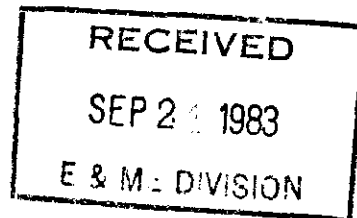


HUNT OIL COMPANY

MINERALS DIVISION

P.O. Box 1317
DENVER, COLORADO 80201



SUITE 2400, 1125 SEVENTEENTH STREET
DENVER, COLORADO 80202

September 19, 1983

TELEPHONE:
(303) 534-1010

Mr. John Deymonaz
AMAX Exploration, Inc.
Geothermal Branch
1707 Cole Blvd.
Golden, CO 80401

Dear John:

Enclosed are the water geochemistry data you requested for intermediate depth temperature gradient wells #51A, #59 and #62A from the Minersville area, Beaver and Iron Counties, Utah.

Give me a call if you have any questions.

Very truly yours,

A handwritten signature in cursive script, appearing to read "David S. Thiede".

David S. Thiede

Enclosures

DST/pt

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1009
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,009'-1,034'
Flow Rate (gal/min)	15-20
Sampled By	Hunt Oil Company
Date Sampled	4/14/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	68
pH Field	7.0
pH Lab	7.6
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	817
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	75
Atomic Absorption (nondilute sample)	161
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	161
Cations (mg/l)	
Na	116
K	8
Ca	173
Mg	30.1
Li	.052
B	.12
As	.020
Sr	2.70
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	115
F	1.1
SO ₄	110
HCO ₃	100
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	30
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	.006 mg/l; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1009
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,009'-1,034'
Flow Rate (gal/min)	15-20
Sampled By	Hunt Oil Company
Date Sampled	4/14/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	68
pH Field	7.0
pH Lab	7.6
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	817
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	75
Atomic Absorption (nondilute sample)	161
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	161
Cations (mg/l)	
Na	116
K	8
Ca	173
Mg	30.1
Li	.052
B	.12
As	.020
Sr	2.70
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	115
F	1.1
SO ₄	110
HCO ₃	100
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	30
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	.006 mg/l; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1130
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,100'-1,130'
Flow Rate (gal/min)	60-75
Sampled By	Hunt Oil Company
Date Sampled	4/15/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	80
pH Field	7.0
pH Lab	7.7
TDS (mg/l)	420
Conductance (micromhos/cm @ 25°C)	633
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	82.5
Atomic Absorption (nondilute sample)	77
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	82.5
Cations (mg/l)	
Na	94
K	5.9
Ca	52.1
Mg	4.8
Li	.025
B	.60
As	.010
Sr	.79
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	145
F	1.10
SO ₄	110
HCO ₃ ⁴	87
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	9.8
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	.002 mg/l; cement 830'-1,034'; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1174
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,174'
Flow Rate (gal/min)	100
Sampled By	Hunt Oil Company
Date Sampled	4/16/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	90
pH Field	6.4
pH Lab	7.7
TDS (mg/l)	585
Conductance (micromhos/cm @ 25°C)	669
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	97.5
Atomic Absorption (nondilute sample)	63
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	97.5
Cations (mg/l)	
Na	101
K	6.9
Ca	34.5
Mg	1.9
Li	.028
B	less than .1
As	.009
Sr	.46
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	135
F	1.30
SO ₄	95
HCO ₃	83
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	4.6
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	.008 mg/l; cement 930'-1,134'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1194
Location	NE/4SW/4NE/4,Sec.10,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,194'
Flow Rate (gal/min)	50
Sampled By	Hunt Oil Company
Date Sampled	4/16/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	92
pH Field	8.0
pH Lab	9.8
TDS (mg/l)	2,645
Conductance (micromhos/cm @ 25°C)	965
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	71
Atomic Absorption (nondilute sample)	73
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	73
Cations (mg/l)	
Na	108
K	9.3
Ca	187
Mg	.67
Li	.022
B	.40
As	less than .001
Sr	2.70
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	105
F	.75
SO ₄	70
HCO ₃	less than 2
CO ₃	140
NH ₃ (total dissolved ammonia species)	110
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002; cement 1,074'-1,174'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1234
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,234'
Flow Rate (gal/min)	45
Sampled By	Hunt Oil Company
Date Sampled	4/17/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	100
pH Field	7.6
pH Lab	9.9
TDS (mg/l)	380
Conductance (micromhos/cm @ 25°C)	604
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	82.5
Atomic Absorption (nondilute sample)	70
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	82.5
Cations (mg/l)	
Na	92
K	4.7
Ca	23.1
Mg	1.58
Li	.018
B	less than .1
As	.003
Sr	.47
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	125
F	1.0
SO ₄	100
HCO ₃	less than 2
CO ₃	56
NH ₃ (total dissolved ammonia species)	1.2
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; cement 1,114'-1,194'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1268
Location	NE/4SW/4NE/4,Sec.10,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,268'
Flow Rate (gal/min)	50
Sampled By	Hunt Oil Company
Date Sampled	4/20/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/20/82
Water Temperature °F	100
pH Field	9.5
pH Lab	10.2
TDS (mg/l)	665
Conductance (micromhos/cm @ 25°C)	642
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	56.2
Atomic Absorption (nondilute sample)	58
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	58
Cations (mg/l)	
Na	91
K	4.3
Ca	105
Mg	1.6
Li	.023
B	less than .1
As	.005
Sr	.42
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	85
F	.79
SO ₄	28
HCO ₃	less than 2
CO ₃	53
NH ₃ (total dissolved ammonia species)	14
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	.002 mg/l; cement 1,094'-1,234'; drilled with air & foam (polyackrylamyde & surfactan

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1311
Location	NE/4SW/4NE/4,Sec.10,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,311'
Flow Rate (gal/min)	40
Sampled By	Hunt Oil Company
Date Sampled	4/21/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/21/82
Water Temperature °F	100
pH Field	8.0
pH Lab	8.6
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	860
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	97.5
Atomic Absorption (nondilute sample)	75
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	97.5
Cations (mg/l)	
Na	140
K	13
Ca	120
Mg	5.3
Li	.31
B	.3
As	less than .001
Sr	1.7
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	160
F	.98
SO ₄	110
HCO ₃	63
CO ₃	8
NH ₃ (total dissolved ammonia species)	40
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	.001 mg/l; cement 1,118'-1,268'; drilled with air & foam (polyackrylamyde & surfacta

