

GROUND WATER RESULTS

1st Qtr. 1985

8509190181 850826
PDR ADOCK 04003453
C PDR

ATLAS MINERALS

Approved By: SB Lasher

MOAB MILL

EDA Log #: 4469-3

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1st Quarter 1985

Well # _____

Date and Time Sample Was Collected March 20, 1985Location of Sample MW3

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta -Total		<u>4/18/23/85</u>	<u>710 x 10⁻⁹</u>	<u>50 x 10⁻⁹</u>		<u>D. Lasher</u>
U-Nat	<u>3x10⁻⁵ uci/ml</u>	<u>4/8-16/85</u>	<u>2220 x 10⁻⁹</u>	<u>--</u>	<u>8x10⁻¹⁰ uci/ml</u>	<u>B. Tonnin</u>
Ra-226	<u>3x10⁻⁸ uci/ml</u>	<u>4/12-24/85</u>	<u>0.1 x 10⁻⁹</u>	<u>0.2 x 10⁻⁹</u>	<u>4.9x10⁻¹⁰ uci/ml</u>	<u>J. Garci</u>
Th-230	<u>2x10⁻⁶ uci/ml</u>	<u>4/8-24/85</u>	<u>1.3 x 10⁻⁹</u>	<u>3.5 x 10⁻⁹</u>	<u>4.9x10⁻¹⁰ uci/ml</u>	<u>Ph. Haas</u>
Pb-210	<u>1x10⁻⁷ uci/ml</u>	<u>3/28-4/16/85</u>	<u>2.3 x 10⁻⁹</u>	<u>1.1 x 10⁻⁹</u>	<u>3.7x10⁻⁹ uci/ml</u>	<u>J. Jones</u>
Po-210	<u>7x10⁻⁷ uci/ml</u>	<u>4/5-15/85</u>	<u>0.0 x 10⁻⁶</u>	<u>0.6 x 10⁻⁹</u>	<u>2.0x10⁻⁹ uci/ml</u>	<u>J. Jones</u>

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	<u>.001 PPM</u>	_____
Na+	_____	_____	_____	<u>.001 PPM</u>	_____
Cl-	<u>4/2/85</u>	<u>1900</u>	_____	<u>.40 PPM</u>	<u>D. Rose</u>
SO ₄	<u>4/3/85</u>	<u>16900</u>	_____	<u>.21 PPM</u>	<u>D. Rose</u>
NO ₃	<u>4/24/85</u>	<u>60</u>	_____	<u>.01 PPM</u>	<u>D. Rose</u>
Fe	_____	_____	_____	<u>.001 PPM</u>	_____
Mn	_____	_____	_____	<u>.01 PPM</u>	_____
As	<u>4/22/85</u>	<u><0.001</u>	_____	<u>.10 PPM</u>	<u>R. McCallister</u>
Se	<u>4/23/85</u>	<u><0.002</u>	_____	<u>.50 PPM</u>	<u>R. McCallister</u>
Cu	_____	_____	_____	<u>.01 PPM</u>	_____
TDS	<u>4/1/85</u>	<u>27200</u>	_____	<u>1.0 PPM</u>	<u>D. Rose</u>
PH	<u>3/20/85</u>	<u>7.3</u>	_____	<u>.10 Units</u>	<u>DLE</u>
Conductivity	<u>3/20/85</u>	<u>24,500</u>	_____	<u>10 umhos</u>	<u>DLE</u>

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1 st Quarter 1985

Well # _____

Date and Time Sample Was Collected March 20, 1985Location of Sample MW1 - R

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta -Total		4/18-23/85	1820 x 10 ⁻⁹	70 x 10 ⁻⁹		D. Lasher
U-Nat	3x10 ⁻⁵ uci/ml	4/8-16/85	1210 x 10 ⁻⁹	--	8x10 ⁻¹⁰ uci/ml	B. Tonnir
Ra-226	3x10 ⁻⁸ uci/ml	4/12-24/85	5.7 x 10 ⁻⁹	1.2 x 10 ⁻⁹	4.9x10 ⁻¹⁰ uci/ml	J. Garcia
Th-230	2x10 ⁻⁶ uci/ml	4/8-24/85	2.8 x 10 ⁻⁹	1.7 x 10 ⁻⁹	4.9x10 ⁻¹⁰ uci/ml	D. Haas
Pb-210	1x10 ⁻⁷ uci/ml	3/28- 4/16/85	2.6 x 10 ⁻⁹	1.0 x 10 ⁻⁹	3.7x10 ⁻⁹ uci/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	4/5-15/85	4.4 x 10 ⁻⁹	1.2 x 10 ⁻⁹	2.0x10 ⁻⁹ uci/ml	J. Jones

