



WATER-RIGHT DOCKET

Shenandoah National Park

Docket No: 17

WELL. ROCK FISH GAP AREA WATER SYSTEM

State Water Rights Documentation

09-08-1964: water well completion report for rockfish gap, well no. 1

COMMONWEALTH OF VIRGINIA		VDMR - 1137
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT		WWCR - 317
MAILING ADDRESS:	DIVISION OF MINERAL RESOURCES	OFFICE ADDRESS:
Box 3667, University Sta. Charlottesville, Virginia	JAMES L. CALVER, COMMISSIONER	McCormick Road Charlottesville, Virginia
WATER WELL COMPLETION REPORT		
OWNER: National Park Service (Shenandoah Nat'l Park)	Mailing Address: Luray, Virginia	
TENANT: Rockfish Gap, well No. 1	Mailing Address:	
DRILLER: Frank W. Martin Drilling Company	Mailing Address: 619 Brandon Ave., SW, Roanoke, Va.	
WELL LOCATION: County Augusta	Approx. 1 miles North (direction) of	
U.S. Hwy 250-Skyline Drive jct. and 50 feet East (direction) of Skyline Drive		
(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP)		
DATE STARTED: August 20, 1964	DATE COMPLETED: September 3, 1964	
TYPE OF DRILL RIG USED: Air Rotary	TOTAL DEPTH 535 feet	
WATER LEVEL: Stands 376 feet below surface OR		
has NATURAL flow of _____ gallons per minute		
YIELD TEST: Method Pump	HOLE SIZE: 10 inches from 0 to 30.4 feet	
Drawdown 77 feet	6 inches from 30.4 to 535 feet	
Rate 3 gal. per min	_____ inches from _____ to _____ feet	
Duration 24 hrs., _____ min	SCREEN SIZE: _____ inches from _____ to _____ feet	
WATER ZONES: from 510 to _____ feet	_____ inches from _____ to _____ feet	
from _____ to _____ feet	_____ inches from _____ to _____ feet	
from _____ to _____ feet	CASE SIZE: 6-1/4 inches from 0 to 30.4 feet	
WATER: Color Clear Taste Good	_____ inches from _____ to _____ feet	
Odor None Temp _____ °F	_____ inches from _____ to _____ feet	
WELL TO SUPPLY: (check one) Home _____	GROUTING: Method Poured	
Farm _____ Town _____ School _____	Material Concrete Depth 30.4 feet	
Industry _____ Other Park entrance Station	PUMP: Type 1-1/2 HP Submersible	
WATER ANALYSIS AVAILABLE: Yes _____ No *	Capacity 5 gal per min	
DRILL CUTTINGS SAVED: Yes ☒ No _____	Depth of intake 501 feet	
(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: * Partial Chemical Analysis by Virginia Division of Mineral Resources		
(LOG OF WELL) OVER		

LOG

FURNISHED BY: Frank W. Martin Drilling Company DATE: September 8, 1964

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	10	Dirt and Green rock	
10	15	Green rock	
15	20	Brown rock	
20	50	Green rock	
50	60	Green and pink rocks	
60	65	Green and brown rocks	
65	145	Green rock	
145	150	Dark and light-green rocks	
150	170	Green rock	
170	175	Dark and light-green rocks	
175	180	Green and purple rocks	
180	185	Green rock	
185	190	Pink and green rocks	
190	220	Green rock	
220	225	Pink and green rocks	
225	230	Green rock	
230	235	Pink and green rocks	
235	310	Green rock	
310	330	Pink and green rocks	
330	380	Green rock	
380	395	Pink and green rocks	
395	485	Green rock	
485	500	Pink and green rocks	
500	535	Green rock	Water at 510'

(Use additional forms if necessary)

Land History

Form 10-66
(Nov. 1966)

U. S. DEPARTMENT OF THE INTERIOR - BUREAU OF LAND SERVICE

FIXED PROPERTY RECORD

DESCRIPTION OF PROPERTY (Include reference to the location within the Park, how the asset was acquired, name of contractor, etc.)

Locations: Hughes River and Hemlock Springs Parking Overlooks - Central District

One Spring
 One 200 Gallon Concrete Spring Box
 One 10,000 Gallon Concrete Reservoir
 6,750 Linear Feet of Pipe
 Three Stone Masonry Drinking Fountains

Gravity System

Constructed by CCC in 1939, Force Acct.