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1511
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,511'
Flow Rate (gal/min)	40-50
Sampled By	Hunt Oil Company
Date Sampled	4/22/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/21/82
Water Temperature °F	98
pH Field	8
pH Lab	9.4
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	730
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	62.5
Atomic Absorption (nondilute sample)	53
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	62.5
Cations (mg/l)	
Na	110
K	6
Ca	94
Mg	2
Li	.03
B	.1
As	less than .001
Sr	.82
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	100
F	.81
SO ₄	120
HCO ₃	3
CO ₃	66
NH ₃ (total dissolved ammonia species)	42
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	.003 mg/l; cement 1,156'-1,311'; drilled with air & foam (polyackrylamyde & surfactan

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1551
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,551'
Flow Rate (gal/min)	25
Sampled By	Hunt Oil Company
Date Sampled	4/24/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/21/82
Water Temperature °F	92
pH Field	greater than 9.5
pH Lab	11.6
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	1,950
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	20
Atomic Absorption (nondilute sample)	19
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	20
Cations (mg/l)	
Na	110
K	10
Ca	350
Mg	1.3
Li	.04
B	less than .1
As	less than .001
Sr	1.9
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	145
F	.28
SO ₄	4
HCO ₃	less than 2
CO ₃	445
NH ₃ (total dissolved ammonia species)	7.3
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .001 mg/l; cement with CaCl 1,180'-1,551'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1820
Location	NE/4SW/4NE/4,Sec.10,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,820'
Flow Rate (gal/min)	60
Sampled By	Hunt Oil Company
Date Sampled	5/13/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/2/82
Water Temperature °F	115
pH Field	8
pH Lab	10.8
TDS (mg/l)	1,480
Conductance (micromhos/cm @ 25°C)	789
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	70
Atomic Absorption (nondilute sample)	101
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	101
Cations (mg/l)	
Na	140
K	7.8
Ca	180
Mg	5.7
Li	.03
B	less than .1
As	less than .1
Sr	.86
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	44
F	.57
SO ₄	55
HCO ₃	less than 2
CO ₃	20
NH ₃ (total dissolved ammonia species)	42
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .005 mg/l; casing to 1,701'; cement 1,664'-1,721'; drilled with air & foam (polyackrylamyde)

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1845
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,828' - 1,845'
Flow Rate (gal/min)	40
Sampled By	Hunt Oil Company
Date Sampled	5/22/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/2/82
Water Temperature °F	125
pH Field	5.5
pH Lab	6.8
TDS (mg/l)	340
Conductance (micromhos/cm @ 25°C)	569
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	75
Atomic Absorption (nondilute sample)	85
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	85
Cations (mg/l)	
Na	99
K	2.2
Ca	18
Mg	1.2
Li	.02
B	less than .1
As	.003
Sr	.09
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	34
F	1.13
SO ₄	70
HCO ₃	83
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	.93
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .005 mg/l; casing to 1,701'; cement 1,680'-1,770'; 1,820'-1,828'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1865
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,847' - 1,867'
Flow Rate (gal/min)	100
Sampled By	Hunt Oil Company
Date Sampled	5/24/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/2/82
Water Temperature °F	119
pH Field	5.2
pH Lab	6.8
TDS (mg/l)	340
Conductance (micromhos/cm @ 25°C)	575
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	75
Atomic Absorption (nondilute sample)	92
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	92
Cations (mg/l)	
Na	99
K	1.7
Ca	35
Mg	2.4
Li	.03
B	less than .1
As	.003
Sr	.12
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	36
F	1.05
SO ₄	65
HCO ₃	63
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	2.4
H ₂ S (total dissolved sulfide)	.8
Other Data	
Hg	less than .005 mg/l; casing 1,701'; cement 1,701'-1,847'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-1925
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,867' - 1,928'
Flow Rate (gal/min)	100
Sampled By	Hunt Oil Company
Date Sampled	5/26/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/2/82
Water Temperature °F	130
pH Field	5.5
pH Lab	7.1
TDS (mg/l)	320
Conductance (micromhos/cm @ 25°C)	515
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	70
Atomic Absorption (nondilute sample)	90
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	90
Cations (mg/l)	
Na	90
K	1.2
Ca	15
Mg	1.9
Li	.02
B	less than .1
As	.003
Sr	.08
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	32
F	1.05
SO ₄	60
HCO ₃	40
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	1.5
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .005 mg/l; casing to 1,701'; cement 1,701'-1,867'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-2080
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	1,875' - 2,080'
Flow Rate (gal/min)	140
Sampled By	Hunt Oil Company
Date Sampled	5/31/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/2/82
Water Temperature °F	126
pH Field	5.3
pH Lab	8.5
TDS (mg/l)	620
Conductance (micromhos/cm @ 25°C)	625
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	60
Atomic Absorption (nondilute sample)	69
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	69
Cations (mg/l)	
Na	100
K	2.3
Ca	17
Mg	.61
Li	.02
B	less than .1
As	.002
Sr	.15
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	36
F	1.05
SO ₄	40
HCO ₃	80
CO ₃	7
NH ₃ (total dissolved ammonia species)	21
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .005 mg/l; casing to 1,701'; partial cement 1,875'-1,964'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-2108
Location	NE/4SW/4NE/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	2,080' - 2,108'
Flow Rate (gal/min)	180
Sampled By	Hunt Oil Company
Date Sampled	6/3/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/28/82
Water Temperature °F	126
pH Field	5.6
pH Lab	8.6
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	664
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	45
Atomic Absorption (nondilute sample)	62
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	62
Cations (mg/l)	
Na	100
K	2.3
Ca	25
Mg	1.6
Li	.03
B	less than .1
As	.002
Sr	.20
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	40
F	.96
SO ₄	85
HCO ₃	53
CO ₃	10
NH ₃ (total dissolved ammonia species)	115
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .001 mg/l; casing to 1,701'; partial cement 1,860'-2,080'; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	51-A
Sample Number	MU-51A-2288
Location	NE/4SW/4NE/4, Sec.10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 51A
Depth of Flow	2,080' - 2,288'
Flow Rate (gal/min)	180
Sampled By	Hunt Oil Company
Date Sampled	6/10/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	7/28/82
Water Temperature °F	122
pH Field	5.1
pH Lab	7.7
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	555
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	40
Atomic Absorption (nondilute sample)	56
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	56
Cations (mg/l)	
Na	96
K	1.9
Ca	10
Mg	.73
Li	.02
B	less than .1
As	.002
Sr	.059
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	38
F	.92
SO ₄	65
HCO ₃	60
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	4.1
H ₂ S (total dissolved sulfide)	less than .1
Other Data	
Hg	less than .001 mg/l