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+				.001 PPM	
Na+				.001 PPM	
Cl-	4/2/85	2600		.40 PPM	D. Rose
SO ₄	4/3/85	9260		.21 PPM	D. Rose
NO ₃	4/24/85	240		.01 PPM	D. Rose
Fe				.001 PPM	
Mn				.01 PPM	
As	4/22/85	<0.001		.10 PPM	R. McCallister
Se	4/23/85	<0.002		.50 PPM	R. McCallister
Cu				.01 PPM	
TDS	4/1/85	19800		1.0 PPM	D. Rose
PH	3/20/85	7.3		.10 Units	DLE
Conductivity	3/20/85	16,500		10 umhos	DLE

ATLAS MINERALS

MOAB MILL

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1st Quarter 1985

Approved By: DB LashEDA Log #: 4469 - 2DLE
12-2

Well # _____

Date and Time Sample Was Collected March 20, 1985Location of Sample MW2 - R

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta - Total		4/18-23/85	4800×10^{-9}	100×10^{-9}		D. Lashe
U-Nat	3×10^{-5} uci/ml	4/8-16/85	11900×10^{-9}	--	8×10^{-10} uci/ml	B. Tonnin
Ra-226	3×10^{-8} uci/ml	4/12-24/85	3.1×10^{-9}	0.6×10^{-9}	4.9×10^{-10} uci/ml	I. Garci
Th-230	2×10^{-6} uci/ml	4/8-24/85	12×10^{-9}	3×10^{-9}	4.9×10^{-10} uci/ml	G. Haas
Pb-210	1×10^{-7} uci/ml	3/28- 4/16/85	2.9×10^{-9}	0.9×10^{-9}	3.7×10^{-9} uci/ml	J. Jones
Po-210	7×10^{-7} uci/ml	4/5-15/85	1.0×10^{-9}	0.8×10^{-9}	2.0×10^{-9} uci/ml	J. Jones

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	.001 PPM	_____
Na+	_____	_____	_____	.001 PPM	_____
Cl-	4/2/85	2900	_____	.40 PPM	D. Rose
SO ₄	4/3/85	9640	_____	.21 PPM	D. Rose
NO ₃	4/24/85	470	_____	.01 PPM	D. Rose
F-	_____	_____	_____	.001 PPM	_____
Mn	_____	_____	_____	.01 PPM	_____
As	4/22/85	<0.001	_____	.10 PPM	R. McCallister
Se	4/23/85	<0.002	_____	.50 PPM	R. McCallister
Cu	_____	_____	_____	.01 PPM	_____
TDS	4/1/85	21600	_____	1.0 PPM	D. Rose
PH	3/20/85	7.4	_____	.10 Units	DLE
Conductivity	3/20/85	18,000	_____	10 umhos	DLE

ATLAS MINERALS

MOAB MILL

Approved By: DB LashEDA Log #: 4469 - 4

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1st Quarter 1985

Well # _____

Date and Time Sample Was Collected March 20, 1985Location of Sample ATP - 2 D

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta-Total		<u>4/18-23/85</u>	<u>1140 x 10⁻⁹</u>	<u>60 x 10⁻⁹</u>		<u>D. Lashe</u>
U-Nat	<u>3x10⁻⁵ uci/ml</u>	<u>4/8-16/85</u>	<u>3520 x 10⁻⁹</u>	<u>--</u>	<u>8x10⁻¹⁰ uci/ml</u>	<u>B. Tonnir</u>
Ra-226	<u>3x10⁻⁸ uci/ml</u>	<u>4/12-24/85</u>	<u>0.4 x 10⁻⁹</u>	<u>0.3 x 10⁻⁹</u>	<u>4.9x10⁻¹⁰ uci/ml</u>	<u>J. Garcia</u>
Th-230	<u>2x10⁻⁶ uci/ml</u>	<u>4/8-24/85</u>	<u>2.8 x 10⁻⁹</u>	<u>2.0 x 10⁻⁹</u>	<u>4.9x10⁻¹⁰ uci/ml</u>	<u>O. Haas</u>
Pb-210	<u>1x10⁻⁷ uci/ml</u>	<u>3/28-4/16/85</u>	<u>0.6 x 10⁻⁹</u>	<u>0.9 x 10⁻⁹</u>	<u>3.7x10⁻⁹ uci/ml</u>	<u>J. Jones</u>
Po-210	<u>7x10⁻⁷ uci/ml</u>	<u>4/5-15/85</u>	<u>0.3 x 10⁻⁹</u>	<u>0.7 x 10⁻⁹</u>	<u>2.0x10⁻⁹ uci/ml</u>	<u>J. Jones</u>