LINE NUMBER	DATE	PURCHASE		QUANTITY		COST		
		Journal Voucher No.	Other	Unit	No. of Units	Direct Costs	Indirect Costs	Accumulated Cost
1	8/27/53	17-10	System		1			6,300.00
2								
3								
4								
5								
G.L. Acct. No. 100.6		General Classification Utility			Sub-Classification Water System		Region One	State Va.
							Park or Office SNP	

Other Supporting Information



NATIONAL CENTER FOR
HUMAN AND INDUSTRIAL HEALTH

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
National Capital Region
1100 Ohio Drive, S.W.
Washington, D. C. 20242

SEP 28 1967

REF ID: A5031

SEP 22 1967

Regional Director	
Assistant Regional Director	
Administrative	
Technical	
Support	

Handwritten signature

Mr. Jackson E. Price
Regional Director
Southeast Regional Office
National Park Service
Federal Building, Box 10008
400 North Eighth Street
Richmond, Virginia 23240

Dear Mr. Price:

Mr. Dyksterhouse in our Charlottesville Regional Office has forwarded to us for our comments well log reports for several wells in Shenandoah National Park.

These reports and water use needs were discussed with Superintendent Hoskins. Our comments are listed below:

Corners Deadening Area - A new well was drilled in this area. A pump test indicated a yield of 28 gallons per minute. Examination of the chemical analysis indicates a satisfactory water.

Since this area is in a proposed wilderness area, there are no plans for developing facilities in this area at this time.

Dickey Ridge Area - This area contains a large visitor center, 30 site picnic area, and five houses. These facilities will require a considerable amount of water.

Test hole no. 3 - was drilled near the Fox Hollow weir. A pump test showed a final discharge of only two gallons per minute. This volume would not be adequate.

Test hole no. 4 - was drilled 600 feet north-northeast of test hole no. 3. This was a dry hole.

Test hole no. 5 - was drilled 10 feet from test hold no. 1 to a depth of 650 feet. The pump test indicated a flow of 35 gallons per minute for 28 hours, however, the recovery rate was only 2.5 gallons per minute. A study of the draw down curve indicates that this well

should not be pumped at a rate higher than 10 gallons per minute. The chemical analysis indicates that this is not a hard water and has a low iron content. The use of a large storage tank (100,000 gallons) with long pumping periods at a low rate should provide a adequate amount of high quality water.

Rockfish Gap - The area contains an entrance station with four employees. A small rest room and drinking fountain are located in this area.

Rockfish Gap well no. 1 was drilled about 200 yards north of the entrance station to a depth of 535 feet. The 6 inch diameter casing was grouted to 30.4 feet. A pump test for 19 hours produced 2 to 4 gallons per minute. Three gallons per minute was stabilized for five hours.

A chemical analysis of the water indicates a soft water with a nearly natural pH. The iron content is high enough to stain white fixtures and produce a metallic taste but should be palatable enough for drinking purposes.

With a suitable storage tank this well should produce a sufficient quantity of palatable water for this area.

Simmons Gap - This area will contain a submaintenance station with about 30 men, a trailer and one resident home.

A well was drilled to 205 foot depth. A 6 inch casing was grouted to a depth of 43 feet. After test pumping 25 gallons per minute for 21-2/3 hours, the water level remained at 113 feet.

A chemical analysis of this water indicates a soft water, with about 50 ppm alkalinity. Iron is very low. This water is suitably balanced and should be non-corrosive, good for laundry and general use and have a pleasing taste. This well should provide a satisfactory quantity of good tasting water.

Elkwallow Area - This area has a 50 site picnic area, a gift shop, and two comfort stations.

A well was drilled to a depth of 363 feet. The well was cased with 6 inch diameter pipe and grouted to depth of 41 feet. A pump test at

10 gallons per minute was run for 11 hours with the water level remaining at 298 feet. This well should produce 10 gallons per minute for an extended period of time.

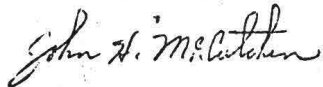
A chemical test indicated that this is a soft water, non-corrosive well, but does contain enough iron to stain fixtures and produce some metallic taste.

With a suitable storage tank, this well should produce a sufficient quantity of water but will not be as high quality as the Simmons Gap well.

