

WELL SCHEDULE

SITE NAME 13FF18 OTHER IDENTIFIER Winer Ind WELL NUMBER 335721084004801
 Latitude 33° 57' 21.14" Longitude -84° 0' 48.13" Ground Elevation 953.8 NGVD 29
 OWNER City of Lawrenceville Casing Elevation 955.76 NGVD 29

WELL CONSTRUCTION DESCRIPTION

Name of Aquifer: metamorphic - crystalline rock

TYPE OF DRILLING

Rotary Total Depth 550
 Percussion Static Water Level (bls)
 Bored -6.6 @

10/31/2001 11:20

DRILL HOLE DIAMETER

Size 12 in, from 0 ft to 55 ft
 Size 8 in, from 55 ft to 200 ft
 Size 6 in, from 200 ft to 550 ft

CASING RECORD

Type material steel
 Size 8 in, from 0 ft to 55 ft
 Size in, from ft to ft
 Size in, from ft to ft

WELL SCREEN

Type material open hole
 Size in, from ft to ft
 Size in, from ft to ft
 Size in, from ft to ft

Date drilled 5/9/2001 8/1/2001

Driller Middle Georgia Water Systems

GROUTING YES NO

Type portland type I

From 0 ft to 55 ft

From ft to ft

From ft to ft

TEST PUMP DATA

Pumped Bailed

Estimated 150 (air-lift yield)

Date tested 9/4/2001 9/7/2001

Pump rated 135 gal/min 25 HP

Test yield 135.4 gal/min After 70 hrs

Water level before test -1.55 (flowing) ft btoc

Drawdown 87.3 ft

Specific Capacity 1.5 gal/min/ft

Altitudes are in reference to NGVD 29

Latitude/longitude in NAD 83

Depths are in feet below land surface (bls)

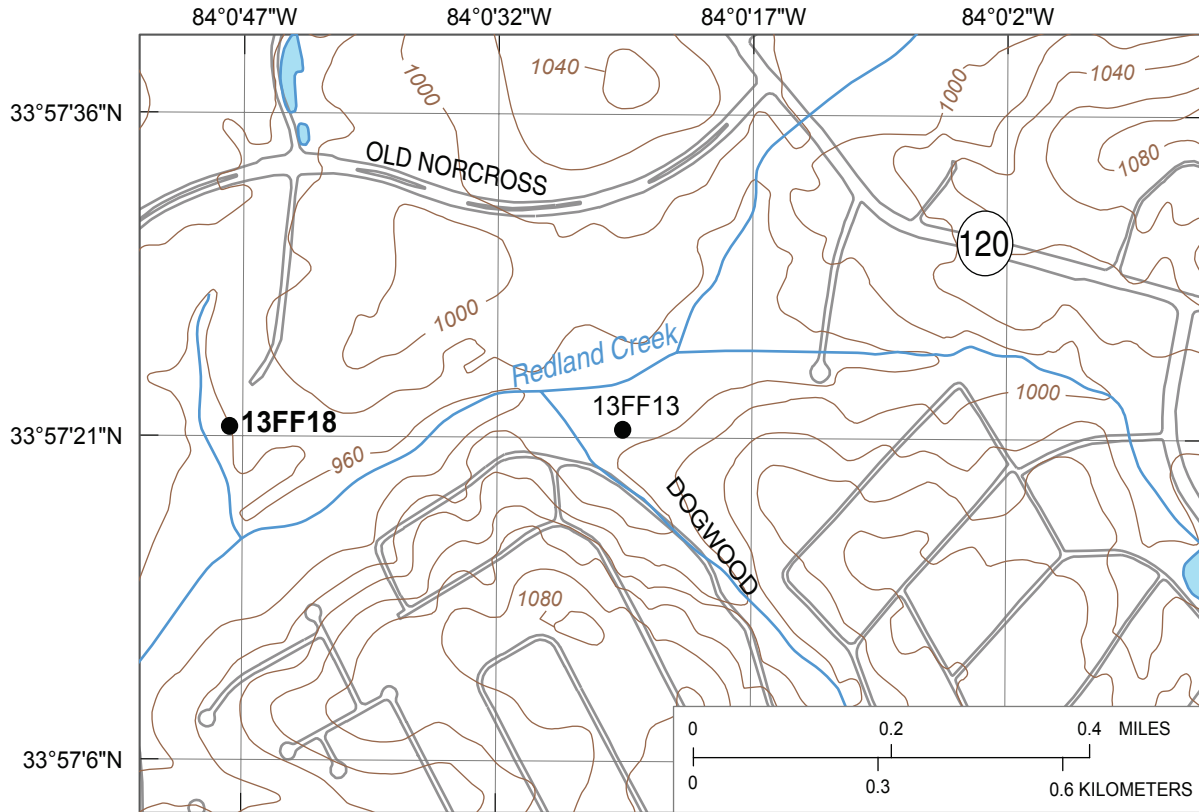
Feet below top of casing (ft btoc)