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	<u>.001 PPM</u>	_____
Na+	_____	_____	_____	<u>.001 PPM</u>	_____
Cl-	<u>4/2/85</u>	<u>1500</u>	_____	<u>.40 PPM</u>	<u>D. Rose</u>
SO ₄	<u>4/3/85</u>	<u>29300</u>	_____	<u>.21 PPM</u>	<u>D. Rose</u>
NO ₃	<u>4/24/85</u>	<u>90</u>	_____	<u>.01 PPM</u>	<u>D. Rose</u>
Fe	_____	_____	_____	<u>.001 PPM</u>	_____
Mn	_____	_____	_____	<u>.01 PPM</u>	_____
As	<u>4/22/85</u>	<u><0.001</u>	_____	<u>.10 PPM</u>	<u>R. McCallister</u>
Se	<u>4/23/85</u>	<u><0.002</u>	_____	<u>.50 PPM</u>	<u>R. McCallister</u>
Cu	_____	_____	_____	<u>.01 PPM</u>	_____
TDS	<u>4/1/85</u>	<u>39500</u>	_____	<u>1.0 PPM</u>	<u>D. Rose</u>
PH	<u>3/20/85</u>	<u>7.6</u>	_____	<u>.10 Units</u>	<u>DLE</u>
Conductivity	<u>3/20/85</u>	<u>36,000</u>	_____	<u>10 umhos</u>	<u>DLE</u>

ATLAS MINERALS

Approved By: DS Lashen

MOAB MILL

EDA Log #: 4469 - 5

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1st Quarter 1985

Well # _____

Date and Time Sample Was Collected March 20, 1985Location of Sample ATP-2 S

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta-Total		<u>4/18-23/85</u>	<u>5100 x 10⁻⁹</u>	<u>200 x 10⁻⁹</u>		<u>D. Lashe</u>
U-Nat	<u>3x10⁻⁵ uci/ml</u>	<u>4/8-16/85</u>	<u>7970 x 10⁻⁹</u>	--	<u>8x10⁻¹⁰ uci/ml</u>	<u>B. Tonnin</u>
Ra-226	<u>3x10⁻⁸ uci/ml</u>	<u>4/12-24/85</u>	<u>0.3 x 10⁻⁹</u>	<u>0.3 x 10⁻⁹</u>	<u>4.9x10⁻¹⁰ uci/ml</u>	<u>J. Garcil</u>
Th-230	<u>2x10⁻⁶ uci/ml</u>	<u>4/8-24/85</u> <u>3/28-</u>	<u>6.3 x 10⁻⁹</u>	<u>4.9 x 10⁻⁹</u>	<u>4.9x10⁻¹⁰ uci/ml</u>	<u>O. Haas</u>
Pb-210	<u>1x10⁻⁷ uci/ml</u>	<u>4/16/85</u>	<u>2.4 x 10⁻⁹</u>	<u>1.1 x 10⁻⁹</u>	<u>3.7x10⁻⁹ uci/ml</u>	<u>J. Jone</u>
Po-210	<u>7x10⁻⁷ uci/ml</u>	<u>4/5-15/85</u>	<u>0.4 x 10⁻⁹</u>	<u>0.7 x 10⁻⁹</u>	<u>2.0x10⁻⁹ uci/ml</u>	<u>J. Jone</u>