If the presence of iron in some of the well water causes a problem at some later date, iron removal filters, or high chlorine dosages may be necessary to eliminate this problem.

If you have any further questions regarding these well supplies, feel free to call on us.

Sincerely yours,



John H. McCutchen
Sanitary Engineer Consultant

**FINAL REPORT
Rockfish Gap Area
Shenandoah National Park**

**National Park Service
Contract No. 14-10-1-134-2**

History

Plans for expansion of facilities at the Rockfish Gap Entrance Station required the availability of a small water supply. Normally it is not difficult to obtain two to five gallons per minute from a drilled well but, as stated in the Preliminary Report of July 28, 1964, local complications reduced the favorability for a successful well near the entrance station. The limited area in which a well site could be selected, the location of the area relative to drainage and recharge, the steep slope, and the lithology and structure of the bedrock were all a combination of negative factors in the selection of a water-well site.

As there is little change of hydrogeologic conditions within the area investigated, and because of the problem of accessibility to drilling sites, it was recommended that a test hole could be located wherever the drilling rig could get more than 20 feet away from the Skyline Drive. Because of the poor conditions, it was unlikely any water would be encountered in the first 250 feet of drilling. Even though it seemed possible to develop a ground-water supply from great depth, it was not considered reasonable to recommend a 700 to 800-foot test hole for such a small water requirement.

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Test-Hole Drilling and Evaluation

The Frank W. Martin Drilling Company, with the aid of a bulldozer, managed to get a drilling rig approximately 50 feet away from the Skyline Drive about 200 yards north of the entrance station. Drilling of the test hole was begun August 20, 1964. After drilling through 30 feet of dirt, weathered rock, and boulders, the Catoctin Formation was encountered and penetrated to the bottom of the test hole at 535 feet. Construction was completed with the grouting of 30.4 feet of 6-inch diameter casing on September 3, 1964.

The principal bedrock penetrated was altered basalt with inter-bedded arkosic, quartzitic and phyllitic strata. These rocks, as mentioned in the Preliminary Report, were found to be overturned, steeply inclined, and relatively non-water bearing. It had been anticipated that any water obtained would be from deep fractures, and until one was penetrated at 510 feet, the test hole was dry.

On September 7 and 8, 1964 a pump test was conducted with a 1.5-horsepower deep-well pump installed 501 feet below ground level. After 19 hours of pumping at discharge rates from 2 to 4 gallons per minute, a final yield of three gallons per minute was maintained for a stabilization period of five hours. Although the measured recovery period was only 30 minutes, the recovery rate of approximately 1.5 feet per minute (or 2.3 gallons per minute) and depth of the aquifer are favorable signs of a permanent yield.

After the pump test had progressed for 16 1/4 hours, a sample of water was collected for study of its quality. A partial chemical analysis

- 3 -

of the sample was conducted by the Virginia Division of Mineral Resources, with the following results (in parts per million, except for pH):

pH	6.8	Phosphate	1.3
Turbidity	60.0	Nitrate	1.0
Total Hardness	35.0	Manganese	0.4
Calcium Hardness	20.0	Iron	0.3
Sulfate	2.5	Nitrite	0.0

Like the final yield, which may be slightly less after several months of pumping, it is probable that the amount of many mineral constituents noted in the analysis will be reduced after the well has been in operation for some time. This is anticipated for turbidity, iron, and manganese in particular, as these are commonly more abundant in water from newly-completed wells in sedimentary and metamorphic rocks.

Recommendations

Unless the size of the Rockfish Gap Area is enlarged, any drilling in this area must penetrate hydrogeologic conditions similar to those in Test Hole No. 1. If future developments require additional ground-water supplies, moderate quantities of water should be available from depths greater than 700 feet. Even so, it is possible the quality may be poor as the water will be obtained from a different rock type.

Enclosed are copies of the Water Well Completion Report form, driller's log, geologic log, drawdown and recovery curves, and Pump Test Data sheets. The records of Rockfish Gap Test Hole No. 1 have been entered in the Virginia Division of Mineral Resources water-well files as Augusta County well No. 317, and the drill samples have been assigned number W-1137 in the permanent well-sample repository.