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-165
Location	NW/4NW/4SE/4,Sec.3,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	165'
Flow Rate (gal/min)	15
Sampled By	Hunt Oil Company
Date Sampled	3/12/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	4/13/82
Water Temperature °F	64
pH Field	5.9
pH Lab	8.2
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	700
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	40
Atomic Absorption (nondilute sample)	48
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	48
Cations (mg/l)	
Na	67
K	3.2
Ca	111
Mg	15
Li	.03
B	less than .1
As	.001
Sr	.72
Al	less than .1
Fe	less than .1
Mn	.02
Anions (mg/l)	
Cl	180
F	.23
SO ₄	75
HCO ₃	225
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	4.3
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-900
Location	NW/4NW/4SE/4,Sec.3,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	900'
Flow Rate (gal/min)	20
Sampled By	Hunt Oil Company
Date Sampled	3/15/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	4/13/82
Water Temperature °F	75
pH Field	5.3
pH Lab	8.0
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	470
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	55
Atomic Absorption (nondilute sample)	51
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	55
Cations (mg/l)	
Na	85
K	3.2
Ca	22
Mg	2.7
Li	.03
B	less than .1
As	.001
Sr	.17
Al	less than .1
Fe	.8
Mn	less than .01
Anions (mg/l)	
Cl	60
F	.96
SO ₄	95
HCO ₃	100
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	5.9
H ₂ S (total dissolved sulfide)	11
Other Data	
Hg	less than .002 mg/l; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-1293
Location	NW/4NW/4SE/4,Sec.3,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	1,293'
Flow Rate (gal/min)	125
Sampled By	Hunt Oil Company
Date Sampled	3/16/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	4/13/82
Water Temperature °F	108
pH Field	8
pH Lab	10.8
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	580
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	75
Atomic Absorption (nondilute sample)	76
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	76
Cations (mg/l)	
Na	91
K	3.6
Ca	51
Mg	1.93
Li	.03
B	less than .1
As	.001
Sr	.26
Al	.1
Fe	less than .1
Mn	less than .1
Anions (mg/l)	
Cl	48
F	.84
SO ₄	95
HCO ₃	less than 2
CO ₃	82
NH ₃ (total dissolved ammonia species)	2.2
H ₂ S (total dissolved sulfide)	10
Other Data	
Hg	less than .002 mg/l; cement 830'-953'; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-1593
Location	NW/4NW/4SE/4,Sec.3,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	1,593'
Flow Rate (gal/min)	30
Sampled By	Hunt Oil Company
Date Sampled	3/18/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	4/13/82
Water Temperature °F	98
pH Field	5.3
pH Lab	8.2
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	581
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	50
Atomic Absorption (nondilute sample)	59
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	59
Cations (mg/l)	
Na	100
K	5.2
Ca	35
Mg	7.1
Li	.077
B	less than .1
As	.003
Sr	.26
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	36
F	.88
SO ₄	85
HCO ₃	110
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	8.1
H ₂ S (total dissolved sulfide)	12
Other Data	
Hg	less than .002 mg/l; cement 1,293'-1,313'; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-2193
Location	NW/4NW/4SE/4,Sec.3,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	1,993'
Flow Rate (gal/min)	20-30
Sampled By	Hunt Oil Company
Date Sampled	3/24/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/4/82
Water Temperature °F	88
pH Field	5.3
pH Lab	8.1
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	580
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	120
Atomic Absorption (nondilute sample)	104
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	120
Cations (mg/l)	
Na	95
K	5.8
Ca	40
Mg	31
Li	.19
B	.4
As	.012
Sr	.39
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	65
F	.92
SO ₄	90
HCO ₃	100
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	8.2
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; cement 1,400'-1,593'; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-2373A
Location	NW/4NW/4SE/4,Sec.3,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	2,373'
Flow Rate (gal/min)	20
Sampled By	Hunt Oil Company
Date Sampled	3/27/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/4/82
Water Temperature °F	90
pH Field	5.3
pH Lab	8.1
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	555
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	65
Atomic Absorption (nondilute sample)	93
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	93
Cations (mg/l)	
Na	91
K	7.2
Ca	45
Mg	18
Li	.05
B	.1
As	.019
Sr	.3
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	46
F	.92
SO ₄	65
HCO ₃	105
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	2.8
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; cement 1,933'-2,053'; drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	59
Sample Number	MU-59-2373B
Location	NW/4NW/4SE/4, Sec. 3, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 59
Depth of Flow	2,373'
Flow Rate (gal/min)	20
Sampled By	Hunt Oil Company
Date Sampled	4/1/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/4/82
Water Temperature °F	91
pH Field	greater than 9.5
pH Lab	12.1
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	3,120
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	
Atomic Absorption (nondilute sample)	2
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	2
Cations (mg/l)	
N	102
K	17
Ca	690
Mg	.17
Li	.05
B	less than .1
As	.004
Sr	1.9
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	55
F	.2
SO ₄	less than 2
HCO ₃	less than 2
CO ₃	1,000
NH ₃ (total dissolved ammonia species)	5.9
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; cemented intervals 2,060'-2,358', 2,368'-2,373'(TD); drilled with air & foam (polyackrylamyde & surfactant)

WATER CHEMISTRY DATA

Map Designation	62-A
Sample Number	MU-62A-600
Location	NW/4SW/4NW/4, Sec. 10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 62A
Depth of Flow	600'
Flow Rate (gal/min)	0.5
Sampled By	Hunt Oil Company
Date Sampled	3/27/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/4/82
Water Temperature °F	60
pH Field	8.0
pH Lab	12.0
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	3,050
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	25
Atomic Absorption (nondilute sample)	49
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	49
Cations (mg/l)	
Na	68
K	69
Ca	730
Mg	4.1
Li	.05
B	less than .1
As	.007
Sr	4.3
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	355
F	.29
SO ₄	140
HCO ₃	less than 2
CO ₃	1,000
NH ₃ (total dissolved ammonia species)	2.4
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; cement 315'-580'; hole drilled with air & foam