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	<u>.001 PPM</u>	_____
Na+	_____	_____	_____	<u>.001 PPM</u>	_____
Cl-	<u>4/2/85</u>	<u>980</u>	_____	<u>.40 PPM</u>	<u>D. Rose</u>
SO ₄	<u>4/3/85</u>	<u>41400</u>	_____	<u>.21 PPM</u>	<u>D. Rose</u>
NO ₃	<u>4/24/85</u>	<u>180</u>	_____	<u>.01 PPM</u>	<u>D. Rose</u>
Fe	_____	_____	_____	<u>.001 PPM</u>	_____
Mn	_____	_____	_____	<u>.01 PPM</u>	_____
As	<u>4/22/85</u>	<u><0.001</u>	_____	<u>.10 PPM</u>	<u>R. McCallister</u>
Se	<u>4/23/85</u>	<u><0.002</u>	_____	<u>.50 PPM</u>	<u>R. McCallister</u>
Cu	_____	_____	_____	<u>.01 PPM</u>	_____
TDS	<u>4/1/85</u>	<u>57200</u>	_____	<u>1.0 PPM</u>	<u>D. Rose</u>
PH	<u>3/20/85</u>	<u>7.3</u>	_____	<u>.10 Units</u>	<u>DLE</u>
Conductivity	<u>3/20/85</u>	<u>45,000</u>	_____	<u>10 umhos</u>	<u>DLE</u>

ATLAS MINERALS

MOAB MILL

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1st Quarter 1985

Approved By:

DB Lasher

EDA Log #:

4469 - 6

DLE
R-2

Well #

Date and Time Sample Was Collected March 20, 1985Location of Sample ATP - 3

Sampling Method Used (Bailed - Pumped)

The Amount of Water to be Removed Prior to Sampling

Name of Sampler

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta-Total		4/18-23/85	22 x 10 ⁻⁹	4 x 10 ⁻⁹		D. Lasher
U-Nat	3x10 ⁻⁵ uci/ml	4/8-16/85	7.91 x 10 ⁻⁹	--	8x10 ⁻¹⁰ uci/ml	B. Tonnin
Ra-226	3x10 ⁻⁸ uci/ml	4/12-24/85	0.3 x 10 ⁻⁹	0.3 x 10 ⁻⁹	4.9x10 ⁻¹⁰ uci/ml	J. Garcia
Th-230	2x10 ⁻⁶ uci/ml	4/8-24/85	0.0 x 10 ⁻⁹	0.7 x 10 ⁻⁹	4.9x10 ⁻¹⁰ uci/ml	O. Haas
Pb-210	1x10 ⁻⁷ uci/ml	3/28- 4/16/85	0.1 x 10 ⁻⁹	0.8 x 10 ⁻⁹	3.7x10 ⁻⁹ uci/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	4/5-15/85	0.0 x 10 ⁻⁹	0.6 x 10 ⁻⁹	2.0x10 ⁻⁹ uci/ml	J. Jones

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+				.001 PPM	
Na+				.001 PPM	
Cl-	4/2/85	550		.40 PPM	D. Rose
SO ₄	4/3/85	256		.21 PPM	D. Rose
NO ₃	4/24/85	0.6		.01 PPM	D. Rose
Fe				.001 PPM	
Mn				.01 PPM	
As	4/22/85	<0.001		.10 PPM	R. McCallister
Se	4/23/85	<0.002		.50 PPM	R. McCallister
Cu				.01 PPM	
TDS	4/1/85	1420		1.0 PPM	D. Rose
PH	3/20/85	8.0		.10 Units	DLE
Conductivity	3/20/85	2400		10 umhos	DLE

ATLAS MINERALS

MOAB MILL

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

1st Quarter 1985

Approved By: DB LasherEDA Log #: 4469 - 7DLE
Ror

Well # _____

Date and Time Sample Was Collected March 20, 1985Location of Sample ATP - 1S

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta - Total		4/18-23/85	960 x 10 ⁻⁹	220 x 10 ⁻⁹		D. Lasher
U-Nat	3x10 ⁻⁵ uci/ml	4/8-16/85	2.08 x 10 ⁻⁹	--	8x10 ⁻¹⁰ uci/ml	B. Tanning
Ra-226	3x10 ⁻⁸ uci/ml	4/12-24/85	1.2 x 10 ⁻⁹	0.7 x 10 ⁻⁹	4.9x10 ⁻¹⁰ uci/ml	J. Garcia
Th-230	2x10 ⁻⁶ uci/ml	4/8-24/85	0.0 x 10 ⁻⁹	2.5 x 10 ⁻⁹	4.9x10 ⁻¹⁰ uci/ml	O. Haas
Pb-210	1x10 ⁻⁷ uci/ml	3/28- 4/16/85	0.2 x 10 ⁻⁹	1.5 x 10 ⁻⁹	3.7x10 ⁻⁹ uci/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	4/5-15/85	0.1 x 10 ⁻⁹	0.6 x 10 ⁻⁹	2.0x10 ⁻⁹ uci/ml	J. Jones

