									.005	
7										
8										
5/13 NMB							6.92	7.8		9.7
10										
11										
12										
5/20 NMB							6.88	7.2		9.9
14										
15										
5/27 NMW	.18						6.84	7.1		30.6
17										
18										
6/4 NMB	.12		.06	.03			6.68	7.0		8.9
COMB	.12	<.0001	.023	.06	.78	<.05	7.5	6.1	0.10	2
21										
22										
6/2 NMB	.13		.21	.02			6.87	5.6		9.7
24										
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY LINE No. 2636

NM-M56

	1 Ag	2 Na	3 SO_4	4 TDS	5 V	6 Zn	7 U_3O_8	8 A/C	9	
1/29 NMLS					.13					
W 2					.11		.041			
COM 4					.095					
1/6 NMB		459	1261		.21		.098			
COM					.125		.092			
W					.24		.076			
5/15 NMB		510	1116	1800	.06		.158			
9										
10										
11										
5/30 NMB		474	1206	1980	.10		.118			
13										
14										
5/27 NMB		459	1127		.3		.093			
16										
17										
6/4 NMB		576	1190	2140	0.14	.02	.170 .108			
CDM	<.02	520	1170	1990	.32	.03		102		
20										
21										
6/2 NM		518	1251	1980	.17	.01	.072			
23										
24										
25										
26										
27										
28										
29										
30										
31										

AMERICAN AGENCY LINE No. 2636

NM- M56

	1 Po-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
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17										
18										
19										
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21										
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23										
24										
25										
26										
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28										
29										
30										
31										

EFFICIENCY LINE No. 2636

MS 1

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cd	9 Ca	CO_3
1/30 NMW		271				331			93	
2 W		240				293				
3 COMB		205				250				
4										
5/7 NMW		255				311			93	
6 COMB									55	
7 W									80	
8										
5/15 NMW		268				327			90	
10										
11										
12										
5/20 NMW		249				304			95	
14										
15										
5/27 NMW		250				305			78	
17										
18										
6/4 NMW	.06	239			<.02	292			87	
COMB	10	210	.23	.012	<.1	260	0.3	<.01	64	0
21										
6/2 NMW	.83	245			ND	299			76	0
23										
24										
25										
26										
27										
28										
29										
30										
31										

AMPAD EFFICIENCY LINE No. 2636

M57

EMF

	1 Cl	2 Cr	Cond	4 Cu	5 ~~Zn~~	6 F	7 Hard	8 Fe	9 Pb	Mg
4/30 NMB	43		2900		+120			.28		
W 2	33		2935							
COMA	32		2960							
4										
5/7 NMB	47		2500		+180			.28		43
COMA	32							.41		
W7	36							.23		
8										
5/15 NMB	47		2750		+165			0.1		48
10										
11										
12										
5/20 NMB	39		2500		+200			.65		48
14										
15										
5/27 NMB	49		2500					0.59		47
17										
18										
6/4 NMB	48	<.003	2600	<.002	+133			0.18	.09	60
COMA	33	<.05	2600	<.02		.6	400	7.9	.01	55
21										
22										
6/2 NMB	47	ND	2600	.01				1.1	.05	39
24										
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY® LINE No. 2670

M51

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
30 NMLs							6.87			
W 2										
CDM 3										
4										
5/7 NML 5							7.06	8.7		
EPS										.006
7										
8										
5/15 NML							6.88	7.8		8.9
10										
11										
12										
5/20 NML							6.79	7.2		14.5
14										
15										
16										
5/27 NML	.19						6.96	6.5		8.6
18										
19										
6/4 NML	.12		<.01	.03			6.97	7.0		8.9
CDM	.15	<.0001	.012	.07	.23	<.05		7.5	.044	6
22										
6/2 NML	0.16		ND	.01			6.91	6.1		10.0
24										
25										
26										
27										
28										
29										
30										
31										

EFFICIENCY LINE No. 2036

M 57

	1 Ag	2 Na	3 SO4	4 TDS	5 V	6 Zn	7 U3O8	8 A/C	9
4/30 NMW					.14		.		
W 2					.13		.069		
CPM 3					.16		.		
4									
5/1 NMW		495	1308		.18		.115		
CPM					.136		.118		
W					.30		.091		
5/15 NMW		525	1278	1780	.09		.094		
9									
10									
11									
5/29 NMW		485	1237	2020	.06		.135		
13									
14									
15									
6/27 NMW		479	1497	2140	.2		.088		
17									
18									
6/4 NMW		592	1237	2100	.15	.01	.089 .096		
CPM	<.02	521	1080	2040	.29	.05		111	
21									
6/2 NMW		393	1276	2040	.18	.01	.109		
23									
24									
25									
26									
27									
28									
29									
30									
31									