Comments: Test hole drilled 5/9/01 to 5/10/01 and logged by L. Williams and D.M. Crilley; air-lift yield 100 gpm

with shallow fracs exposed in 6" bore hole; shallow fractures at 41.5 and 54.5 sealed off by

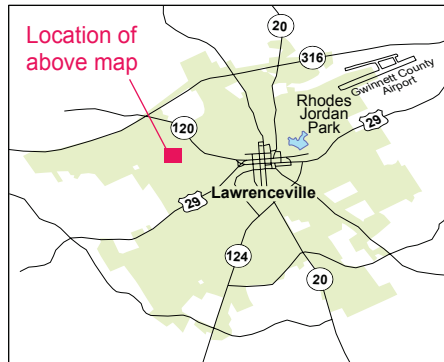
casing; after reaming on 8/1/01 major water-bearing fractures at 82.25-

83.25', 100.8-101.8', 159.1-160.1; air-lift yield 150 gpm after reaming.



Base from U.S. Geological Survey 1:24,000-scale, Luxomni Roads from City of Lawrenceville 1999 digital data

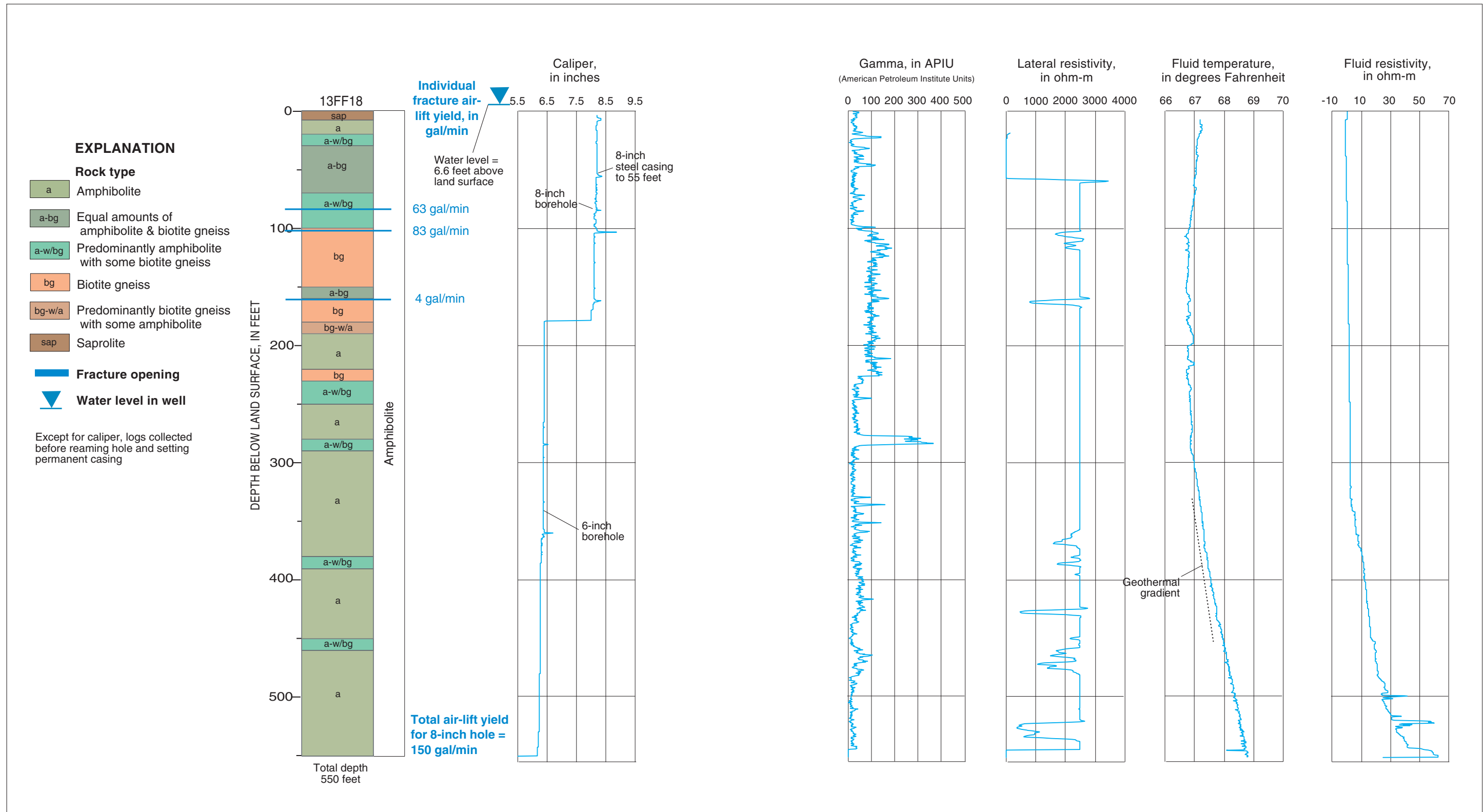
13FF18 ● EXPLANATION
 ● Observation well and site name