WATER CHEMISTRY DATA

Map Designation	62-A
Sample Number	MU-62A-980
Location	NW/4SW/4NW/4,Sec.10,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 62A
Depth of Flow	980'
Flow Rate (gal/min)	60
Sampled By	Hunt Oil Company
Date Sampled	4/14/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/28/82
Water Temperature °F	82
pH Field	5.3
pH Lab	7.7
TDS (mg/l)	525
Conductance (micromhos/cm @ 25°C)	773
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	71.3
Atomic Absorption (nondilute sample)	73
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	73
Cations (mg/l)	
Na	81
K	8.5
Ca	79.6
Mg	2.7
Li	.02
B	less than .1
As	.004
Sr	.78
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	85
F	.24
SO ₄	210
HCO ₃	83
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	.18
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; casing to 950'; drilled with air

WATER CHEMISTRY DATA

Map Designation	62-A
Sample Number	MU-62A-1155
Location	NW/4SW/4NW/4, Sec.10, T31S, R11W, SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 62A
Depth of Flow	1,155'
Flow Rate (gal/min)	60
Sampled By	Hunt Oil Company
Date Sampled	4/20/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/28/82
Water Temperature °F	82
pH Field	5.3
pH Lab	7.9
TDS (mg/l)	515
Conductance (micromhos/cm @ 25°C)	776
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	62.5
Atomic Absorption (nondilute sample)	62
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	62.5
Cations (mg/l)	
Na	76
K	8.2
Ca	83.4
Mg	2.2
Li	.019
B	less than .1
As	.004
Sr	.78
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	60
F	.28
SO ₄	190
HCO ₃	87
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	.13
H ₂ S (total dissolved sulfide)	
Other Data	
Hg	less than .002 mg/l; cement 945'-995'; hole drilled with air only, no additives; casing to 950'

WATER CHEMISTRY DATA

Map Designation	62-A
Sample Number	MU-62A-1490
Location	NW/4SW/4NW/4,Sec.10,T31S,R11W,SLM
Area	Escalante Desert-Black Mountains Beaver & Iron Counties, UT
Source of Data	This report
Source of Water	Air lift from gradient well 62A
Depth of Flow	1,490'
Flow Rate (gal/min)	60
Sampled By	Hunt Oil Company
Date Sampled	4/23/82
Analyzed By	Skyline Laboratories, Inc.
Date of Analysis	5/21/82
Water Temperature °F	84
pH Field	5.3
pH Lab	8.0
TDS (mg/l)	
Conductance (micromhos/cm @ 25°C)	770
SiO ₂ Analysis (mg/l)	
Atomic Absorption (dilute sample)	100
Atomic Absorption (nondilute sample)	73
Colorimetric (dilute sample)	
Colorimetric (nondilute sample)	
SiO ₂ Selected Value	100
Cations (mg/l)	
Na	82
K	8.1
Ca	110
Mg	3.1
Li	.03
B	.1
As	.007
Sr	.86
Al	
Fe	
Mn	
Anions (mg/l)	
Cl	90
F	.33
SO ₄	170
HCO ₃	80
CO ₃	less than 2
NH ₃ (total dissolved ammonia species)	.4
H ₂ S (total dissolved sulfide)	4.8
Other Data	
Hg	less than .001 mg/l; cement from 908'- 1,355'; hole drilled with air only, no additives; casing to 950'.

GEOHERMAL LISTING
MILFORD UTAH RECON 1976

W10178 LAMDREAU CW SWSW 2 T30S R13W		W10121 THERMO HS NWNE 28 T30S R12W		W10122 THERMO HS 67C NWNE 28 T30S R12W		W10123 THERMO HS 74.5C NWNE 28 T30S R12W		W10124 THERMO NORTH HS 69C SENE 21 T30S R12W	
LAT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LONG	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STATE	UT	UT	UT	UT	UT	UT	UT	UT	UT
COUNTY	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER
TEMP(C)	15.5	83	67	74.5	69				
FLOW(GPM)		10	20	20	5				
PH	7.9	6.9	6.7	6.5	7.4				
CL	25.	210.	210.	200.	200.				
F	.8	6.8	6.8	6.4	6.4				
SD4	79.	450.	510.	500.	510.				
HCO3	158.	289.	298.	288.	300.				
CO3	0	0	0	0	0				
SI02	58.	110.	110.	110.	105.				
NA	100.	380.	390.	380.	380.				
K	2.	51.	54.	50.	53.				
CA	25.	90.	90.	90.	100.				
MG	5.2	10.	10.	10.	5.				
LI	0	1.3	1.3	1.3	1.3				
UH	0	0	0	0	0				
CU									
d	.6	1.	1.	1.	1.1				
NO									
NH3	0	.19	.18	.19	.15				
TDS	453.6	1599.3	1681.3	1636.9	1662.0				
TSI02	58	143	143	143	140				
TNA/K	51	221	225	218	226				
TNA-K-CA	45	198	200	197	199				
CL/F	31.3	30.9	30.9	31.3	31.3				
CL/SD4	0.3	0.5	0.4	0.4	0.4				
CL/HCO3	0.2	0.7	0.7	0.7	0.7				
CL/LI	0.0	161.5	161.5	153.8	153.8				
CL/CU	41.7	210.0	210.0	200.0	181.8				

GEOHERMAL LISTING
MILFORD UTAH RECON

1976

GEOTHERMAL LISTING
MILFORD UTAH RECDN

1976

	W10284 OLD RAMBLER HILL CW SESE 4 T31S R12W	W10285A GOVERNMENT CW NENE 14 T32S R13W	W10423 CORAL CW NWNE 23 T30S R13W	W10428 NWNE 19 WW NWNE 19 T30S R10W	W10378 BLUE KNOLL CW NWNWNW 23 T31S R13W
LAT	0.0000	0.0000	0.0000	0.0000	0.0000
LONG	0.0000	0.0000	0.0000	0.0000	0.0000
STATE	UT	UT	UT	UT	UT
COUNTY	IRON	IRON	BEAVER	BEAVER	IRON
TEMP(C)	17	14.5	14	20.5	12.5
FLOW(GPM)					
PH	7.98	7.58	7.71	7.92	7.65
CL	58.	43.	220.	30.	300.
F	.5	.5	.5	.4	.5
SO4	130.	250.	130.	51.	900.
HCO3	104.	218.	155.	134.	184.
CO3	0	0	0	0	0
SI02	72.	36.	48.	62.	52.
NA	58.	50.	91.	37.	220.
K	7.5	5.	6.5	6.	7.
CA	59.	110.	110.	39.	200.
MG	14.	47.	49.	8.7	140.
LI	0	0	.1	0	.1
UH	0	0	0	0	0
CU			.7	.4	.6
B	.3	0	0	0	0
MO			0	0	0
NH3	0	0	810.8	368.5	2004.2
TDS	503.3	759.5			
TSI02	69	37	50	62	53
TNA/K	216	184	148	248	80
TNA-K-CA	61	37	49	58	48
CL/F	116.0	86.0	440.0	75.0	600.0
CL/SD4	0.4	0.2	1.7	0.6	0.3
CL/HCO3	0.6	0.2	1.4	0.2	1.6
CL/LI	0.0	0.0	2200.0	0.0	3000.0
CL/CU	193.3	0.0	314.3	75.0	500.0

