

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

P. O. Box 3667
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Massanutten Development Company Mailing Address: P. O. Box 1227, Harrisonburg, Va.

TENANT: _____ Well # 4 Mailing Address: _____

DRILLER: Burner Well Drilling Mailing Address: P. O. Box 98, McGaheysville, Va.

WELL LOCATION: County Rockingham Approx. 10,800 ^{feet} miles East (direction) of
78°47'30" Longitude and 10,700 ^{feet} miles North (direction) of 38°22'30" Latitude

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: January 27, 1972 DATE COMPLETED: February 15, 1972

TYPE OF DRILL RIG USED: Air Rotary TOTAL DEPTH 397 feet

WATER LEVEL: Stands _____ feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Air
Drawdown _____ feet
Rate 25 (below 47 feet) gal. per min.
Duration _____ hrs., _____ min.
0 47

HOLE SIZE: 8 inches from 0 to 47 feet
6 1/8 inches from 47 to 300 feet
6 inches from 300 to 397 feet

WATER ZONES: from 47 to 100 feet
100 200
from 200 to 300 feet
from _____ to _____ feet

SCREEN SIZE: _____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER: Color Clear Taste _____
Odor None Temp. _____ °F

CASE SIZE: 6 inches from 0 to 47 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WELL TO SUPPLY: (check one) Home _____
Farm _____ Town _____ School _____
Industry _____ Other Lodge

GROUTING: Method Not grouted this date
Material _____ Depth _____ feet

WATER ANALYSIS AVAILABLE: Yes X No _____
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PUMP: Type Not pumped this date
Capacity _____ gal per min
Depth of intake _____ feet

DRILL CUTTINGS SAVED: Yes X No _____

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: _____

LOG

FURNISHED BY: Burner Well Drilling DATE: February

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	42	Gravel-Sandstone with intermittent Shale	
42	300	Unconsolidated shale-soft & broken	
300	397	Shale	

VIRGINIA DIVISION OF MINERAL RESOURCES
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

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Well Repository No.: C-619
 W-3405

Date rec'd: 2-14-72; Date Processed: 3-28-72 Sample Interval: from 0 to: 397'

PROPERTY: Massanuttan Dev. Co. #4

Number of samples: 41

COMPANY: G. F. Burner

Total Depth: 397'

COUNTY: Rockingham (McGaheysville)

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To	From-To
0_10	340_350	-	-	-
10_20	350_360	-	-	-
20_25	360_370	-	-	-
25_30	370_380	-	-	-
30_40	380_390	-	-	-
	390_397	-	-	-
40-50	-	-	-	-
50-60	-	-	-	-
60-70	-	-	-	-
70-80	-	-	-	-
80-90	-	-	-	-
90-100	-	-	-	-
100-110	-	-	-	-
110-120	-	-	-	-
120-130	-	-	-	-
130-140	-	-	-	-
140-150	-	-	-	-
150-160	-	-	-	-
160-170	-	-	-	-
170-180	-	-	-	-
180-190	-	-	-	-
190-200	-	-	-	-
200-210	-	-	-	-
210-220	-	-	-	-
220-230	-	-	-	-
230-240	-	-	-	-
240-250	-	-	-	-
250-260	-	-	-	-
260-270	-	-	-	-
270-280	-	-	-	-
280-290	-	-	-	-
290-300	-	-	-	-
300-310	-	-	-	-
310-320	-	-	-	-
320-330	-	-	-	-
330-340	-	-	-	-

All intervals have both washed & unwashed samples.

OWNER: Massanutten Development Co. (well #4)
DRILLER: Burner Well Drilling
COUNTY: Rockingham (McGaheysville)

W-3405
C-619
TOTAL DEPTH: 397'

GEOLOGIC LOG

Depth
in feet

UNCONSOLIDATED ALLUVIUM (0-40')

0-10 Unconsolidated quartz sand
10-20 Unconsolidated quartz sand
20-25 Unconsolidated quartz sand and shale fragments
25-30 Quartzite and shale fragments
30-40 Quartzite and shale fragments

NEEDMORE FORMATION (40-400')

40-50 Calcareous shale - light gray
50-60 Calcareous shale - light gray
60-70 Calcareous shale - light gray
70-80 Calcareous shale - light gray
80-90 Calcareous shale - light gray with calcite fragments
90-100 Calcareous shale - light gray
100-110 Calcareous shale - light gray
110-120 Calcareous shale - light gray
120-130 Calcareous shale - light gray with calcite fragments
130-140 Calcareous shale - light gray
140-150 Calcareous shale - light gray with calcite fragments
150-160 Calcareous shale - light gray (low calcite content)
160-170 Calcareous shale - light gray (low calcite content)

OWNER: Massanutten Development Co. (well #4)

W-3405

Depth
in feet

170-180	Calcareous shale (low calcite content)
180-190	Calcareous shale (low calcite content)
190-200	Calcareous shale (low calcite content)
200-210	Calcareous shale (low calcite content)
210-220	Calcareous shale (low calcite content)
220-230	Calcareous shale (low calcite content) with calcite fragments
230-240	Calcareous shale (low calcite content) with calcite fragments
240-250	Shale with calcite fragments
250-260	Shale with calcite fragments
260-270	Calcareous shale (low calcite) with calcite fragments
270-280	Calcareous shale with calcite and pyrite fragments
280-290	Calcareous shale with calcite fragments
290-300	Calcareous shale
300-310	Calcareous shale
310-320	Calcareous shale and quartzite
320-330	Calcareous shale
330-340	Calcareous shale with calcite fragments and quartz sand
340-350	Calcareous shale
350-360	Calcareous shale
360-370	Calcareous shale
370-380	Calcareous shale with calcite fragments
380-390	Calcareous shale
390-400	Calcareous shale

OWNER: Massanutten Development Co. #4

W-3405

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
40'	Unconsolidated Alluvium	Recent(?)
360'	Needmore Formation	Devonian

Virginia Division of Mineral Resources
P. S. Frischmann, Geologist
May 5, 1978