Virginia Division of Mineral Resources
Charlottesville, Virginia
February 9, 1967

Form 10-194
(Rev. 9/60)UNIT STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEShenandoah National Park
(Park)

Check One:

Monthly
Estimate☐Final
Estimate☒

UNIT PRICE CONTRACT

ESTIMATE NO. 2	FOR (Period) June 17 - September 5, 1964	DATE SEP 29 1964
CONTRACT NO. 14-10-0137-0161	COMPLETION DATE September 23, 1964	EXTENDED DATE None
CONTRACTOR Frank W. Martin/Company, 4117 Cravens Creek Road, SW Roanoke, Virginia		ORIGINAL CONTRACT \$ 26,510.00
PROJECT Drilling, Casing, Grouting, Sealing and Pumping Test Wells		CHANGE ORDERS* \$ 0.00
LOCATION Shenandoah National Park, Virginia		TOTAL CONTRACT \$ 26,510.00

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
1.	3225 Ft.	Drilling test wells of not less than 6" in diameter, including collection of samples, recording and furnishing Driller's Log:		\$6.00/Ft	
		Skyland Well No. 1	500'		3,000.00
		Skyland Well No. 2 (Comers Deadening)	365'		2,190.00
		Lewis Mountain Well No. 1	300'		1,800.00
		Dundo Well No. 1	615'		3,690.00
		Dundo Well No. 2	340'		2,040.00
		Dickey Ridge Well No. 1	200'		1,200.00
		Dickey Ridge Well No. 2	300'		1,800.00
		Rockfish Gap Well No. 1	535'		3,210.00
		Total Item 1	3155		\$18,930.00
2.	500 Ft.	Furnish & install new 6" inside diameter Schedule 40 black steel casing with threaded or welded joints to a minimum depth of fifty feet (50') or six feet (6') into solid rock:		\$3.95/Ft	
		Skyland Well No. 1	55		217.25
		Skyland Well No. 2 (Comers Deadening)	33		130.35
		Lewis Mountain Well No. 1	54		213.30
		Dundo Well No. 1	57		225.15
		Dundo Well No. 2			
		Dickey Ridge Well No. 1	20		79.00
		Dickey Ridge Well No. 2	14		55.30
		Casing removed and hole filled.			

Form 10-194
(Rev. 9/60)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEShenandoah National Park
(Park)

Check One:

Monthly
Estimate ☐Final
Estimate ☒

UNIT PRICE CONTRACT Page 2

ESTIMATE NO. 2	FOR (Period) June 17 - September 5, 1964	DATE
CONTRACT NO. 14-10-0137-0161	COMPLETION DATE	EXTENDED DATE
CONTRACTOR		ORIGINAL CONTRACT \$
PROJECT		CHANGE ORDERS* \$
LOCATION		TOTAL CONTRACT \$

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
		Rockfish Gap Well No. 1	32		126.40
		Total Item 2	265'		\$1,046.75
3.	500 Ft.	Grouting and sealing three-inch (3") annular space around the casings of all production wells:		\$2.00/Ft	
		Skyland Well No. 1	53'		106.00
		Skyland Well No. 2 (Comers Deadening)	30'		60.00
		Lewis Mountain Well No. 1	52'		104.00
		Dundo Well No. 1	55'		110.00
		Dundo Well No. 2	--		---
		Dickey Ridge Well No. 1	--		---
		Dickey Ridge Well No. 2	--		---
		Rockfish Gap Well No. 1	-30'		-60.00
		Total Item 3	220'		\$ 440.00
4.	240 Hrs.	Pump test for minimum of twenty-four (24) hours per production well:		\$15.00/Hr	
		Skyland Well No. 1	24		360.00
		Skyland Well No. 2 (Comers Deadening)	25.5		382.50
		Lewis Mountain Well No. 1	43		645.00
		Dundo Well No. 1	24		360.00
		Dundo Well No. 2	--		---
		Dickey Ridge Well No. 1	24		360.00
		Dickey Ridge Well No. 2	--		---

Form 10-194
(Rev. 9/60)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEShenandoah National Park
(Park)

Page 3

UNIT PRICE CONTRACT

Check One:

Monthly
Estimate ☐Final
Estimate ☒

ESTIMATE NO. 2	FOR (Period) June 17 - September 5, 1964	DATE
CONTRACT NO. 14-10-0137-0161	COMPLETION DATE	EXTENDED DATE
CONTRACTOR		ORIGINAL CONTRACT \$
PROJECT		CHANGE ORDERS* \$
LOCATION		TOTAL CONTRACT \$