GEOHERMAL LISTING
MILFORD UTAH RECON

1976

	W10271 MARSHALL CW NW 23 T31S R11W	W10272 STEWART CS NENW 26 T30S R9W	W10273 SEC 34 CW NWNW 34 T29S R12W	W10274 SEC 6 CW SE 6 T31S R13W
LAT	0.0000	0.0000	0.0000	0.0000
LONG	0.0000	0.0000	0.0000	0.0000
STATE	UT	UT	UT	UT
COUNTY	BEAVER	BEAVER	BEAVER	IRON
TEMP(C)	14	11	16	14
FLOW(GPM)		1		
PH	7.59	7.	8.	7.72
CL	35.	59.	35.	100.
F	.2	.4	.5	.6
SO4	9.	25.	44.	140.
HCO3	164.	184.	340.	168.
CO3	0	0	0	0
SI02	48.	47.	57.	35.
NA	29.	32.	40.	55.
K	3.1	3.6	3.	5.
CA	44.	57.	43.	78.
MG	13.	19.	15.	33.
LI	0	0	0	0
DH	0	0	0	0
CU				
B	0	0	.7	.3
MO			0	0
NH3	0	0		
TDS	345.3	427.0	578.2	614.9
TSI02	50	49	58	36
TNA/K	192	198	152	173
TNA-K-CA	36	36	38	44
CL/F	175.0	147.5	70.0	166.7
CL/SO4	3.9	2.4	0.8	0.7
CL/HCO3	0.2	0.3	0.1	0.6
CL/LI	0.0	0.0	0.0	0.0
CL/CU	0.0	0.0	50.0	333.3

GEOHERMAL LISTING
MILFORD UTAH RECDN

1976

	W10275 SEC 33 CW NWNE 33 T30S R13W	W10276 SEC 18 CW NENE 18 T31S R13W	W10277 SEC 20 CW SWSW 20 T30S R13W	W10278 SEC 16 CW SWSW 18 T30S R13W
LAT	0.0000	0.0000	0.0000	0.0000
LONG	0.0000	0.0000	0.0000	0.0000
STATE	UT	UT	UT	UT
COUNTY	BEAVER	IRON	BEAVER	BEAVER
TEMP(C)	13	14	15	16
FLOW(GPM)				
PH	7.7	7.8b	7.78	7.81
CL	310.	87.	100.	110.
F	1.	.7	.8	.8
SO4	240.	180.	85.	110.
HCO3	150.	149.	160.	124.
CO3	0	0	0	0
SI02	54.	41.	27.	40.
NA	82.	58.	47.	57.
K	8.4	5.	4.	5.
CA	130.	88.	75.	86.
MG	86.	34.	29.	33.
LI	0	.2	0	0
OH	0	0	0	0
CU				
B	.4	.3	.3	.3
MO				
NH3	0	0	0	0
TDS	1061.8	643.2	528.1	566.1
TSIO2	55	43	44	42
TNA/K	186	167	166	169
TNA-K-CA	52	42	37	42
CL/F	310.0	124.3	125.0	137.5
CL/SO4	1.3	0.5	1.2	1.0
CL/HCO3	2.1	0.6	0.6	0.9
CL/LI	0.0	435.0	0.0	0.0
CL/CO	775.0	290.0	333.3	366.7

GEOHERMAL LISTING
MILFORD UTAH RECDN

1976

W10279 LAHO CW NWSE 19 T29S R11W		W10280 LOWE CW SWSW 33 T31S R13W		W10281 EAST BLUE KNOLL CW SWSE 17 T31S R12W		W10282 STAGE STOP CW SESW 30 T31S R12W		W10296 THERMO CW NE 11 T30S R12W	
LAT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LONG	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STATE	UT	UT	UT	UT	UT	UT	UT	UT	UT
COUNTY	BEAVER	IRON	IRON	IRON	IRON	IRON	IRON	BEAVER	BEAVER
TEMP(C)	16	13	13	13	18	15.2			
FLOW(GPM)									
PH	7.72	7.9	7.8	7.72	8.12				
CL	98.	70.	160.	110.	74.				
F	.6	.6	.5	.4	.9				
SO4	150.	240.	290.	210.	140.				
HCO3	189.	210.	144.	134.	144.				
CO3	0	0	0	0	0				
SI02	60.	46.	57.	61.	50.				
NA	100.	88.	140.	79.	110.				
K	4.4	6.2	5.6	6.4	5.8				
CA	57.	86.	95.	100.	33.				
MG	25.	75.	31.	29.	17.				
LI	0	0	0	0	0				
DH	0	0	0	0	0				
CU									
B	.5	.4	.4	.4	.5				
MO									
NH3	0	0	0	0	0				
TDS	684.5	822.2	923.5	730.2	575.2				
TS102	60	48	58	61	72				
TNA/K	104	146	97	160	120				
TNA-K-CA	51	52	52	49	71				
CL/F	163.3	116.7	320.0	275.0	82.2				
CL/SO4	0.7	0.3	0.6	0.5	0.5				
CL/HCO3	0.5	0.3	1.1	0.8	0.5				
CL/LI	0.0	0.0	0.0	0.0	0.0				
CL/CU	196.0	175.0	400.0	275.0	148.0				