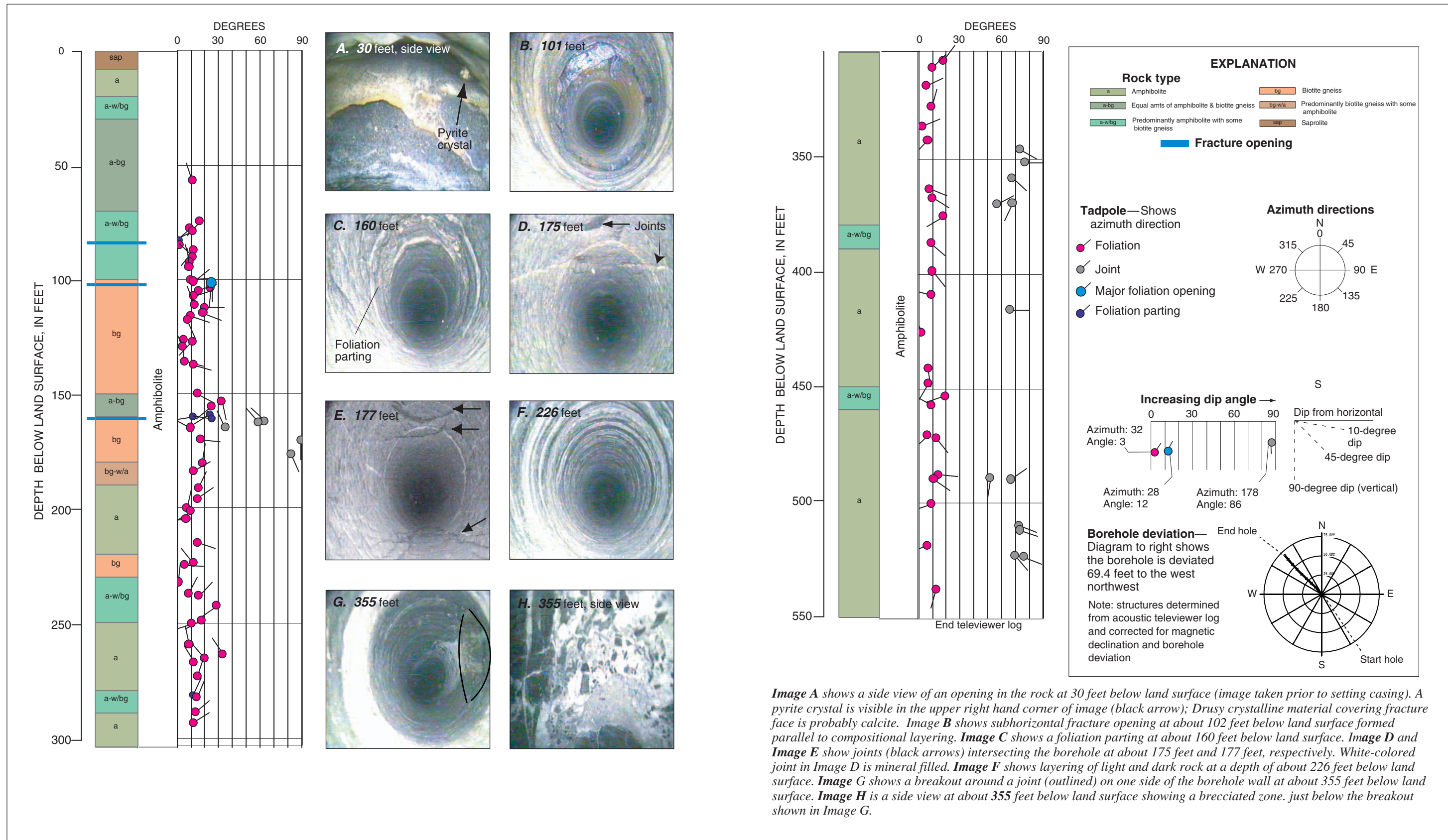
Geophysical log files for well 13FF18 [contained on CD in Supplemental_data\log_archive\logs.zip; ft bls, feet below land surface]