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	.001 PPM	_____
Na+	_____	_____	_____	.001 PPM	_____
Cl-	4/2/85	60,000	_____	.40 PPM	D. Rose
SO ₄	4/3/85	4840	_____	.21 PPM	D. Rose
NO ₃	4/24/85	2.5	_____	.01 PPM	D. Rose
Fe	_____	_____	_____	.001 PPM	_____
Mn	_____	_____	_____	.01 PPM	_____
As	4/22/85	<0.001	_____	.10 PPM	R. McCallister
Se	4/23/85	<0.002	_____	.50 PPM	R. McCallister
Cu	_____	_____	_____	.01 PPM	_____
TDS	4/1/85	110,000	_____	1.0 PPM	D. Rose
PH	3/20/85	7.1	_____	.10 Units	DLE
Conductivity	3/20/85	170,000	_____	10 umhos	DLE

GROUND WATER RESULTS

2nd Qtr. 1985

ATLAS MINERALS

Approved By: D. Lash

MOAB MILL

EDA Log #: 4659 - 1

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

AMENDED REPORT

2nd Quarter 1985Well # _____ Date and Time Sample Was Collected May 23, 1985Location of Sample MW1 - R

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta- Total		6/7-21/85	170×10^{-9}	40×10^{-9}	1.0×10^{-9} uCi/ml	D. Lash
U-Nat	3×10^{-5} uci/ml	6/10 - 19/85	1490×10^{-9}	---	0.2×10^{-9} uCi/ml	B. Tonn
Ra-226	3×10^{-8} uci/ml	6/11 - 20/85	4.1×10^{-9}	0.8×10^{-9}	0.2×10^{-9} uCi/ml	J. Garcia
Th-230	2×10^{-6} uci/ml	6/20 - 28/85	0.0×10^{-9}	2.6×10^{-9}	0.2×10^{-9} uCi/ml	B. Tonn
Pb-210	1×10^{-7} uci/ml	7/10-24/85	1.3×10^{-9}	1.0×10^{-9}	1.0×10^{-9} uCi/ml	J. Jones
Po-210	7×10^{-7} uci/ml	6/14 - 28/85	2.1×10^{-9}	1.5×10^{-9}	0.2×10^{-9} uCi/ml	J. Garcia

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	_____	_____
Na+	_____	_____	_____	_____	_____
Cl-	6/3/85	2300	_____	0.2 mg/l	S. Ritz
SO ₄	6/5/85	9530	_____	0.1 mg/l	S. Ritz
NO ₃	6/19/85	200	_____	0.1 mg/l	S. Ritz
Fe	_____	_____	_____	_____	_____
Mn	_____	_____	_____	_____	_____
As	6/10/85	<0.001	_____	1 µg/l	R. McCallister
Se	6/10/85	<0.001	_____	2 µg/l	R. McCallister
Cu	_____	_____	_____	_____	_____
TDS	6/5/85	20500	_____	10 mg/l	S. Ritz
pH	5/17/85	7.41	_____	_____	DLE
Conductivity	5/17/85	20,000	_____	_____	DLE