GEOHERMAL LISTING
MILFORD UTAH RECDN

1976

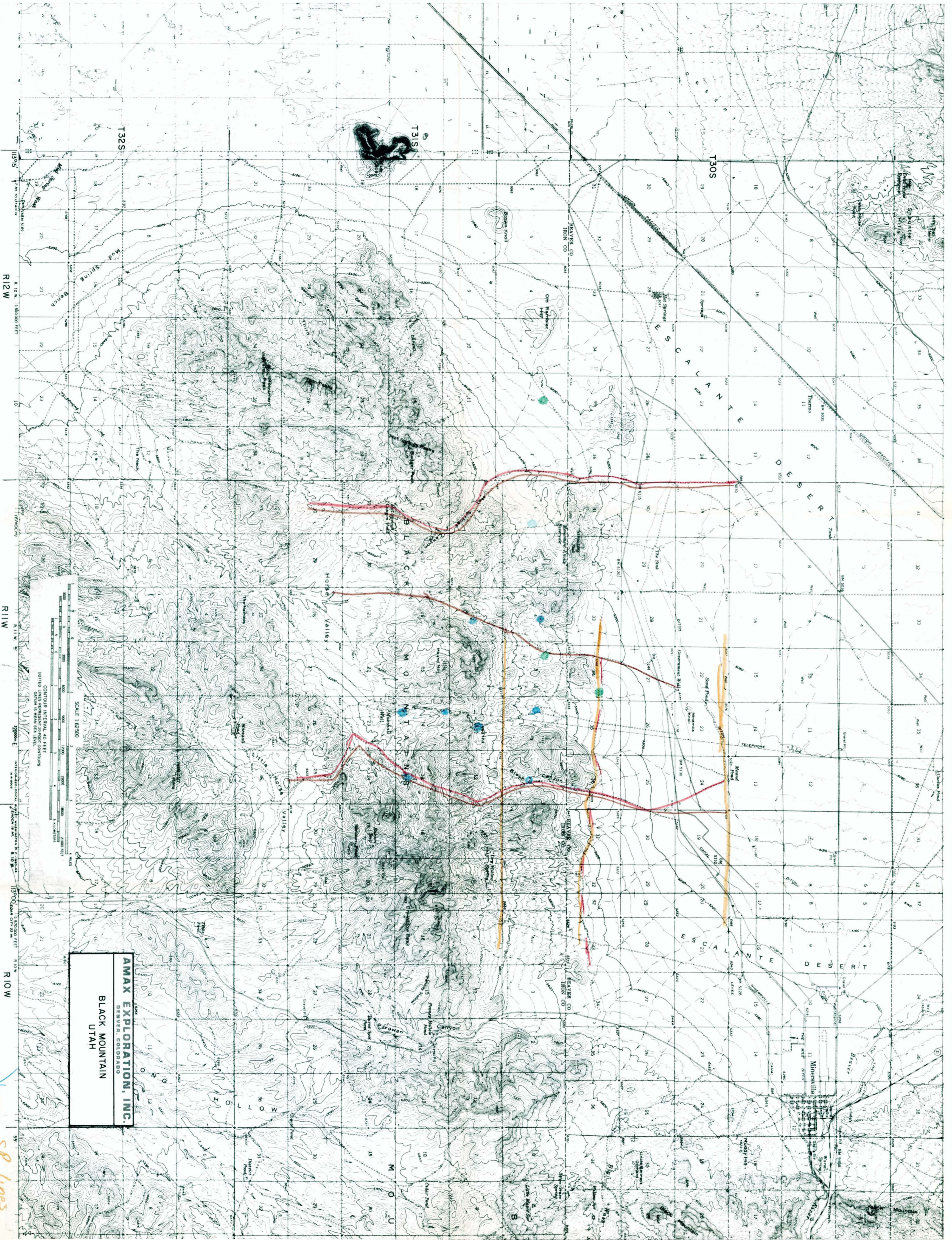
W10267 SE 32 CW SE 32 T29S R7W	W10268 GOVERNMENT WW SESE 22 T30S R11W	W10269 DRY WILLOW CS NE 8 T31S R11W	W10270 HORSE VALLEY WELL NESW 28 T31S R11W
LAT 0.0000	0.0000	0.0000	0.0000
LONG 0.0000	0.0000	0.0000	0.0000
STATE UT	UT	UT	UT
COUNTY BEAVER	BEAVER	IRON	BEAVER
TEMP (C) 13	23	11	
FLOW (GPM)		1	
PH 7.53	8.68	6.6	8.
CL 37.	32.	62.	24.
F .3	1.3	.3	.5
SO4 58.	36.	29.	11.
HCO3 210.	68	171.	139.
CO3 0	12	0	0
SI02 52.	44.	47.	63.
NA 31.	67.	29.	45.
K 4.9	1.9	4.7	4.7
CA 83.	7.	79.	27.
MG 17.	1.	12.	6.
LI 0	0	0	0
OH 0	0	0	0
CU 0	0	0	0
d 0	0	0	.3
MO 0	0	0	0
NH3 0	0	0	0
TDS 493.2	270.2	434.0	320.5
TSI02 53	96	49	62
TNA/K 244	73	248	189
TNA-K-CA 37	63	36	60
CL/F 123.3	24.6	206.7	48.0
CL/SO4 0.6	0.9	2.1	2.2
CL/HCO3 0.2	0.5	0.4	0.2
CL/LI 0.0	0.0	0.0	0.0
CL/CU 0.0	0.0	0.0	80.0

RESOURCE CHARACTERISTICS

- I. Roosevelt Hot Springs 379 - 546
Estimated Reservoir Temperature: 193-282°C
Estimated Reservoir Depths: 800-5000+ feet
Basic Geology: Fractured igneous rock; tertiary granite
and Precambrian gneisses.
- II. Cove Fort - Sulphurdale
Estimated Reservoir Temperature: 211°C (Na-K-Ca @ 5560');
179°C measured maximum
Estimated Reservoir Depths: 2000-7000 feet
Basic Geology: Fractured sandstone, dolomite and marble.
- III. Thermo Hot Springs
Estimated Reservoir Temperature: 130°C-170°C
Estimated Reservoir Depths: Not known
Basic Geology: Not known-probably fractured igneous or
deep circulation on Basin and Range faults.