File name	Type	Date	Start depth (ft bls)	Stop depth (ft bls)
13FF18.20011115.ZE01	Combination Tool ^{1/}	11/15/01	-1.2	546.7
13FF18.20010711.ZE01	Combination Tool ^{1/}	07/11/01	-1.7	376.6
13FF18.20011114.AT01	Acoustic Televiwer ^{2/}	11/14/01	172.91	544.8
13FF18.20011114.CT01	Caliper, Three Arm	11/14/01	167.2	227.7
13FF18.20011114.CT02	Caliper, Three Arm	11/14/01	253.7	545.9
13FF18.20011114.CT03	Caliper, Three Arm	11/14/01	2.2	280.4
13FF18.20010711.CT01	Caliper, Three Arm	07/11/01	6.3	376.4
13FF18.20011203.FE03	Electromagnetic Flowmeter	12/03/01	-2.3	169.1
13FF18.20011203.FE01	Electromagnetic Flowmeter	12/03/01	42	170.1
13FF18.20011203.FE04	Electromagnetic Flowmeter	12/03/01	42.2	169.2
13FF18.20011203.FE02	Electromagnetic Flowmeter	12/03/01	44.6	170.4
13FF18.20010711.ZI01	Gamma and EM Induction	07/11/01	1.7	373.6
13FF18.20011203.FEI02	Interpreted EM Flowmeter	12/3/01	47.2	170.2
13FF18.20011203.FEI01	Interpreted EM Flowmeter	12/3/01	2.4	152.2

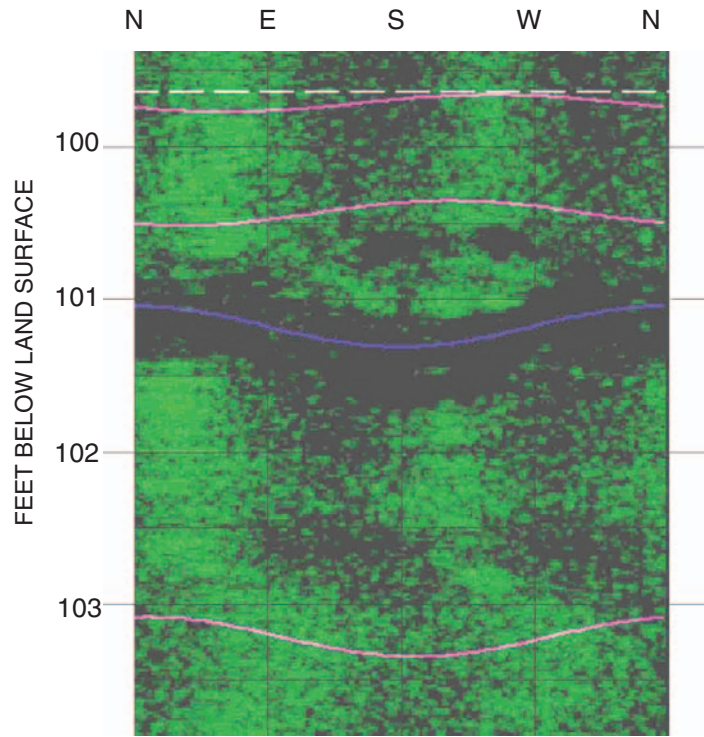
^{1/} Includes gamma, long/short normal resistivity, spontaneous potential, single-point resistance, fluid resistivity, and temperature
^{2/} Does not include trace data, original log is provided in Century binary format under the same file name with extension ".log"



