

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/ 14/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: 11-4-83
 County, State: Millard, UT Day #: 11
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 4,000 TD to _____ Mud/Air/ _____
 Footage Cut _____ Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey 0 Vis _____
 Casing _____ Ph _____
 Bits, stabs, etc. & ser. # _____

Lithology _____

Additional Report Broke down drill pipe and removed rotating head and BOPE.
Pulled 8 5/8" casing out of hole and started rigging down. Supply company's
notified to pick up equipment. Well has been capped with a 2" gate valve and
area backfilled.

Well History

Interval

Hole Size

Casing

0- 64
64-177
177-295
295-913
913-4000 (TD)

30"
24"
20"
6 3/4"
6 1/2"

30" (0-20')
24" (0-106.5')
16" (0-295')
8 5/8" (0-275') (removed
from hole)

Expenditures

Total to date 159,967.
Projected _____
Cost/Ft 43.24
Budgeted 207,237.

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 **Date:** 11/ 13/83
Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W **Spud Date:** 11-4-83
County, State: Millard, UT **Day #:** 10
Prog. Depth: 4,000' **Contractor:** Stewart Bros.
Geologist: Deymonaz/Huntsman **Rig.:** Failing 2500

Drilled 3945 **to** 4000 **Mud/Air/** mud and aeriated mud
Footage Cut 55' **Temp: In** 94°F **Out** 104°F
Hole Size 6.5 **Wt** 9.3
Dev. Survey 3° **Vis** 33 up to 50
Casing **Ph** 8.6

Bits, stabs, etc. & ser. # EA 2436 Smith F-4 journal (in at 3580')

Lithology Dark gray ashfall tuff

Additional Report Hole reached TD at 4 a.m., circulated heavy muds for 3 hours and then ran Sperry Sun multi shot through drill pipe until noon. POH and started running electric logs by Gearhart, logged temperature and gamma going into hole & ran compensated neutron and density plus gamma and calipers coming out. Second survey was to include SP and induction logs but could not get tool past 740'. TIH with 1,000' drill pipe and fought obstruction all the way to 1,000' so second survey was called off

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>
<u>0-64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913-4000 (TD)</u>	<u>6 1/2"</u>	

Expenditures

Total to date _____
Projected _____
Cost/Ft _____
Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 **Date:** 11/12/83
Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W **Spud Date:** 11-4-83
County, State: Millard, UT **Day #:** 9
Prog. Depth: 4,000' **Contractor:** Stewart Bros.
Geologist: Deymonaz/Huntsman **Rig.:** Failing 2500

Drilled 3580' **to** 3945' **Mud/Air/** mud and air
Footage Cut 365' **Temp: In** 93°F **Out** 103°F
Hole Size 6.5 **Wt** 8.5
Dev. Survey 0 **Vfs** 31
Casing _____ **Ph** 9

Bits, stabs, etc. & ser. # EA 2436 Smith F-4 journal (in at 3580')

Lithology Dark gray crystal lithic ashfall tuff

Additional Report Drilling ahead with no problems, penetration has slowed to 3 to 6 min. per foot.

Well History

Interval

Hole Size

Casing

0- 64
64-177
177-295
295-913
913-3945

30"
24"
20"
6 3/4"
6 1/2"

30" (0-20')
24" (0-106.5')
16" (0-295')
8 5/8" (0-275')

Expenditures

Total to date _____
Projected _____
Cost/Ft _____
Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 **Date:** 11/11/83
Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W **Spud Date:** 11/4/83
County, State: Millard, UT **Day #:** 8
Prog. Depth: 4,000' **Contractor:** Stewart Bros.
Geologist: Deymonaz/Huntsman **Rig.:** Failing 2500

Drilled 3312' **to** 3580' **Mud/Air/** mud & aeriated mud
Footage Cut 268' **Temp: In** 93°F **Out** 104°F
Hole Size 6.5 **Wt** 9.1
Dev. Survey @ **Vis** 34
Casing _____ **Ph** 9

Bits, stabs, etc. & ser. # run EA 2436 Smith F4

Lithology Dark gray ashfall tuff

Additional Report POH at 3580' for bit. Drill pipe would not go back down hole and had to be drilled to bottom. Percy Wicklund believes that a chunk of cement (from bottom of casing) is obstructing drill hole. Bit on bottom at 7:30 p.m. and then ran temperature survey through drill pipe until end of shift.