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
		Rockfish Gap Well No. 1	24		360.00
		Total Item 4	164.5		\$2,467.50
5.	9 Moves	Moving equipment from one test well site to another well site:		\$65.00/Move	
		Skyland Well No. 1	--		--
		Skyland Well No. 2 (Comers Deadening)	1		65.00
		Lewis Mountain Well No. 1	1		65.00
		Dundo Well No. 1	2		130.00
		Dundo Well No. 2	1		65.00
		Dickey Ridge Well No. 1	1		65.00
		Dickey Ridge Well No. 2	1		65.00
		Rockfish Gap Well No. 1	1		65.00
		Total Item 5	8		\$ 520.00

RECOMMENDED (Project Supervisor) Jerry A. Eubanks, Supervisory Park Engineer	SUMMARY
APPROVED (Contracting Officer) R. Taylor Hoskins, Superintendent	TOTAL TO DATE \$ 23,404.25
DATE SEP 29 1964	LESS RETAINED AMOUNT 0.00
	NET 23,404.25
	LESS PREVIOUS PAYMENTS 11,015.70
	LESS LIQUIDATED DAMAGES 0.00
	DUE THIS ESTIMATE 12,388.55
	% COMPLETED TO DATE 100%

*Show Breakdown on Reverse
U.S. G.O. - 900, THI

(See Reverse for Distribution)

RELEASE OF CLAIMS

For and in consideration of the receipt of final payment in the amount of \$12,388.55, making a final total payed under Contract of \$23,404.25, from the United States of America (hereinafter called the Government) under and pursuant to Contract No. 14-10-0137-0161, for the Drilling, Casing, Grouting, Sealing and Pumping Test Wells, Shenandoah National Park, the undersigned does remise, release, and discharge the Government, its officers, agents, and employees of and from any and all claims and demands whatsoever under and arising from the said contract, except specified claims in stated amounts listed as follows:

No Exceptions

This release has been executed this 26 day of Sept. 1964.

FRANK W. MARTIN DRILLING COMPANY

By *Frank W Martin*

Title *Owner*

154
W16

September 24, 1964

SOUTHEAST REGION	
SEP 30 1964	
Regional Director	
Asst. Reg. Dir., (O)	
Asst. Reg. Dir., (A)	
Asst. Reg. Dir., (CA)	
Asst. to Reg. Dir., (PA)	
Asst. to Reg. Dir., (DI)	
Resource Studies Adv.	

[Handwritten signature]
98111

Frank W. Martin Drilling Company
4117 Cravens Creek Road, SW
Roanoke, Virginia

Gentlemen:

In order that the final payment may be made on your Contract No. 14-10-0137-0161, for the Drilling, Casing, Grouting, Sealing and Pumping Test Wells, Shenandoah National Park, you are requested to execute the original and all copies of the enclosed Release of Claims. You should keep one copy for your files and return the original and other copies to this office.

The requirements for this release is contained in the General Provisions, Standard Form 23A, Clause 7, "Payments to Contractors," subparagraph (d).

If you have any claims against the Government arising under and by virtue of this contract, they should be excepted and described in sufficient detail to identify them and the amounts of each should be stated separately.

If you have no claims, you should have the words "No Exceptions" typed in the space immediately above the last sentence reading "This release has been executed...".

Final payment on your contract will not be made until this release has been signed by you and furnished this office.

Very truly yours,

[Handwritten signature: Jerry B. House]

Jerry B. House
Acting Superintendent
Contracting Officer

Enclosure 1

cc;
WASO
EODC
→SERO

Shenandoah National Park
Contract No. 14-10-0137-0169

Preliminary Report
Rockfish Gap Area
Shenandoah National Park

RECEIVED
SHENANDOAH NATIONAL PARK
JUL 29 '64
Mr. []
Mr. []
Mr. []
Mr. []
Mr. []
Mr. []
Mr. []
Mr. []

General Description

The portion of the Rockfish Gap Area investigated is from the entrance station at milepost 104.4 north along the Skyline Drive to milepost 103. From approximately milepost 104 north to milepost 103 the Park boundaries are 100 feet from and parallel to the Skyline Drive; from milepost 104 to the entrance station the right-of-way is slightly wider.