EFFICIENCY® Form No. 2636

M57

	1 Pb-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
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EFFICIENCY LINE No. 2636

NM - P62

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cl	9 Ca	CO_3
5/23/80 NL		252				307			86	0
CDMR		210	.29	.010		260	.3		58	0
3										
4										
5/27 NL	.15	249	<0.1		ND	303			75	0
CDMR		210	.31	.008		260	.2		57	0
7										
6/2 NL	.12	231			ND	282			82	0
CDMR	.3	210	<.05	.01	<.1	250	.3	.01	74	0
10										
11										
6/31 NL	.07	250	<0.1		ND	305			83	0
13										
14										
6/3 NL		245			<.02	299			94	0
CDMR	<.2	220	<.05	.009	<.1	260	0.3	0.01	71.5	0
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EFFICIENCY LINE No. 2636

P62

	1 Cl	2 Cr	Cond	4 Cu	5 Eh	6 F	7 Hard	8 Fe	9 Pb	Mg
1/23 NMIL 1	52		7200 bad		+80			.04		34
CONT	33						392	.30		43
3										
4										
5/2 NMIL	67	ND	2700	ND .02	+180			.1, dup .22	.005 ND	91
CONT	32						404	.23		43
7										
6/2 NMIL	44	ND	2500	.01	+90			0.1	.04	45
CONT	34	<.05	2540	<.02		0.6	421	.20	.004	55
10										
11										
5/31 NMIL	47	0.14	2500	.01	+165			.15	.05	39
13										
14										
6/3 NMIL	46	.09	2700	<.002	+135			<.06	.11	60
CONT 16	29	<.05		<.02		.5	466	.25	.002	54
17										
18										
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EFFICIENCY LINE No. 2636

P62

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
5/23 NMV 1							6.33	8.9		8.0
CDM	.13							6.4	.052	5
3										
5/27 NMV	.12		.04	.2			6.83	7.0		8.7
CDM	.13							6.5	.045	6
6										
6/1 NMV	.10		.04	.01			6.91			9.9
CDM	.12	<.0001	<.005	.05	.64	<.05		6.35	.18	5
9										
5/31 NMV 10	.14		ND	.01			6.77	6.3		9.9
11										
12										
6/3 NMV 13	.12		<.01	.03			6.75	7.3		9.3
CDM	.10	<.0001	.016	<.04	.48	.05		6.4	.055	6
15										
16										
17										
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EFFICIENCY® LINE No. 2636

p62

	1 Ag	2 Na	3 SO_4	4 TDS	5 V	6 Zn	7 U_3O_8	8 C/A	9	
1/23 NM1		495	1256	2180	0.1		.087			
CDM2		462	1260	2060	.13		.12			
3										
5/22 NM4		495	1382	2240	.3	.01	.143			
CDM4		473	1250	2040	.13		.096			
6										
7										
6/21 NM8		505	1360	2240	.12	.01	.146			
CDM8	<.02	577	1330	2100	.19	.02		102		
10										
11										
7/31 NM12		413	1293	2140	.10	.02	.114			
13										
14										
15										
8/3 NM15	<	612	1332	2240	.14	.01	.134			
CDM15	<.02	568	1260	2150	.16	.03		105		
18										
19										
20										
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EFFICIENCY® LINE No. 12636

	1 Po-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
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EFFICIENCY® LINE No. 2036

0B67

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cd	9 Ca	CO_3
5/8 NM		228				278			139	0
CDM 2									83	
W 3									138	
4										
5/11 NM 5		270				330			153	0
6										
7										
5/25 NM 8		248				303			143	0
9										
10										
11										
5/27 NM 12		235				287			142	
13										
14										
6/2 NM 15	.17	236			ND	288			150	0
16										
17										
18										
6/4 NM 19	.15	228			<.02	278			149	0
CDM 20	.4	200	.06	.008	<.1	240	.2	.01	114	0
21										
22										
23										
24										
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EFFICIENCY LINE No. 2636