ATLAS MINERALS

Approved By: D. Lash

MOAB MILL

EDA Log #: 4659 - 2

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

2nd Quarter 1985

AMENDED REPORT

Well # _____
 Date and Time Sample Was Collected May 23, 1985
 Location of Sample MW2 - R
 Sampling Method Used (Bailed - Pumped)
 The Amount of Water to be Removed Prior to Sampling _____
 Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D. ⁻⁹	Name of Assayer
Gross Beta- Total		6/7-21/85	150 x 10 ⁻⁹	20 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	D. Lash
U-Nat	3x10 ⁻⁵ uci/ml	6/10 - 19/85	1310 x 10 ⁻⁹	---	0.2 x 10 ⁻⁹ uCi/ml	B. Tonn
Ra-226	3x10 ⁻⁸ uci/ml	6/11 - 20/85	8.5 x 10 ⁻⁹	1.5 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garc
Th-230	2x10 ⁻⁶ uci/ml	6/20 - 28/85	5.9 x 10 ⁻⁹	4.6 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	B. Tonn
Pb-210	1x10 ⁻⁷ uci/ml	7/10-24/85 6/14 -	1.1 x 10 ⁻⁹	1.0 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	J. Jone
Po-210	7x10 ⁻⁷ uci/ml	28/85	1.3 x 10 ⁻⁹	1.5 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garc

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+					
Na+					
Cl-	6/3/85	640		0.2 mg/l	S. Ritz
SO ₄	6/5/85	3620		0.1 mg/l	S. Ritz
NO ₃	6/19/85	150		0.1 mg/l	S. Ritz
Fe					
Mn					
As	6/10/85	<0.001		1 uE/l	R. McCallister
Se	6/10/85	<0.001		2 uE/l	R. McCallister
Cu					
TDS	6/5/85	10300		10 mg/l	S. Ritz
	5/17/85	7.62			DLE
Conductivity	5/17/85	7500			DLE

ATLAS MINERALS

Approved By: DLF

MOAB MILL

EDA Log #: 4659 - 7

REGULATORY AFFAIRS DEPARTMENT

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MONITOR WELL REPORTS

DLF
179

2nd Quarter 1985

Well # _____

Date and Time Sample Was Collected May 23, 1985Location of Sample ATP - 3

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta- Total		6/7-21/85	5.9×10^{-9}	3.1×10^{-9}	1.0×10^{-9} uCi/ml	D. Lashe
U-Nat	3×10^{-5} uci/ml	6/10 - 19/85	5.83×10^{-9}	---	0.2×10^{-9} uCi/ml	B. Tonni
Ra-226	3×10^{-8} uci/ml	6/11 - 20/85	0.1×10^{-9}	0.3×10^{-9}	0.2×10^{-9} uCi/ml	J. Garc
Th-230	2×10^{-6} uci/ml	6/20 - 28/85	0.0×10^{-9}	0.3×10^{-9}	0.2×10^{-9} uCi/ml	B. Tonni
Pb-210	1×10^{-7} uci/ml	6/2-19/85	0.7×10^{-9}	0.8×10^{-9}	1.0×10^{-9} uCi/ml	J. Jones
Po-210	7×10^{-7} uci/ml	6/14 - 28/85	0.0×10^{-9}	0.5×10^{-9}	0.2×10^{-9} uCi/ml	J. Garc

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	_____	_____
Na+	_____	_____	_____	_____	_____
Cl-	6/3/85	520	_____	0.2 mg/l	S. Ritz
SO ₄	6/5/85	235	_____	0.1 mg/l	S. Ritz
NO ₃	6/19/85	0.4	_____	0.1 mg/l	S. Ritz
Fe	_____	_____	_____	_____	_____
Mn	_____	_____	_____	_____	_____
As	6/10/85	<0.001	_____	1 ug/l	R. McCallister
Se	6/10/85	<0.001	_____	2 ug/l	R. McCallister
Cu	_____	_____	_____	_____	_____
TDS	6/5/85	1480	_____	10 mg/l	S. Ritz
PH	5/22/85	7.7	_____	_____	DLF
Conductivity	5/22/85	2800	_____	_____	DLF

