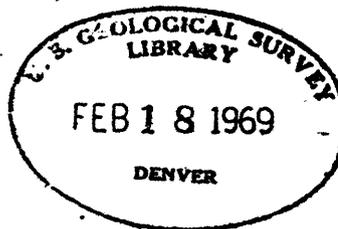


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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Maps showing locations of holes drilled in 1949 through 1955
by U. S. Geological Survey, Long Park and adjacent areas
in the southern part of the Uravan district,
Montrose County, Colorado

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Open-file Report
1969



This report is preliminary and has not
been edited or reviewed for conformity
with U. S. Geological Survey standards
or nomenclature.

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Between April 21, 1949, and August 20, 1955, the U. S. Geological Survey explored the southern part of the Uravan district for uranium-vanadium deposits with 1,400 diamond-drill holes that totaled 489,567 feet. The explored area includes Long Park and adjoining ground on the north, east, and southeast; Third Park and adjoining bench; and the Second Park bench, Montrose County, Colo. Most known uranium-vanadium deposits in the explored area are in sandstone units in the upper part of the Salt Wash Member of the Morrison Formation of Jurassic age. The drilling was part of a program of exploration conducted on behalf of the Division of Raw Materials of the U.S. Atomic Energy Commission.

The maps comprise an index map (fig. 1) and 6 other maps showing locations of drill holes (figs. 2 through 7). Logs of 720 holes on land indicated on the maps as withdrawn for use of the Atomic Energy Commission are on open file at the Commission's Grand Junction Office. Logs of the 680 holes identified on the maps as outside these AEC-withdrawn areas may be inspected at the U. S. Geological Survey Library, Building 25, Federal Center, Denver, Colo. 80225, and at the U. S. Atomic Energy Commission Office, Grand Junction, Colo. 81501.

Additional Information About Logs

The additional information contained in this supplement is useful in interpreting the GEOLOGIC AND ASSAY LOGS form.

Collar elevation.--Generally this is the elevation above mean-sea level of the drill-hole collar. The elevation in the space before T is temporary, that in the space before P is permanent. Permanent elevations are determined by plane-table methods; temporary elevations are determined by less accurate means.

Summary of log.--Each of the terms "favorable," "semifavorable," or "unfavorable" sums up the geologic factors that determine whether or not the hole is in ground considered favorable for the presence of ore. For instance, the term "favorable" indicates that the hole is in ground that shows most of the criteria that are present near ore deposits. A "favorable" hole is not necessarily one that is in mineralized rock.

Core recovery.--This is noted only where it is less than 80 percent. Poor recovery may mean that the log presents an incomplete geologic record of the unit of low recovery.

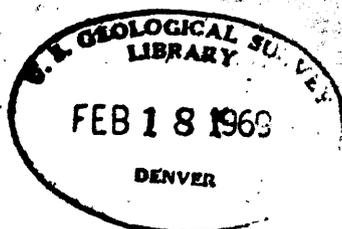
Field estimate.--The column headed " U_3O_8 " gives the uranium oxide values based on visual estimates and portable geiger-counter readings made by the field geologist. The column headed " V_2O_5 " gives vanadium oxide values based on visual estimates made by the field geologist.

Assays.--The values given in the columns headed "lab assay (%)" are chemical assays, with the exception of those preceded by "e." Chemical assays for uranium are determined only for those samples that register 0.045 percent or more eU_3O_8 . Values preceded by "e" are determined by a laboratory gamma-ray scanner; they represent equivalent U_3O_8 values of rock samples sent in from the field. Gamma-ray values determined in the laboratory are generally more accurate than field estimates.

In the column headed " γ -ray, $\%eU_3O_8$," the values given are determined from a gamma-ray field log, obtained by logging the drill hole with a geiger-counter probe. Gamma-ray values are given only for samples that register 0.010 percent or more U_3O_8 .

Where notation about gamma-ray logging is lacking it is assumed that the hole was not logged radiometrically.