Mell History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913- 3580</u>	<u>6 1/2"</u>	_____

Expenditures

Total to date _____
Projected _____
Cost/Ft _____
Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/10/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: 11/4/83
 County, State: Millard, UT Day #: 7
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Falling 2500

Drilled 2690' to 3312' Mud/Air/ mud and aeriated mud
 Footage Cut 622' Temp: In 93°F Out 104°F
 Hole Size 6.5 Wt 9.0
 Dev. Survey 0 Vis 33
 Casing _____ Ph 9

Bits, stabs, etc. & ser. # _____
 Lithology Dark gray ashfall tuff
 Additional Report Drilling ahead with a penetration rate of 1 to 4 minutes per foot.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913-3312</u>	<u>6 1/2"</u>	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft: _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/9/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: 11-4-83
 County, State: Millard, UT Day #: 6
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 2214' to 2690' Mud/Air/ aeriated
 Footage Cut 476' Temp: In 80°F Out 102°F
 Hole Size 6 1/2" Wt 9.0
 Dev. Survey @ Vis 33
 Casing _____ Ph 9.0

Bits, stabs, etc. & ser. # EC5182 Smith F-3 6 1/2" journal (in @ 2560')

Lithology pink rhyolite tuff

Additional Report POH, change bit at 1560, RIH drilling ahead, penetration
15-60'/hr.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913- 2214</u>	<u>6 1/2"</u>	<u>_____</u>

Today: 14,516.

Expenditures

Total to date 101,715.
 Projected _____
 Cost/Ft 42.47
 Budgeted 207,236.

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/ 8/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: Phase II 11-4-83
 County, State: Millard, UT Day #: 5
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 1545' to 2214' Mud/Air/ _____
 Footage Cut 669' Temp: In 82°F Out 106°F
 Hole Size 6 1/2" Wt 8.7
 Dev. Survey @ Vis 41
 Casing _____ Ph 7.0

Bits, stabs, etc. & ser. # ECH 881 Smith 6 1/2" journal (in at 1450')
 Lithology Pink rhyolite tuff
 Additional Report Drilling ahead with mud, penetration 45-100'/hr. Ward Wagstaff, Utah Division of Water Resources, visited site to inspect operations.

Mell History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913-2214</u>	<u>6 1/2"</u>	_____

Today: 11,490.
Expenditures
 Total to date 87,199.
 Projected _____
 Cost/Ft 45.44
 Budgeted 207,236.

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/7/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 1448' to 1585' Mud/Air/ _____
 Footage Cut 97' Temp: In 55°F Out 97°F
 Hole Size 6 1/2" Wt NR
 Dev. Survey @ Vis NR
 Casing _____ Ph NR

Bits, stabs, etc. & ser. # Smith 6 1/2" journal

Lithology _____

Additional Report WOC, RIH, tag cement at 3 am., drill to 1,450', set second cement plus (20 ft³), WOC. Change rotating head rubber, repairs on rig.

Condition hole, begin drilling ahead at 3:30 a.m. Have returns but high fluid loss. Penetration 20-84'/hr.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913-1585</u>	<u>6 1/2"</u>	_____

Expenditures

Total to date 75,709
 Projected _____
 Cost/Ft 58.69
 Budgeted 207,236.

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/6/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 1390' to 1448' Mud/Air/ aeriated
 Footage Cut 68' Temp: In 59°F Out 90°F
 Hole Size 6 1/2" Wt 9.3
 Dev. Survey @ Vis 80
 Casing _____ Ph 6.0

Bits, stabs, etc. & ser. # EA 2436, Smith 6 1/2" journal

Lithology Rhyolitic tuffs and basalts (dikes?)