ATLAS MINERALS

Approved By: _____

MOAB MILL

EDA Log #: 4659 - 6

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

2nd Quarter 1985

Well # _____
 Date and Time Sample Was Collected May 23, 1985
 Location of Sample ATP2 - S
 Sampling Method Used (Bailed - Pumped)
 The Amount of Water to be Removed Prior to Sampling _____
 Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D. 10^{-9} uCi/ml	Name of Assayer
Gross Beta- Total		6/7-21/85	980 $\times 10^{-9}$	110 $\times 10^{-9}$	1.0 $\times 10^{-9}$ uCi/ml	D. Lashe
U-Nat	3x10 ⁻⁵ uci/ml	6/10 - 19/85	8780 $\times 10^{-9}$	---	0.2 $\times 10^{-9}$ uCi/ml	B. Tonni
Ra-226	3x10 ⁻⁸ uci/ml	6/11 - 20/85	1.9 $\times 10^{-9}$	0.7 $\times 10^{-9}$	0.2 $\times 10^{-9}$ uCi/ml	J. Garc
Th-230	2x10 ⁻⁶ uci/ml	6/20 - 28/85	11 $\times 10^{-9}$	6 $\times 10^{-9}$	0.2 $\times 10^{-9}$ uCi/ml	B. Tonni
Pb-210	1x10 ⁻⁷ uci/ml	6/2-19/85	5.6 $\times 10^{-9}$	1.0 $\times 10^{-9}$	1.0 $\times 10^{-9}$ uCi/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	6/14 - 28/85	0.8 $\times 10^{-9}$	1.3 $\times 10^{-9}$	0.2 $\times 10^{-9}$ uCi/ml	J. Garc

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	_____	_____
Na+	_____	_____	_____	_____	_____
Cl-	6/3/85	930	_____	0.2 mg/l	S. Ritz
SO ₄	6/5/85	38100	_____	0.1 mg/l	S. Ritz
NO ₃	6/19/85	300	_____	0.1 mg/l	S. Ritz
Fe	_____	_____	_____	_____	_____
Mn	_____	_____	_____	_____	_____
As	6/10/85	<0.001	_____	1 μ g/l	R. McCallister
Se	6/10/85	<0.001	_____	2 μ g/l	R. McCallister
Cu	_____	_____	_____	_____	_____
TDS	6/5/85	55800	_____	10 mg/l	S. Ritz
PH	5/17/85	7.20	_____	_____	DLE
Conductivity	5/17/85	49,000	_____	_____	DLE

ATLAS MINERALS

Approved By: DL

MOAB MILL

EDA Log #: 4659 - 5

REGULATORY AFFAIRS DEPARTMENT

MONITOR WELL REPORTS

2nd Quarter 1985

Well # _____

Date and Time Sample Was Collected May 23, 1985Location of Sample ATP2-D

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta- Total		6/7-21/85	730 x 10 ⁻⁹	100 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	D. Lashe
U-Nat	3x10 ⁻⁵ uci/ml	6/10 - 19/85	6080 x 10 ⁻⁹	---	0.2 x 10 ⁻⁹ uCi/ml	B. Tonnir
Ra-226	3x10 ⁻⁸ uci/ml	6/11 - 20/85	1.9 x 10 ⁻⁹	0.7 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garcia
Th-230	2x10 ⁻⁶ uci/ml	6/20 - 28/85	14 x 10 ⁻⁹	6 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	B. Tonnir
Pb-210	1x10 ⁻⁷ uci/ml	6/2-19/85	8.1 x 10 ⁻⁹	1.3 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	6/14 - 28/85	0.0 x 10 ⁻⁹	1.1 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garcia

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	_____	_____
Na+	_____	_____	_____	_____	_____
Cl-	6/3/85	1400	_____	0.2 mg/l	S. Ritz
SO ₄	6/5/85	32000	_____	0.1 mg/l	S. Ritz
NO ₃	6/19/85	140	_____	0.1 mg/l	S. Ritz
Fe	_____	_____	_____	_____	_____
Mn	_____	_____	_____	_____	_____
As	6/10/85	<0.001	_____	1 ug/l	R. McCallister
Se	6/10/85	<0.001	_____	2 ug/l	R. McCallister
Cu	_____	_____	_____	_____	_____
TDS	6/5/85	47310	_____	10 mg/l	S. Ritz
PH	5/17/85	7.37	_____	_____	DLE
Conductivity	5/17/85	40,000	_____	_____	DLE

