



WATER-RIGHT DOCKET

Harpers Ferry National Historical Park

Docket No: 1

BOLIVAR HEIGHTS JOB CORPS AREA

Supporting Hydro Data

10-19-1966: report of analysis: no. 661620

PENNIMAN & BROWNE, Inc.
CHEMISTS-ENGINEERS-INSPECTORS
6222 FALLS ROAD
BALTIMORE, MARYLAND 21200

ESTABLISHED 1898
CABLE ADDRESS "DALTEST"
TELEPHONE 827-4151
AREA CODE 301

REPORT OF ANALYSIS

No. 661620 October 19, 1966

Sample Water

From Harpers Ferry Job Corps

Marked For chemical analysis

Odor	None
Appearance	Clear
pH	7.5
Total Solids	318 ppm
Volatile Solids	136 ppm
Non-Volatile Solids	182 ppm
Alkalinity (PP) (as CaCO_3)	0.0 ppm
Alkalinity (MD) (as CaCO_3)	248 ppm
Chlorides	4.5 ppm
Sulfates (SO_4)	11.1 ppm
Alumina (Al_2O_3)	1.4 ppm
Calcium (as CaCO_3)	135 ppm
Magnesium (as CaCO_3)	134 ppm
Total Hardness (as CaCO_3)	269 ppm
Nitrates (NO_3)	12 ppm
Nitrites (NO_2)	0.0 ppm
Free Carbon Dioxide	12 ppm
Carbonate Hardness (as CaCO_3)	257 ppm
Non-Carbonate Hardness (as CaCO_3)	12 ppm
Sodium as Na	2.4 ppm
Potassium as K	1.0 ppm

PENNIMAN & BROWNE, Inc.

LOG OF DRILLED WATER WELL
BOLIVAR HEIGHTS JOB CORPS SITE
Contract No. 14-10-0529-2954

Hole No. 2: July 29, 1965 - August 12, 1965

30' . soft shale in shale (yellow) clay
30 - 35' shale rock interspersed with clay in seams
35 - 42' shale with flint and dolomite interspersed
42 - 58' opening clay filled with slanting rock bottom. Shale stands nearly vertical
58 - 65' Hard shale with occasional other types of rock interspersed
65 - 68' Shale clay
68 - 72' very hard shale. Reamed and set casing
72 - 75' soft shale and clay. Casing dropped
72 - 105' shale clay, water bearing very thick wet clay kept moving into hole. Could not bail out. Tons and tons of slurry.
Superintendent authorized abandonment of hole on August 12, 1965

LOG OF DRILLED WATER WELL

BOLIVAR HEIGHTS JOB CORPS SITE

Contract No. 14-10-0529-2954

Hole No. 3: August 13, 1965

18' shale clay

18 - 36' hard, dense shale

36' lost drill head; could not recover.
Superintendent authorized abandonment of hole

LOG OF DRILLED WATER WELL
BOLIVAR HEIGHTS JOB CORPS SITE
Contract No. 14-10-0529-2954

Hole No. 4: August 16, 1965 -

20' shale clay
20 - 23' hard grey shale
23 - 27' yellow soft shale
27 - 105' grey shale becoming progressively harder
105-135' softer yellow shale
135-145' limestone interspersed with shale
145-153' yellow shale with some limestone
153-160' limestone
160-170' dark blue-dense limestone
170-185' blue-grey limestone. Colors change rapidly
185 a little water
185-200' blue-grey limestone
200 water test - 2 g.p.m.
200-285' hard limestone, changing colors rapidly
285 more water
285-300' sandy lime, water bearing grey with yellow seams
300 pump test 14 g.p.m.
300-314' sandy lime, water bearing
314-325' hard grey dolomite

LOG OF DRILLED WATER WELL
BOLIVAR HEIGHTS JOB CORPS SITE
Contract No. 14-10-0529-2954

Hole No. 4: August 16, 1965 -

66"6" galvanized casing set and grouted in under direction of
State Sanitarian Cooper

After testing, well was sterilized, casing scrubbed with clorox and
well casing head sealed

325' Test pump. Could not pump dry at 30 g.p.m.

Pumped 13 hours at 30 g.p.m. and 7 hours at 50 g.p.m.

Water temperature 54°

Log: Water at rest in well 224'

After 13 hours pumping water at 30 g.p.m. drawdown was 108'

Water stood in casing 116'

After pumping 7 additional hours at 50 g.p.m. drawdown
was an additional 40' or total drawdown of 148'

Water stood in casing 76'

Note: Water coming in casing from above make drawdown tests
uncertain and somewhat unreliable.

Water has good taste; is clear and has no odor. Seems
moderately hard. Will make hardness test.



IN REPLY REFER TO:

EASTERN SERVICE
L54-ESC-LBR

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Harpers Ferry National Historical Park
General Delivery
Harpers Ferry, West Virginia 25425

August 10, 1971

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Ketcham

Memorandum

To: Director, Eastern Service Center
From: Superintendent, Harpers Ferry National Historical Park
Subject: Water Rights Docket No.1 - Harpers Ferry Job Corps

We have Mr. Ketcham's memorandum of July 22, 1971 regarding the above subject.

As you know, the Harpers Ferry Job Corps Center was set up on leased land several miles north of Harpers Ferry. As a result of the decision not to use Bolivar Heights as a site for the Job Corps Center, these test wells on Bolivar Heights were abandoned and no use has been made of them.

We don't seem to have any additional information to submit on this. Should this docket not be closed?

Benjamin H. Davis
Benjamin H. Davis

cc:
Chief, Div. of W/R, WASO
Director, Northeast Region

*Well is on NPS land.
Docket should not be closed*

Stone

*New well at relocated
at JC Center*

Docket Information

Number of Documents in Docket 7
Documents Dated from 8/13/1965 to 8/10/1971
Docket Compiled: 4/11/2011