Topographically, the Skyline Drive is 500 feet below the crest of the Blue Ridge on an extremely steep slope. Land to the east of the Drive rises abruptly from the roadside, and drops off steeply from the west side. In places the east bank is comprised of nearly vertical exposures of rock exceeding 20 feet in height; in other places slight depressions are filled with boulder rubble of considerable size. Access to any portion of the Area to an air rotary drilling rig presents a problem of some magnitude.

The geology of this Area is an overturned fold of the Catoctin formation that includes metamorphosed basaltic lava flows interbedded by thin beds of altered sediments. These rocks dip 35 to 45 degrees to the southeast and strike approximately north 20 degrees

- 2 -

The surface hydrology is one of intermittent runoff; no springs occur within the Area and no creeks cross it. During times of rainfall runoff must be rapid down the steep mountain slope, crossing the formation strike and moving opposite dip too swiftly to allow much recharge to the few fracture openings in the insoluble rocks. As a result, the sub-surface hydrology is undoubtedly limited to meager isolated veinlets of water for several hundred feet in depth.

Drilling Recommendations

The rock formations to be penetrated are resistant, relatively impermeable strata with virtually no water-bearing properties other than fracture openings. These openings certainly do occur, but will probably be above the water table until a depth of 200 feet. Because of poor recharge and the steepness of the dip of the strata, it would not be reasonable to expect an adequate yield (3 gallons per minute) from a test hole less than 250 feet deep.

As there is no observable change in the hydrology or the formation lithology and structure within the specified area, a test hole could be located anywhere a drilling rig can gain access to the steep, narrow right-of-way.

Virginia Division of Mineral Resources
Charlottesville, Virginia

← July 28, 1964

U.S. No. 10-302
10-10-60

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EMERGENCY ACTIVITIES

Symbol No. **MP-1**

JOB APPLICATION AND COMPLETION RECORD

Name of job **One** State **Virginia** Area **Shenandoah National Park**
 Name of job **Water Pipe Line** Form 7 No. **143** Job No. **106**
 Name of job **Hughes River Parking Overlook** Master plan No. **5004-1-1**
5006-1-1

BLOCK A - PROPOSED WORK

NUMBER OF PERIODS REQUIRED TO COMPLETE JOB	WORK COMPLETED			ESTIMATED COSTS			TOTAL
	NOT	NUMBER OF PERIODS	MANUAL UNITS	LABOR	MATERIALS	EQUIPMENT	
1. 1st period		1	1,500		1,800.00		1,800.00
2. 2nd period		1	1,500		1,800.00		1,800.00
TOTAL		2	3,000		3,600.00		3,600.00

BLOCK B - LABOR SUMMARY

TYPE OF LABOR	UNSKILLED	INTERMEDIATE	SKILLED	PROFESSIONAL AND TECHNICAL	TOTAL
1. 1st period					
2. 2nd period					
TOTAL					

Submitted by **Theodore F. Smith**

Title **Acting Superintendent** Date

BLOCK C - CLEARANCE

PARK AUTHORITY	DATE	PROJECT OFFICIAL	DATE	INSPECTOR	DATE

BLOCK D - COMPLETION RECORD

WORK ACCOMPLISHED			TOTAL ENCUMBRANCES COMPLETED JOB		
DATE OF COMPLETION	UNIT	NUMBER OF PERIODS	LABOR	EQUIPMENT	TOTAL
October, 1957	14,000	1,500	1,750.00		1,750.00
					41.60

Approved by **W. V. S. S. S. S.** Title **Acting Superintendent** Date **10/1/57** Release date
 JUSTIFICATION ON BACK OF SHEET

Justification:

The purpose of this job was to supply water by gravity from a spring located about 150 feet higher than the comfort station which it serves. About midway of the line a 10,000-gallon storage reservoir was constructed, thereby insuring a sufficient quantity of water even at low spring flows. Pipe was laid 3-4 1/2 feet deep because of an excessive quantity of rock and the ~~fact~~ fact that the comfort station is not used during the winter months, and the line can therefore be drained.

