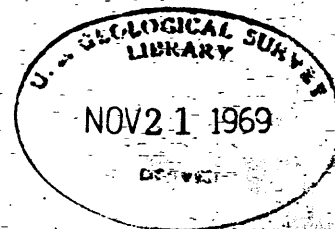


(200)
R290
no. 1329

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Maps showing locations of holes drilled in 1955
by U.S. Geological Survey, Clay Gulch area,
San Juan County, Utah



OFR 69-302

Open-file report

1969

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

Maps showing locations of holes drilled in 1955

by U.S. Geological Survey, Clay Gulch area,

San Juan County, Utah

Between October 19, 1955, and November 26, 1955, the U.S. Geological Survey drilled 9 holes in Clay Gulch area, San Juan County, Utah, to obtain geologic information that could be used in exploring for uranium-bearing deposits in the Shinarump Member of the Upper Triassic Chinle Formation.

The accompanying maps of the area explored are an index map (fig. 1) and another showing locations of holes drilled (fig. 2). Logs of holes identified on the location map 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.

Rock name	Mineral name	Color description
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	
Wentworth scale (modified)	Millimeters
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

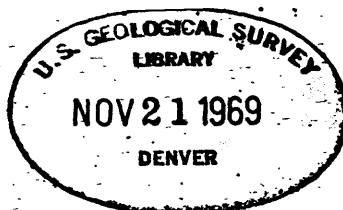
OBV - overburden	fav - favorable; semifav - semifavorable;
Bby - Barnaby (gamma-ray logging instrument)	unfav - unfavorable
grad - gradational	alt - altered; altn - alteration
incl - inclined	frac - fracture; fractd - fractured
calc - calcareous	lam - laminations or laminae; lamtd - laminated
mot - mottled	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; oxdzi - oxidized
Tr - trace	OBSS - ore-bearing sandstone

/

ABBREVIATIONS FOR GEOLOGIC AND ASSAY LOGS--Continued

Symbols for stratigraphic units

~~Chl~~ = Chinle Formation, lower part
~~Sh~~ = Shinarump Member of Chinle Formation
~~Em~~ = Moenkopi Formation



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.

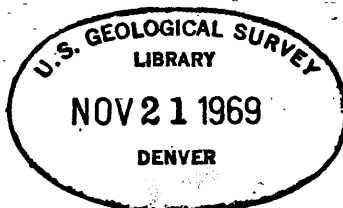
Field estimate.---The column headed "U₃O₈" gives the uranium oxide values based on visual estimates and portable geiger-counter readings made by the field geologist. The column headed "V₂O₅" gives vanadium oxide values based on visual estimates made by the field geologist.

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 eU₃O₈. Values preceded by "e" are determined by a laboratory gamma-ray scanner; they represent equivalent U₃O₈ 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, %eU₃O₈," 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 U₃O₈.

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.



COLORADO PLATEAU DISTRICT

Claim: _____
Date completed: _____
Date logged: _____
Logged by: _____

Graphic
log

GEOLOGICAL SURVEY
 LIBRARY
 NOV 21 1969
 DENVER

[illegible]

GPO 8350 41

Hole No. CC-3

Drill-hole No. CG-4 (25)
 Inclination VERTICAL Bearing
 Total depth 251.0
 Collar elev. CLAY BLANCH T 405.00 P
 Area

Map coord (T) _____
 Map coord (P) _____
 Sec. 15 T. 40S R. 13E
 Co., State _____

Claim _____
 Date completed 10-29-55
 Date logged 10-30-55
 Logged by _____

Rev. 11/4/55 WZK
 Ed

Summary of log Fluvial; OBSS from 237 to 249 thick 10; SS color 405; MS 55; Cbn. 5
 Graphic log 0.0