Additional Report RIH to clean hole, no returns, washed and drilled to 1,418,
unable to make connection. Pump heavy mud and condition hole, POH, wait on
cement. Halliburton arrived at 9:30p, set first plug at 1,448' at 11:30p using
20 ft.³ of cement, pull drill pipe back to 1,240 WOC. Penetration 30'/hr.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>
<u>0- 64</u>	<u>30"</u>	<u>30"(0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
		<u>8 5/8"</u>
<u>295-913</u>	<u>6 3/4"</u>	_____
<u>913-1,448</u>	<u>6 1/2"</u>	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/5/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 913' to 1390' Mud/Air/ aeriated
 Footage Cut 477' Temp: In 58°F Out 89°F
 Hole Size 6 1/2" Wt 8.3-9.5
 Dev. Survey @ Vis 31-80
 Casing _____ Ph 6.2

Bits, stabs, etc. & ser. # EA 2436, Smith 6 1/2 journal

Lithology Rhyolitic tuffs with olivine basalts below 1,000'

Additional Report RIH, drill ahead with aeriated mud, hole caving below 1,150',
increase mud weight at 1,174', LC at 1,390', stuck pipe briefly. Condition hole
with heavy mud, POH. Penetration 38'-92'/hr.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>913-1390'</u>	<u>6 1/2"</u>	<u>8 5/8"</u>

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/4/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295' to 913' Mud/Air/ foam injection
 Footage Cut 618' Temp: In _____ Out _____
 Hole Size 6 3/4" Wt _____
 Dev. Survey @ Vis _____
 Casing _____ Ph _____

Bits, stabs, etc. & ser. # _____

Lithology Rhyolitic tuffs

Additional Report Complete rigging up BOP & test blind and pipe rams to 200psi for 20 minutes each. Ward Wagstaff from Utah Div. of Water Resources observed test. Nipple up rotating head, finish blewie line installation. RIH with 6 3/4" hammer and drill 295-913 feet, penetration 80-150 ft/hr. First water at 450 ft., 150 gpm at 913 ft. Flood out hammer, POH change to journal hearing rock bit.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>
<u>0- 64</u>	<u>30"</u>	<u>30"(0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24"(0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16"(0-295')</u>
		<u>8 5/8"</u>
<u>295-913</u>	<u>6 3/4"</u>	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/3/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295 to 295 Mud/Air/ _____
 Footage Cut 0 Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey @ Vis _____
 Casing _____ Ph _____

Bits, stabs, etc. & ser. # _____
 Lithology _____

Additional Report Unable to engage packer, pull casing, modify packer springs,
run casing, packer finally engaged at 4p after several attempts. Installed
wellhead flange and BOP equipment.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>	<u>Total to date _____</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>	<u>Projected _____</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Cost/Ft _____</u>
_____	_____	<u>8 5/8"</u>	<u>Budgeted _____</u>
_____	_____	_____	
_____	_____	_____	

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/2/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295 to 295 Mud/Air/ _____
 Footage Cut 0 Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey @ Vis _____
 Casing _____ Ph _____

Bits, stabs, etc. & ser. # _____
 Lithology _____

Additional Report Setting up rig, install wellhead flange to hang 8 5/8" casing
Run 8 5/8" to 290', packer failed to engage.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/1/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295 to 295 Mud/Air/ _____
 Footage Cut 0 Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey _____ @ _____ Vis _____
 Casing _____ Ph _____
 Bits, stabs, etc. & ser. # _____

Lithology _____

Additional Report Rig moved to location at 1:30p, began setting up, built cellar, dig pits.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 10/4-10/10/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: 4000' Contractor: Andrew Well Drilling

Geologist: Deymonaz Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 239' to 295' Mud/Air/ churn

Footage Cut 56' Temp: In _____ Out _____

Hole Size 20" Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing 30" 0-20; 24" 0-106.5'; 16" 0-295' Ph _____

Report: 10/4 239-248' hard gray rock
10/5 248-281' Hard gray rock 248-258, clay and loose rock 258-265, brown sandstone 265-281.
10/6 281-295' Firm brown rock (welded tuff)
10/7 Run 16" casing to 220'
10/8 Set 16" casing to 295'; cement with 8 yds sand mix, begin pulling 20" casing.
10/9 Remove 20" casing, cement with 25 yds cement.
10/10 Rig down, release rig.