OB-67

	1 Cl	2 Cr	Cond	4 Cu	5 EMF	6 F	7 Hard	8 Fe	9 Pb	Mg
5/8 NMA	54		3600		+135			.36		75
CDM2	45							.40		
WB	43							.32		
4										
5/15 NMA	50		3250		+145			0.5		87
6										
7										
5/23 NMB	65		3700		+70			.20		85
9										
10										
11										
5/27 NMA	56		3700		+120			.47		80
13										
14										
6/2 NMA	57	.01	3400	.01	±0			0.4	.07	84
16										
17										
6/4 NMB	58	<.003	3600	.01	+110			.33	.14	96
CDM	44	<.05	3460	<.02		0.5	729	.48	.002	90
20										
21										
22										
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EFFICIENCY LINE No. 2636

DB-67

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
5 NMW 1							6.38	10.0		
EA 2									.002	
3										
/15 NMW 4							6.92	11.8		
5										
6										
/25 NMW	.42						6.99	10.4		8.2
8										
9										
10										8.4
/27 NMW	.37						6.90	9.3		
12										
13										
14										
/2 NMW	.25		.02	.02			6.65	9.2		9.6
16										
17										
/4 NMW	.23		<.01	.03			6.77	10.0		9.3
COM	.20	<.0001	<.005	<.04	<.05	<.01		8.7	.015	5.0
20										
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EFFICIENCY LINE No. 2636

OB-67

	1 Ag	2 Na	3 SO_4	4 TDS	5 V	6 Zn	7 U_3O_8	8 A/C	9
4/ NM 1		556	3954		.03		.112		
COM 2					.042		.152		
W 3					.02		.080		
4									
1/15 NM 5		699	1806		.06		.148		
6									
7									
8									
5/28 NM 9		658	2015		0.1		.163		
10									
11									
5/27 NM		638	1908		.1		.079		
13									
14									
5/2 NM 3		525	1946	3100	.1	.02	.170		
16									
17									
18									
5/4 NM 19		765	1897	3180	<.06	.02	.113		
COM 20	<.02	715	1900	2940	.012	.03		100	
21									
22									
23									
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EFFICIENCY, LINE No. 2036

DB-67

	1 Pb-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
1										
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EFFICIENCY LINE No. 2636

SM-68

	1 Al	2 Alk	3 NH_3	4 As	5 Ba	6 HCO_3	7 B	8 Cd	9 Ca	CO_3
9-80 NML 1	.04	525			ND 0.02	641			535	0
2										
3										
4										
16 NML 5	.40	526			ND 0.02	642			450	0
6										
7										
8										
13 NML	.94	527			ND 0.02	643			439	
10										
11										
12										
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EFFICIENCY LINE No. 2636

SM-60

EFFICIENCY LINE No. 2636

		1 Cl	2 Cr	Cond	4 Cu	5 ~~Eh~~ EMF	6 F	7 Hard	8 Fe	9 Pb	Mg
3/9/80	NML 1	228	.03	14100	.010	+145			0.15	.29	233
	2										
	3										
	4										
	5										
3/16	pmla	326	.03	14600	.008 ~~+40~~	+90			1.08	.31	221
	7										
	8										
	9										
4/13	pmla	313	.04	14900	ND .001	+100			0.54	.28	235
	11										
	12										
	13										
	14										
	15										
	16										
	17										
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	29										
	30										
	31										

SM-68

	1 Mn	2 Hg	3 Mo	4 Ni	5 NO_3	6 NO_2	7 pH	8 K	9 Se	SiO_2
1	.01		.35	.07			8.28	22.1		9.6
2										
3										
4										
5	.25		.23	.09			8.08	20.1		11.9
6										
7										
8	.34		.24	.08			8.12	20.3		12.1
9										
10										
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EFFICIENCY® LINE No. 2636

SM68

	1 Ag	2 Na	3 SO_4	4 TDS	5 V	6 Zn	7 U_3O_8	8	9
9/80 @ [illegible]		4000	9046	14760	.06	.03	.063		
2									
3									
4									
1/13 [illegible]		3667	10032	14960	0.68	.06	.036		
6									
7									
8									
1/[illegible] [illegible]		3932	9802	15340	0.90	.08	.059		
10									
11									
12									
13									
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EFFICIENCY® LINE No. 2636

Sm68

	1 Pb-210	2	3 Po-210	4	5 Ra-226	6	7 Th-230	8	9	
4/9 1										
2										
3										
4										
Sm 4/13					1.0 ± .7		5.8 ± 5.0			
6										
7										
8										
Sm 4/16					1.7 ± 0.9		5.5 ± 5.0			
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EFFICIENCY LINE No. 2636