LITHOLOGIC LOG

Depth	Rec ft.	Lab assay (%)		Sample		Lab assay (%)		Interval		Y-ray		Y-ray (%e) or		Field est	
		U ₃ O ₈ *	V ₂ O ₅ /Cu	CaCO ₃	Base	Thick	U ₃ O ₈ *	V ₂ O ₅ /Cu	CaCO ₃	Base	Thick	%e U ₃ O ₈	Base	Thick	U ₃ O ₈ V ₂ O ₅
120.5	4.5	130.5	134.5												
134.5	7.2	135.7	5.2												
143.7	8.5	161.0	25.3												
152.8	9.3	170.8	17.8												
162.0	8.5	190.7	11.9												
171.0	9.9	205.3	14.6												
180.0	10.0	239.2	33.9												
190.0	10.0														
200.0	10.0	249.2	10.0												
210.0	10.0	249.9	0.7												
220.0	10.0	251.0	1.1												
230.0	10.0														
240.0	10.0														
250.0	10.0														
260.0	10.0														
270.0	10.0														
280.0	10.0														
290.0	10.0														
300.0	10.0														
310.0	10.0														
320.0	10.0														
330.0	10.0														
340.0	10.0														
350.0	10.0														
360.0	10.0														
370.0	10.0														
380.0	10.0														
390.0	10.0														
400.0	10.0														
410.0	10.0														
420.0	10.0														
430.0	10.0														
440.0	10.0														
450.0	10.0														
460.0	10.0														
470.0	10.0														
480.0	10.0														
490.0	10.0														
500.0	10.0														
510.0	10.0														
520.0	10.0														
530.0	10.0														
540.0	10.0														
550.0	10.0														
560.0	10.0														
570.0	10.0														
580.0	10.0														
590.0	10.0														
600.0	10.0														
610.0	10.0														
620.0	10.0														
630.0	10.0														
640.0	10.0														
650.0	10.0														
660.0	10.0														
670.0	10.0														
680.0	10.0														
690.0	10.0														
700.0	10.0														
710.0	10.0														
720.0	10.0														
730.0	10.0														
740.0	10.0														
750.0	10.0														
760.0	10.0														
770.0	10.0														
780.0	10.0														
790.0	10.0														
800.0	10.0														
810.0	10.0														
820.0	10.0														
830.0	10.0														
840.0	10.0														
850.0	10.0														
860.0	10.0														
870.0	10.0														
880.0	10.0														
890.0	10.0														
900.0	10.0														
910.0	10.0														
920.0	10.0														
930.0	10.0														
940.0	10.0														
950.0	10.0														
960.0	10.0														
970.0	10.0														
980.0	10.0														
990.0	10.0														
1000.0	10.0														

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 NOV 21 1969
 DENVER

* Assays marked "e" are from lab gamma-ray readings

GPO 8356 41

Hole No.

CG-4

U.S. GEOLOGICAL SURVEY
COLORADO PLATEAU DISTRICT

Map coord (T) _____
 Map coord (P) _____
 Sec. 14 T. 42 N. R. 23 W.
 Co., State CA CA

Claim _____
Date completed 11-9-55
Date logged 11-15-55
Logged by ESB

Graphic
log

S. GEOLOGICAL SURVEY
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DENVER

[illegible]

*Assays marked "e" are from lab gamma-ray readings

GP0 835041

Hole No. CE-5

GEOLOGIC AND ASSAY LOGS

COLORADO PLATEAU DISTRICT

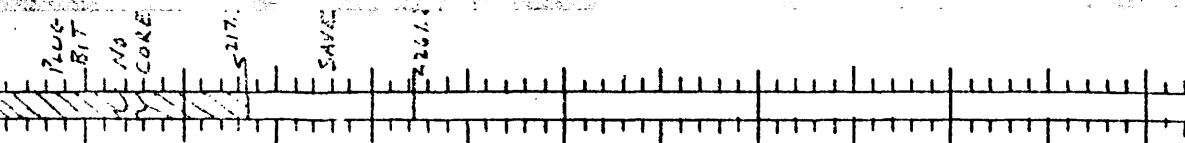
Drill-hole No. CG-6
 Inclination VERTICAL Bearing 000
 Total depth 261.2
 Collar elev. 7100 T 13E P 13E
 Area CLAY CREEK

Map coord (T) 12
 Map coord (P) 40S
 Sec. 13E
 Co., State SAN JUAN CO UTAH

Claim None
 Date completed 11-12-55
 Date logged 11-13-55
 Logged by F.S.S.

