



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Cedar Breaks National Monument, Utah

L54-CB
IN REPLY, REFER TO:
L54-CB

October 23, 1957

Memorandum

To: Superintendent, Zion National Park
From: Supervisory Park Ranger in Charge, Cedar Breaks
Subject: Measurements of flow of water, Alpine Pond, Cedar Breaks

The flow of water at the Alpine Pond Spring in Cedar Breaks National Monument was measured at intervals between July 3 and October 5. A six inch Free Flow Parshall Measuring Flume was installed at 3:00 PM on July 3 under the direction of Engineer M. W. Wilcox.

It is obvious that a three inch flume would have given more accurate measurements but the larger flume was the smallest which could be obtained in time to install and begin spring flow readings near the first of July.

The figures in the attached table are from Bulletin #5, Measurement of Irrigation Water by Eldon M. Stock and published by the Utah State Engineering Experiment Station and the Utah Cooperative Extension Service. The Parshall Flume table was used to record figures for readings above .10 feet upper head (Ha). Figures below .10 were calculated by formula. Readings during the season were made at intervals practical with the change in flow of the spring. Snow with rapid melting began to fall after October 10 making readings impractical after that time.

Noted:

Paul R. Franke

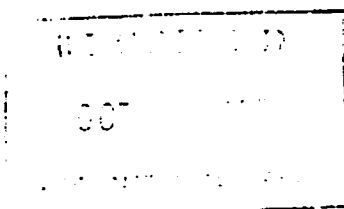
Paul R. Franke, Supt., 10/23/57

wk

attachment

William T. Krueger
William T. Krueger
Supervisory Park Ranger

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Copies
to
5. Reg.
3
10/24/57
J.J.



Free Flow Through Parshall Measuring Flume at Alpine Pond Spring

Cedar Breaks National Monument

July 3 to October 5, 1957

<u>Date</u>	<u>Upper head Ha - feet</u>	<u>Flow in Cubic feet per second</u>	<u>Flow in Gallons per minute</u>
7/3/57	0.13	0.08	36.00
7/5/57	0.12	0.07	31.50
7/7/57	0.12	0.07	31.50
7/9/57	0.11	0.06	27.00
7/11/57	0.11	0.06	27.00
7/13/57	0.10	0.05	22.50
7/15/57	0.10	0.05	22.50
7/17/57	0.10	0.05	22.50
7/19/57	0.10	0.05	22.50
7/21/57	0.09	0.045	20.25
7/23/57	0.09	0.045	20.25
7/27/57	0.085	0.040	18.00
7/31/57	0.085	0.040	18.00
8/3/57	0.085	0.040	18.00
8/7/57	0.075	0.034	15.30
8/11/57	0.070	0.031	13.95
8/15/57	0.080	0.038	17.10
8/19/57	0.080	0.038	17.10
8/23/57	0.080	0.038	17.10
8/27/57	0.080	0.038	17.10
8/31/57	0.080	0.038	17.10
9/8/57	0.080	0.038	17.10
9/14/57	0.070	0.031	13.95
9/20/57	0.060	0.024	10.80
9/27/57	0.060	0.024	10.80
10/5/57	0.060	0.024	10.80

Alternate snowing and melting intermittently after this date and no readings were impractical.