Well History

Expenditures

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Total to date</u> <u>106,000</u>
<u>0-64'</u>	<u>30"</u>	<u>30"</u>	<u>Projected</u> _____
<u>64-177'</u>	<u>24"</u>	<u>24" (0-106.5)</u>	<u>Cost/Ft</u> _____
<u>177-295'</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Budgeted</u> _____
_____	_____	_____	_____
_____	_____	_____	_____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/30-10/3/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 222' to 239' Mud/Air/ churn

Footage Cut 17' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey @ Vis _____

Casing _____ Ph _____

Report: 9/30: 222-226' Gray fractured basalts. Brown clay in seams. Had to backfill and redrill.

10/1: 226-230' Gray basalts (hard brown fractures with clay).

10/2: 230-235' Gray basalts-breaking weld on bit.

10/3: 235-239' Gray basalts.

20" hole - no water encountered.

20" casing - 183'

Well History

Interval	Hole Size	Casing	Expenditures
0-20'	30"	_____	Total to date _____
0-107'	24"	_____	Projected _____
0-177'	20"	_____	Cost/Ft _____
0-239'	20"	_____	Budgeted _____
_____	_____	_____	
_____	_____	_____	

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/27-9/29/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 190 to 222' Mud/Air/ churn

Footage Cut 32' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 9/27: 190-194' Broken and fissured basalts.

9/28: 194-212' Cinders & brown basalts.

9/29: 212-222' Gray fractured basalts.

Well History

Interval	Hole Size	Casing	Expenditures
0-20'	30"	_____	Total to date _____
0-107	24"	_____	Projected _____
0-177	20"	_____	Cost/Ft _____
0-222	20"	_____	Budgeted _____
_____	_____	_____	
_____	_____	_____	

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/23/83-9/26/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 177' to 190' Mud/Air/ churn

Footage Cut _____ Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing 20" Ph _____

Report: 9/23: unloading 20" pipe and changing tools.

9/24: 177-180' - gray, hard basalt. Very rough, broken up.

9/25: 180-184' - same as above.

9/26: 184-190' - same material. Hit big crevice.

Well History

Interval	Hole Size	Casing
0-20'	30"	30
0-107	24"	24
107-190 177	20"	20

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/20-9/22/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 161' to 177' Mud/Air/ churn

Footage Cut 16' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 9/20: 161-165'

hard, brown basalt, caving badly.

9/21: 165-173'

fractured brown basalt. Losing all water. Hole caving.

9/22: 173-177' *Cuttings hot to touch - hole*

(same as above). *bringing some steam*

Caving badly. Necessary to case hole 20 inch.

Well History

Interval	Hole Size	Casing
<u>0-20'</u>	<u>30"</u>	_____
<u>20-107</u>	<u>24"</u>	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
Projected _____
Cost/Ft _____
Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/16-9/19/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 134' to 161' Mud/Air/ churn

Footage Cut 27' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 9/16: 134'-143' basalt, broken, grayⁱⁿ color. (24" casing: 103'7" - set in basalt).

Hole was caving, shot hole with 45 sticks of 60% explosives @ 134' to bring hole back in line.

9/17: 143-155' - (140-145', broken brown basalts);

(146-150', cinders caving);

(150-155', broken brown basalts)

9/18: 155-160' basalts, brown and broken. From 158' basalts gray.

9/19: 160-161' hard, basalts gray

Casing depth 107', 24"

Well History

Interval	Hole Size	Casing	Expenditures
0-20'	30"	_____	Total to date _____
0-107'	24"	_____	Projected _____
_____	_____	_____	Cost/Ft _____
_____	_____	_____	Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/13-9/15/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 114' to 134' Mud/Air/ churn

Footage Cut 20' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 9/13: 114'-118' Cavernous basalts

9/14: 118'-128' Cavernous basalts

9/15: 128'-134' Shot twice with explosives to align hole.