γ -ray log.--This column may be disregarded. See γ (gamma)-ray sub-column on lower part of log sheet.



ABBREVIATIONS FOR GEOLOGIC AND ASSAY LOGS

<u>Rock name</u>	<u>Mineral name</u>	<u>Color description</u>
CG - conglomerate or conglomeratic	Qtz - quartz	Wh - white
SS - sandstone	Gyp - gypsum	Br - brown
MS - mudstone	Py - pyrite	R - red
ST - siltstone	Chpy - chalcopyrite	Gy - gray
CS - claystone	Lim - limonite	Bl - blue
LS - limestone	Hem - hematite	Gn - green
CH - chert or cherty	Cal - calcite	Yw - yellow
SH - shale	Carn - carnotite	Bk - black
CL - clay	Fdspr - feldspar	Pp - purple
QTZT - quartzite		L - light
		D - dark
		M - medium

Chemical abbreviations

Cbn - carbon
 For all other elements use the standard chemical symbols, Cu for copper, Fe for iron, Mn for manganese, etc.

Relative abundance
 (use only for accessory minerals, carbon and mudstone in sandstone)

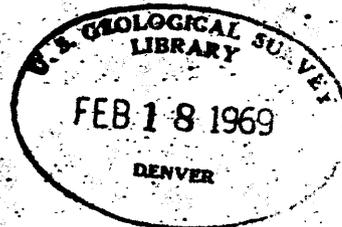
- N - none
- S - sparse
- A - abundant

Grain sizes

<u>Wentworth scale (modified)</u>	<u>Millimeters</u>
VF - very fine	0.060 - 0.125
F - fine	0.125 - 0.210
MF - medium fine	0.210 - 0.300
M - medium	0.300 - 0.420
MC - medium coarse	0.420 - 0.600
C - coarse	0.600 - 1.000
VC - very coarse	1.000 - 2.000

Punctuation

- and
- / - over
- // - alternating with



Classification of mudstone in sandstone

- P - pebbles, round or angular fragments of pebble size (more than 4 mm or 0.15 in.).
- G - granules (less than 4 mm or 0.15 in., and more than 2 mm or 0.08 in.).
- Fk - flakes, paper thin, with two longer dimensions.
- Sm - seams, less than 0.1 ft. thick.
- Fm - films, usually along lamination or cross-lamination planes.
- Int - interstitial.

Miscellaneous abbreviations

- | | |
|--|---|
| OBN - overburden | fav - favorable; semifav - semifavorable; |
| Bby - Barnaby (gamma-ray logging instrument) | unfav - unfavorable |
| grad - gradational | alt - altered; altn - alteration |
| incl - inclined | frac - fracture; fractd - fractured |
| calc - calcareous | lam - laminations or laminae; lamtd - laminated |
| mot - mottled | xl - crystal; xln - crystalline |
| qtzc - quartzitic | min - mineral; minzn - mineralization |
| frag - fragment | cem - cement; cemtd - cemented; cemtn - cementation |
| msv - massive | conc - concentrated; concn - concentration |
| disc - discard or discarded | cond - condense or condensed |
| op - opaque or opaques | bdg - bedding; itbd - interbedded; x-bd - crossbed; |
| H - high | x-bdg - crossbedding; x-bdd - crossbedded |
| L - low | ox - oxide; oxizd - oxidized |
| Tr - trace | OBSS - ore-bearing sandstone |
- use only for U₃O₈ and V₂O₅

ABBREVIATIONS FOR GEOLOGIC AND ASSAY LOGS--Continued

Symbols for stratigraphic units

- Kbc - Burro Canyon Formation
- Jmb - Brushy Basin Member of the Morrison Formation
- Jms - Salt Wash Member of the Morrison Formation
- Jmr - Recapture Member of the Morrison Formation
- Js - Summerville Formation
- Je - Entrada Sandstone