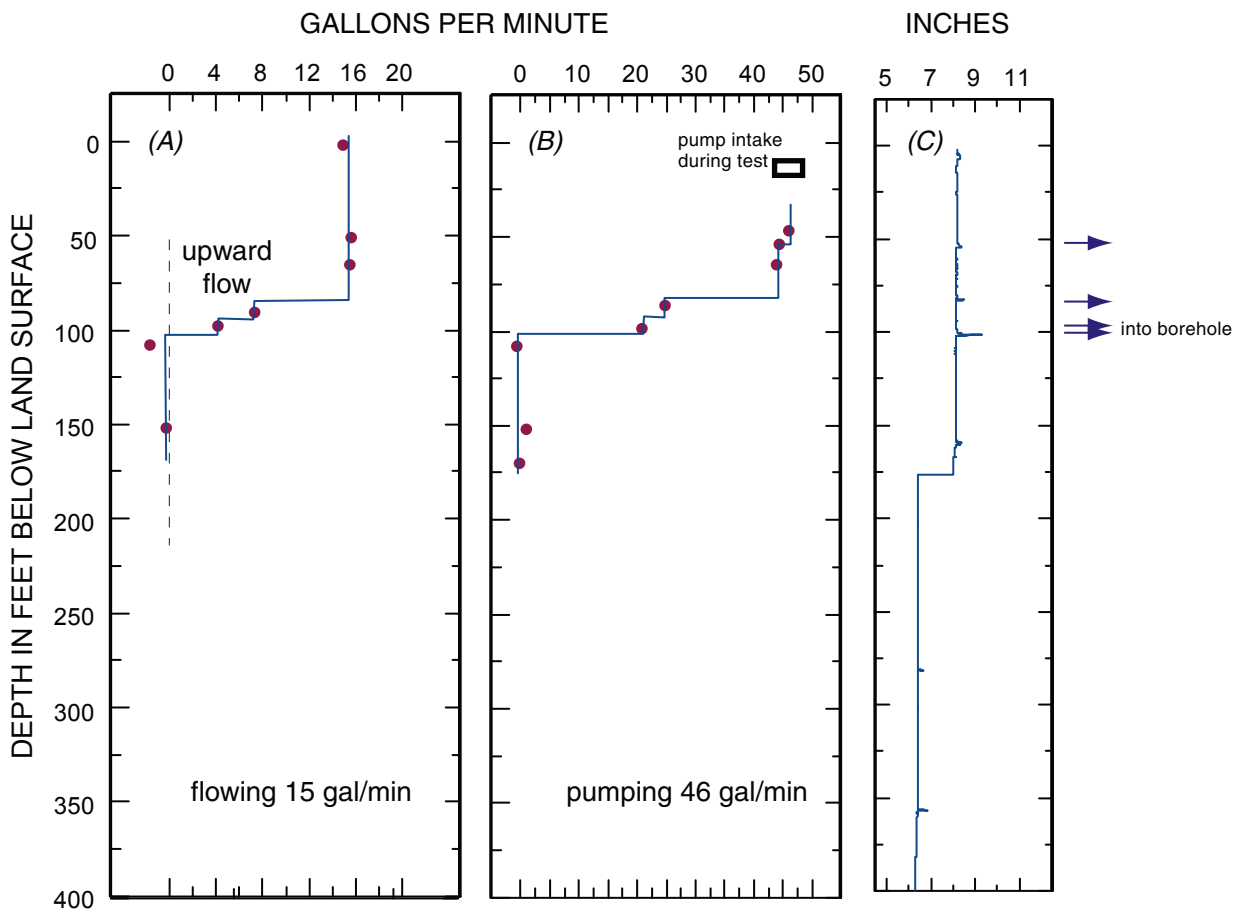
Lithology and borehole geophysical logs for well 13FF18 (Winer Industrial well), Lawrenceville, Georgia.



Structural tadpole plot and downhole camera images for well 13FF18 (Winer Industrial well), Lawrenceville, Georgia.



Projected acoustic televiewer image of borehole wall from well 13FF18. Purple lines trace rock foliation. Blue line traces the center of an opening formed parallel to foliation and compositional layering (dark area is the opening). Note that the foliation above and below fracture dips in opposing directions.



Flowmeter logs from well 13FF18 showing (A) flow in borehole under artesian flowing conditions; left of dashed line indicates downward flow and right of line upward flow, and (B) vertical flow in borehole during pumping 46 gal/min. Caliper log (C) shows peaks where the borehole diameter is enlarged at discrete fracture openings in the bedrock. Right-facing arrows indicate flow into borehole during pumping.

EXPLANATION

- Measured flow
- Interpretation