Sample Number	Description	T °C	GPM	Mg	K	Ca	Na	SiO ₂	Li	B	SO ₄	Cl	F	CO ₂	HCO ₃	PPB Mo	PPB Cu	ph	T °C SiO ₂ No Steam	T °C SiO ₂ Max Steam	T °C SiO ₂ Chol	T °C SiO ₂ Amor.	R	T °C Na K Ca	T °C Na K Ca, Mg	
	WELL 51-A																									
	DEPTH 1009 - 1034	19	20	30.1	8	173	116	161	.052	.12	110	115	1.1	>2	100			7.0	165	142	43			48.69		
	DEPTH OF SAMPLE 1100' - 1130'	26	75	4.8	5.9	52.1	94	82.5	.025	.60	110	145	1.1	>2	87			7.0	127	99	7.5			61		
	1174' 68°F	20	100	1.9	6.9	34.5	101	97.5	.028	7.1	95	135	1.3	72	83			6.4	136	109	16			75		
	1194' 92°F	33	50	.67	9.3	187	108	73	.022	.4	70	105	.75	140	72			8.0	120.3	92	2.01			51		
	1234' 100°F	37	45	1.58	4.7	23.1	92	82.5	.018	7.1	100	125	1	56	72			7.6	127	99	7.6			70		
	1268' 100°F	37	50	1.6	4.3	105	91	58	.023	7.1	28	85	.79	53	72			9.5	109	79	-7.9			39		
	1311' 100°F	37	40	5.3	13	120	140	97.5	.31	.3	110	160	.98	8	63			8	136	109	16			72		
	1511' 98°F	36	40	2	6	94	110	62.5	.03	.1	120	100	.81	66	3			8	112	83	-5			51		
	1551' 92°F	33	25	1.3	10	350	110	26	.04	7.1	4	145	.28	445	72			11.6	63	31	-46			42		
	1820' 115°F	46	60	5.7	7.8	180	140	101	.03	7.1	55	44	.57	20	72			8	138	111	17			49		
	1838' - 1845' 125°F	51	40	1.2	2.2	18	99	85	.02	7.1	70	34	1.13	72	83			5.5	128	101	9			53		
	1847' - 1867' 119°F	47	100	2.4	1.7	35	99	92	.03	7.1	65	36	1.05	72	63			5.2	133	105	13			35		
	1867' - 1928' 130°F	54	100	1.9	1.2	15	90	90	.02	7.1	60	32	1.05	72	40			5.5	131	104	12			39		
	1875' - 2070' 126°F	52	140	.61	2.3	17	100	69	.02	7.1	40	36	1.05	7	80			5.3	117	89	-1			56		
	2080' - 2108' 126°F	52	180	1.6	2.3	25	100	62	.03	7.1	85	40	.96	10	53			5.6	112	83	-5			49		
	2080' - 2288' 122°F	49	180	.73	1.9	10	96	56	.02	7.1	65	38	.92	72	60			5.1	107	78	-9			60		
	WELL 59																									
	DEPTH 165'	64°F	18	15	15	3.2	111	67	48	.03	7.1	75	180	.23	72	225			5.9	100	70	-16			28	
	DEPTH OF SAMPLE 900'	75°F	24	20	2.7	3.2	22	85	55	.03	7.1	95	60	.96	72	100			5.3	106	77	-10			59	
	1293'	108°F	44	125	1.93	3.6	51	91	76	.03	7.1	95	48	.84	82	72			8	122	94	3.8			47	
	1593'	98°F	30	30	7.1	5.2	35	100	59	.077	7.1	85	36	.88	72	110			5.3	109	80	-7			65	
	1993'	88°F	31	30	31	5.8	40	95	120	.19	.4	90	65	.92	72	100			5.3	148	122	26			66	
	2,373' A	90°F	32	20	18	7.2	45	91	93	.05	.1	65	46	.92	72	105			5.3	133	106	13.3			69	
	2373' B	91°F	33	20	.17	17	690	102	2	.05	7.1	72	55	.2	100	72			9.5	-5	-30	-99			43	

Sample Number	Hour	Oil Co	Branch	WTH	Description	T °C	GPM	Mg	K	Ca	Na	SiO ₂	Li	B	SO ₄	Cl	F	CO ₂	HCO ₃	PPB Mo	PPB Cu	ph	T °C SiO ₂ No Steam	T °C SiO ₂ Max Steam	T °C SiO ₂ Chal	T °C SiO ₂ Amor.	R	T °C Na K Ca	T °C Na K Ca, Mg	
					Well 62-A																									
					DEPTH																									
					606'	60°F	15	.5	4.1	69	730	68	49	.05	2.1	140	355	.29	1000	72			8.0	101	70	-15			79	
					OF SAMPLE																									
					980'	82°F	27	60	2.7	8.5	79.6	81	73	.02	2.1	210	85	.24	72	83			5.3	120	92	2			62	
					1155'	82°F	27	60	2.2	8.2	83.4	76	62.5	.019	2.1	190	60	.28	72	87			5.3	113	83	-4			59	
					1490'	84°F	28	60	3.1	8.1	110	82	100	.03	.1	80	90	.33	72	80			5.3	137	110	16.9			59	