Form No. 10-352
(May 1937)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EMERGENCY ACTIVITIES

Symbol No. WP-1

JOB APPLICATION AND COMPLETION RECORD

Region One State Virginia Area Shenandoah National Park
Name of job Pipe Line Form 7 No. 143 Job No. 12
Location of job Hemlock Spring Master plan No. _____ Working plan No. _____

BLOCK A—PROPOSED WORK

NUMBER OF PERIODS REQUIRED TO COMPLETE JOB ()	WORK CONTINGENT			ESTIMATED COSTS			TOTAL
	UNIT	NUMBER UNITS	MAN-DAYS ~~MAN-HOURS~~	LABOR	MATERIALS	EQUIPMENT	
Previously approved	1 in ft	290	100		\$40.00		\$40.00
Original or additional request	x x x x	290	100		\$40.00		\$40.00
TOTAL							

BLOCK B—LABOR SUMMARY

TYPE OF LABOR	UNSKILLED	INTERMEDIATE	SKILLED	PROFESSIONAL AND TECHNICAL	TOTAL
Number of man-hours					
Cost of labor *					

Submitted by James R. Lassiter Title Superintendent Date 11/23/38

BLOCK C---CLEARANCE

PARE AUTHORITY	DATE	PROCUREMENT OFFICER	DATE	INSPECTOR	DATE

BLOCK D—COMPLETION RECORD

WORK ACCOMPLISHED				TOTAL ENCUMBRANCES COMPLETED JOB				
DATE OF COMPLETION	UNIT	NUMBER UNIT	MATERIALS EXPENSE	LABOR	MATERIALS	EQUIPMENT	TOTAL	BALANCE
Sept., 1936	1 in ft	290	77		\$37.70		\$37.70	\$2.30

Approved by W. A. S. S. S. Title Test Card Date Feb 10 1953 Release date 4-10-53
(JUSTIFICATION ON BACK OF SHEET)
U. S. GOVERNMENT PRINTING OFFICE

Justification:

In order to supply the Hemlock Spring Parking Overlook with drinking water it was necessary to lay 290 feet of G.W.I. pipe from the Spring to the fountain. This is a gravity supply and is laid in the walk which makes it most accessible for repairs. The spring is about fifteen feet higher than the fountain and is of such size that it supplies the Comfort Station and the Drinking Fountains in the Hughes River Parking Overlook as well as the fountain in Hemlock Spring Parking Overlook.

Form No. 10-342
(May 1957)UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EMERGENCY ACTIVITIESSymbol No. **NP-10**

JOB APPLICATION AND COMPLETION RECORD

Region **One** State **Virginia** Area **Shenandoah National Park**Name of job **Water Fountain,**Form 7 No. **147** Job No. **99**Location of job **Kauleck Spring Parking Overlook** Master plan No. **894-1157** Working plan No. **894-1157-1**

BLOCK A—PROPOSED WORK

NUMBER OF PERIODS REQUIRED TO COMPLETE JOB ()	WORK CONTEMPLATED			ESTIMATED COSTS			TOTAL
	UNIT	NUMBER UNITS	MAS-DAYS REQUIREMENT	LABOR	MATERIALS	EQUIPMENT	
Previously approved	No.	1	60	15.00	33.00		48.00
Original or additional request							
TOTAL	X X X	1	60	15.00	33.00		48.00

BLOCK B—LABOR SUMMARY

TYPE OF LABOR	UNSKILLED	INTERMEDIATE	SKILLED	PROFESSIONAL AND TECHNICAL	TOTAL
Number of man-hours					
Cost of labor					

Submitted by **Theodore T. Smith**Title **Acting Superintendent**

Date

BLOCK C—CLEARANCE

PARK AUTHORITY	DATE	PROCUREMENT OFFICER	DATE	INSPECTOR	
					1

BLOCK D—COMPLETION RECORD

WORK ACCOMPLISHED				TOTAL ENCUMBRANCES COMPLETED JOB			
DATE OF COMPLETION	UNIT	NUMBER UNITS	MAS-DAYS REQUIREMENT	LABOR	MATERIALS	EQUIPMENT	BALANCE
August, 1958	No.	1	60	15.75	18.50		34.25
							3.75

Approved by

Title

Date

Release date

(JUSTIFICATION ON BACK OF SHEET)

U. S. GOVERNMENT PRINTING OFFICE 6-35211

Justification:

The fountain is of stone masonry and is built into the guardwall at Kauleck Spring parking area. The water is piped from a spring about two hundred feet distant. The area has proven very popular as the parking area was erected particularly for watering accommodations.

The fountain was built by Camp NP-10 and in accordance with approved plan SHE-1185-A.

Docket Information

Number of Documents in Docket 22

Documents Dated from 7/28/1964 to 9/15/1967

Docket Compiled: 6/17/2011