24" casing at 103'

Well History

Interval	Hole Size	Casing	Expenditures	
			Total to date	Projected
0-20'	30"	_____	_____	_____
20-134'	24"	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/9-9/12/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 102' to 114' Mud/Air/ churn

Footage Cut 12' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 9/9: 102-105' Cavities in the basalt, losing all water in hole & no cuttings coming back.

9/10: 105-108' (24" casing down to 103')

9/11: 108-112' hard basalt formation; couldn't keep water in hole.

9/12: 112-114' same formation as above. Problems getting through.

Well History

Interval	Hole Size	Casing	<u>Expenditures</u>
0-20'	30"	7"	Total to date _____
20-114	24"		Projected _____
			Cost/Ft _____
			Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 8/30-9/8/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 65' to 102' Mud/Air/ churn

Footage Cut 37' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 8/30:	48-50'	basalts
8/31:	50-55'	fracturedbasalts
9/1	55-64	basalts & cinders
9/2:	64	hole caving, reduced hole from 28" to 24"
9/3:	64-70'	basalts
9/4:	70-74'	fractured basalt
9/5:	74-76'	basalt
9/6:	76-82'	basalt & cinders
9/7:	82-92'	cinders
9/8:	92-102'	cinders; hole cased to 100 feet with 24" casing

No water encountered in hole yet.

Well History

Interval	Hole Size	Casing
<u>0-20'</u>	<u>30"</u>	<u>7"</u>
<u>20-102'</u>	<u>28"&24"</u>	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 **Date:** 9/5-9/9/83
Location: NW of NW Sec. 2 T 26S R 7W **Spud Date:** 8/21/83
County, State: Millard, UT **Day #:** _____
Prog. Depth: _____ **Contractor:** H. Andrews
Geologist: _____ **Rig.:** Bucyrus-Erie 36-L

Drilled 65' **to** 102' **Mud/Air/** Churn
Footage Cut 37 **Temp: In** _____ **Out** _____
Hole Size _____ **Wt** _____
Dev. Survey _____ **@** _____ **Vis** _____
Casing _____ **Ph** _____
Bits, stabs, etc. & ser. # _____

Lithology _____
Additional Report 8/30: 48-50'; 8/31: 50-55'; 9/1: 55-64'; 9/2: 64' (reduced to 24" casing and bit); 9/3: 64-70'; 9/4: 70-74' (fractures in basalt); 9/5: 74-76'; 9/6: 76-82' (drilling and casing with 24" tools down to 102'); 9/7: 82-92'; 9/8: 92-102' (no water encountered in hole yet).

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>
<u>0-20</u>	<u>30"</u>	<u>20"</u>
<u>20-102'</u>	<u>28" & 24"</u>	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
Projected _____
Cost/Ft _____
Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: August 21 thru September 1, 1983

Location: NW of NW Sec. 2 T 26 S R 7 W Spud Date: August 21

County, State: Millard, Utah Day #: 1-12

Prog. Depth: _____ Contractor: ^{Howard}~~Harold~~ Andrews

Geologist: _____ Rig.: Bucyrus - Erie 36-~~4~~ L

Drilled 0 to 65 Mud/Air/ Churn

Footage Cut 65 Temp: In _____ Out _____

Hole Size 30" and 28" Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing 30" 0-20" Ph _____

Bits, stabs, etc. & ser. # _____

Lithology Thin basalt flows (5-15') and interflow cinders.

Additional Report Spud 30" hole on afternoon of August 21. Drill 30" hole and follow with 30" casing, set casing to ^{20'}~~30'~~. Continue drilling 28" open hole from 20-65 feet. Three thin basalt flows and three cinder~~x~~ zones encountered in first 65 feet. Driller reported on morning of September 2, drilling ahead with 28" hole in unconsolidated cinder, no water encountered.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
<u>0-20'</u>	<u>30"</u>	<u>20"</u>	Total to date _____
<u>20-65'</u>	<u>28"</u>	<u>--</u>	Projected _____
_____	_____	_____	Cost/Ft _____
_____	_____	_____	Budgeted _____