AMAX EXPLORATION, INC.
 DENVER, COLORADO
BLACK MOUNTAIN
 UTAH

SCALE 1:62,500

CONTOUR INTERVAL 40 FEET
 SPOT ELEVATIONS 5 FEET
 NORTH DATUM IS MEAN SEA LEVEL

R11W

R12W

T32S

T30S

R10W

T30N

R11E

T31N

R12E

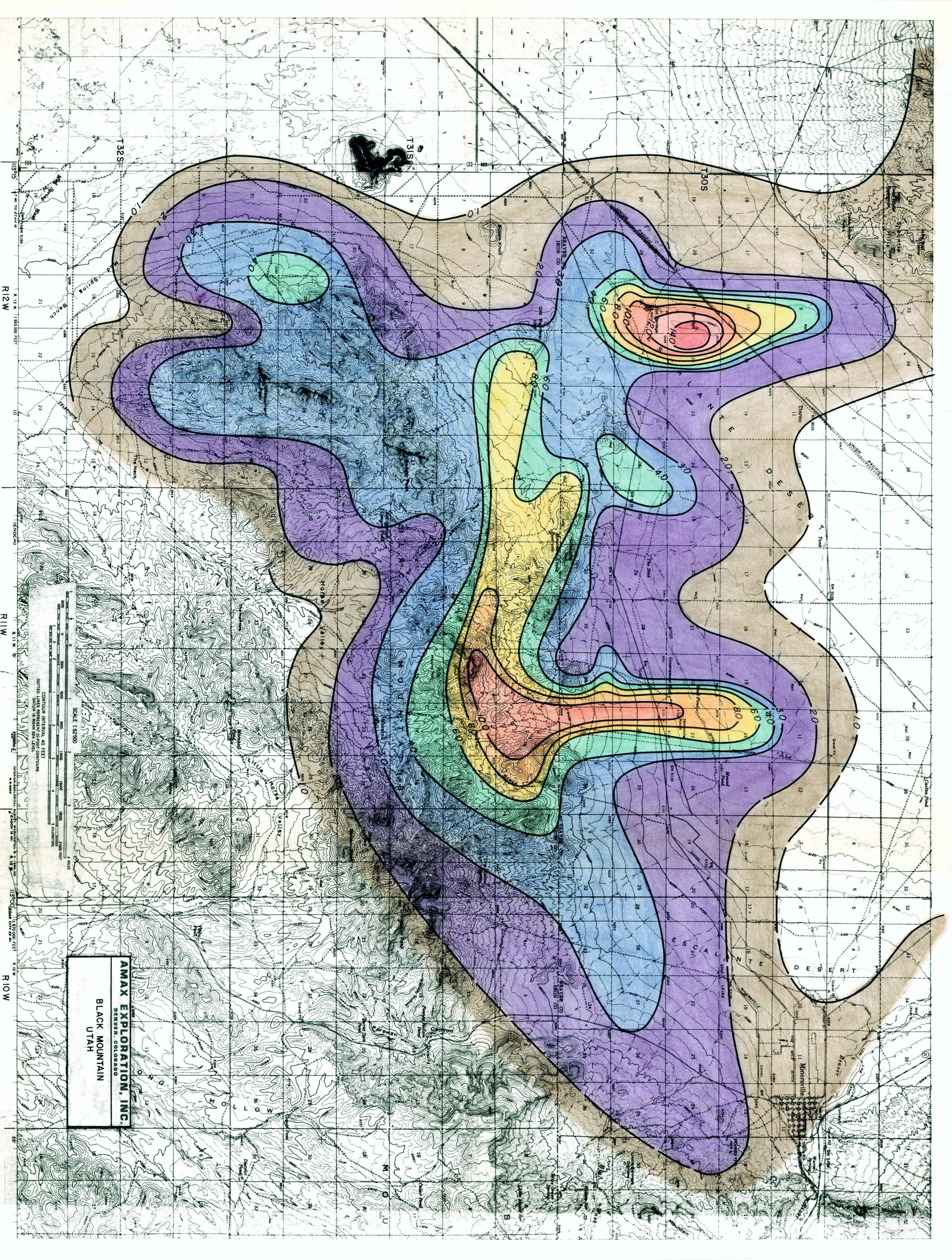
T32S

R12W

T32S

R12W

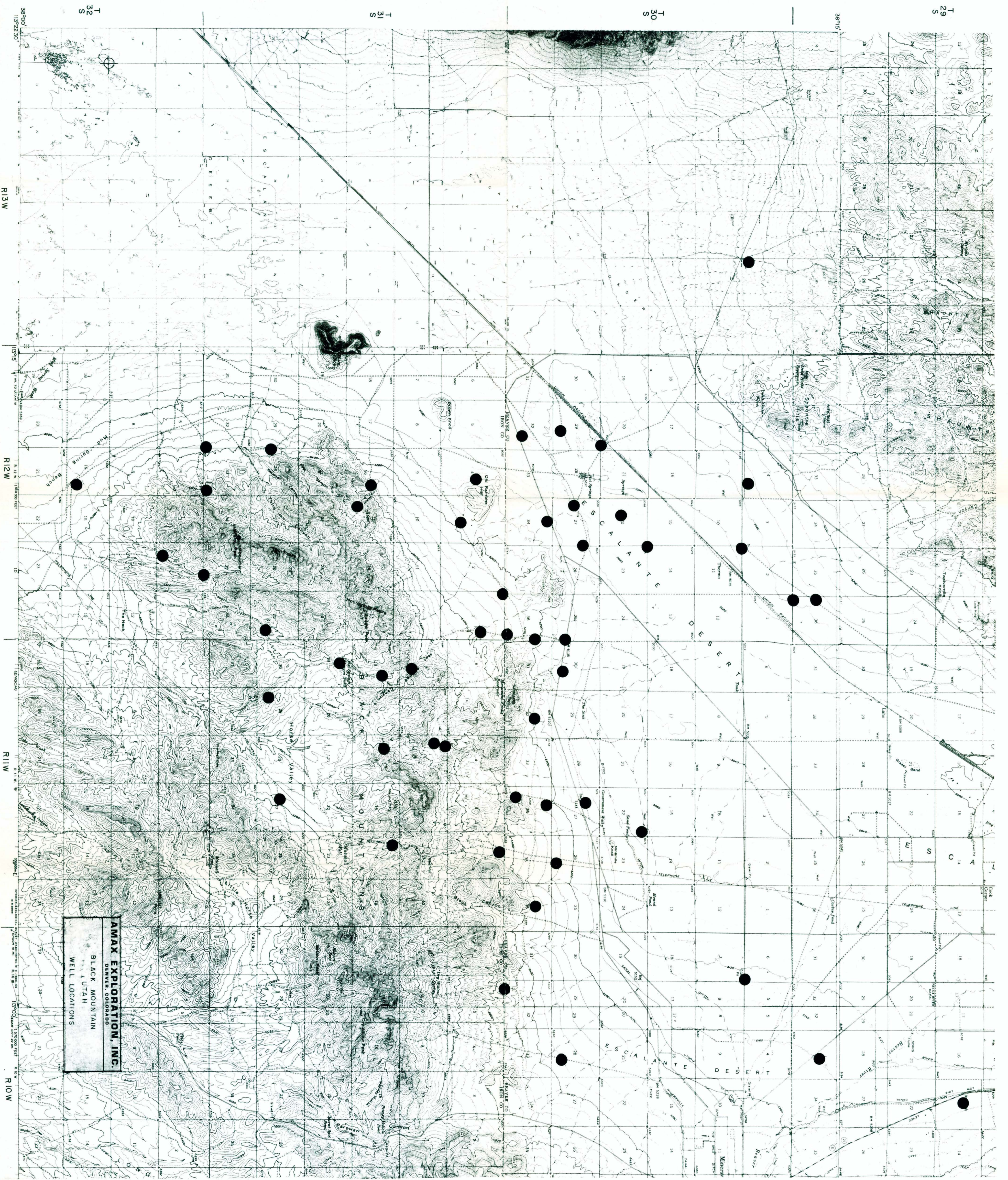
610 m ΔT
 70-150 m ΔT
 MT Profile
 to be determined
 58 lines
 Gravity + my profiles



T30S
T31S
R12W
R10W

AMAX EXPLORATION, INC.
DENVER, COLORADO
BLACK MOUNTAIN
UTAH

SCALE 1:62,500
CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
DASHES REPRESENT 10-FOOT CONTOURS
DASHES REPRESENT 5-FOOT CONTOURS



T
29
S

T
30
S

T
31
S

T
32
S

38°05'

38°00'

R13W

R12W

R11W

R10W

AMAX EXPLORATION, INC.
BLACK MOUNTAIN
UTAH
GREEN, COLORADO
WELL LOCATIONS