ATLAS MINERALS

Approved By: D. Lashe

MOAB MILL

EDA Log #: 4659 - 3

REGULATORY AFFAIRS DEPARTMENT

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MONITOR WELL REPORTS

DLE
P93

2nd Quarter 1985

Well # _____

Date and Time Sample Was Collected May 23, 1985Location of Sample MW - 3

Sampling Method Used (Bailed - Pumped) _____

The Amount of Water to be Removed Prior to Sampling _____

Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D. ⁻⁹	Name of Assayer
Gross Beta- Total		6/7-21/85	890 x 10 ⁻⁹	90 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	D. Lashe
U-Nat	3x10 ⁻⁵ uci/ml	6/10 - 19/85	4600 x 10 ⁻⁹	---	0.2 x 10 ⁻⁹ uCi/ml	B. Tonni
Ra-226	3x10 ⁻⁸ uci/ml	6/11 - 20/85	0.2 x 10 ⁻⁹	0.2 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garci
Th-230	2x10 ⁻⁶ uci/ml	6/20 - 28/85	2.9 x 10 ⁻⁹	3.8 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	B. Tonni
Pb-210	1x10 ⁻⁷ uci/ml	6/2-19/85	2.7 x 10 ⁻⁹	0.9 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	6/14 - 28/85	0.0 x 10 ⁻⁹	1.1 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garci

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	_____	_____
Na+	_____	_____	_____	_____	_____
Cl-	6/3/85	1800	_____	0.2 mg/l	S. Ritz
SO ₄	6/5/85	20400	_____	0.1 mg/l	S. Ritz
NO ₃	6/19/85	110	_____	0.1 mg/l	S. Ritz
Fe	_____	_____	_____	_____	_____
Mn	_____	_____	_____	_____	_____
As	6/10/85	<0.001	_____	1 ug/l	R. McCallister
Se	6/10/85	<0.001	_____	2 ug/l	R. McCallister
Cu	_____	_____	_____	_____	_____
TDS	6/5/85	32400	_____	10 mg/l	S. Ritz
PH	5/22/85	7.3	_____	_____	DLE
Conductivity	5/22/85	30,000	_____	_____	DLE

ATLAS MINERALS

Approved By: DR

MOAB MILL

EDA Log #: 4659 - 4

REGULATORY AFFAIRS DEPARTMENT

Rec 7-8-85

MONITOR WELL REPORTS

DLE
847

2nd Quarter 1985

Well # _____
 Date and Time Sample Was Collected May 23, 1985
 Location of Sample ATP - 1S
 Sampling Method Used (Bailed - Pumped)
 The Amount of Water to be Removed Prior to Sampling _____
 Name of Sampler _____

Radionuclide	M.P.C.	Date of Analysis	Concentration uci/ml	Error Estimate	L.L.D.	Name of Assayer
Gross Beta- Total		6/7-21/85	700 x 10 ⁻⁹	220 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	D. Lashe
U-Nat	3x10 ⁻⁵ uci/ml	6/10 - 19/85	3.55 x 10 ⁻⁹	---	0.2 x 10 ⁻⁹ uCi/ml	B. Tonni
Ra-226	3x10 ⁻⁸ uci/ml	6/11 - 20/85	0.2 x 10 ⁻⁹	0.4 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garci
Th-230	2x10 ⁻⁶ uci/ml	6/20 - 28/85	0.0 x 10 ⁻⁹	2.6 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	B. Tonni
Pb-210	1x10 ⁻⁷ uci/ml	6/2-19/85	0.0 x 10 ⁻⁹	1.5 x 10 ⁻⁹	1.0 x 10 ⁻⁹ uCi/ml	J. Jones
Po-210	7x10 ⁻⁷ uci/ml	6/14 - 28/85	0.0 x 10 ⁻⁹	1.1 x 10 ⁻⁹	0.2 x 10 ⁻⁹ uCi/ml	J. Garci

Common Ion and Trace Metals

	Date of Analysis	Concentration	Error Estimate	L.L.D.	Name of Assayer
K+	_____	_____	_____	_____	_____
Na+	_____	_____	_____	_____	_____
Cl-	6/3/85	12500	_____	0.2 mg/l	S. Ritz
SO ₄	6/5/85	4810	_____	0.1 mg/l	S. Ritz
NO ₃	6/19/85	0.3	_____	0.1 mg/l	S. Ritz
Fe	_____	_____	_____	_____	_____
Mn	_____	_____	_____	_____	_____
As	6/10/85	<0.001	_____	1 ug/l	R. McCallister
Se	6/10/85	<0.001	_____	2 ug/l	R. McCallister
Cu	_____	_____	_____	_____	_____
TDS	6/5/85	115000	_____	10 mg/l	S. Ritz
PH	5/22/85	6.8	_____	_____	DLE
Conductivity	5/22/85	190,000	_____	_____	DLE