Summary of log UNEXPLORED; OBSS from 254 to 261 thick 2.7; SS color 2.5; MS 2.5; Cbn. N

LITHOLOGIC LOG



Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
217.2	4.2	217.2	217.2		MS/ST	R		S; MICA	N		PLUG BIT - NO CORE
222.2	3.6	237.3	20.1		MS	LG		S; BK; OP	N		
226.6	4.1	241.1	3.8		SS	LG		S; BK; OP	N		
230.7	3.3	244.8	3.7		MS/ST	GY/LLY	F	S; BK; OP	N		
234.0	1.4	254.7	9.9		SS	LLY	VF	S; BK; OP	N		
235.8	3.1	256.2	1.5		MS	GY	F/M	S; BK; OP	N		MOENAU PL. FM.
238.9	4.3	258.4	2.2		MS	RR		S; BK; OP	N		
244.8	9.1	261.2	2.8		MS	RR		S; BK; OP	N		
253.9	7.3										
261.2											

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Sample	Thick	U3O8	Lab assay (%)	CaCO3	Sample	Thick	U3O8	Lab assay (%)	Interval	Thick	%e U3O8	Y-ray	Y-ray (%)	Base	Thick	%U3O8	V2O5
Base					Base				Base								
									239.3					254.8			
									240.6	1.3	0.012			255.8	1.0	<0.005	
									247.7								
									248.9	1.2	<0.005						
									250.1	1.2	0.012						
									252.4	2.3	<0.010						
									252.8	0.4	<0.010						
									254.0	1.2	<0.010						
									254.8	0.8	<0.010						

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. CG-6

Claim		
Date completed	11-23-55	Rev
Date logged	11-24-55	Ed
logged by	ESS	

19

DRILL LOG

Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
194.0	-10.0	194.0	194.0								PLUG BIT - NO CORE
204.0		204.0	10.0		MS	RSS			N		MATERIAL FM
6.0	10.0										PLUGGED THROUGH CONTACT
10.0 / 20.0 =	100%										

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[illegible]

Hole No.	CE-5
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U.S. GOVERNMENT PRINTING OFFICE
COLORADO PLATEAU DISTRICT

Map coord (T) _____
Map coord (P) _____
Sec. 12 T. 40 S. R. 13 E.
Co., State Ark. 17794

Claim _____
Date completed 11-23-55
Date logged 11-28-55
Logged by _____

Summary of log UNFAVORABLE ; OBSS from 2.32 to 2.33 "thick" 1.0 ; SS color LEY ; MS GY ; Cbn. N

Graphic
log

LITHOLOGIC LOG

[illegible]
$$\frac{41\%}{11} = 3.7$$

U.S. GEOLOGICAL SURVEY
LIBRARY
NOV 21 1969
DENVER

[illegible]

* Assays marked "e" are from lab gamma-ray readings

GP0 8350 41

Hole No. CE-3

U.S. GEOLOGICAL SURVEY
COLORADO PLATEAU DISTRICT

Map coord (T) _____
 Map coord (P) _____
 Sec. 7 T. 40 S. R. 17 E.
 Co., State SAN JUAN Co., N.M.

Claim _____
Date completed 11-26-55
Date logged 11-28-55
Logged by ESS

Graphic
log

U.S. GEOLOGICAL SURVEY
LIBRARY
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DENVER

[illegible]

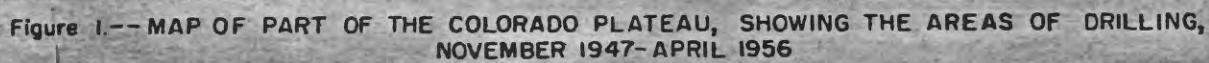
* Assays marked "e" are from lab gamma-ray readings

CPC 815041

Hole No. CC-2

69-302

**OPEN FILE
1969**



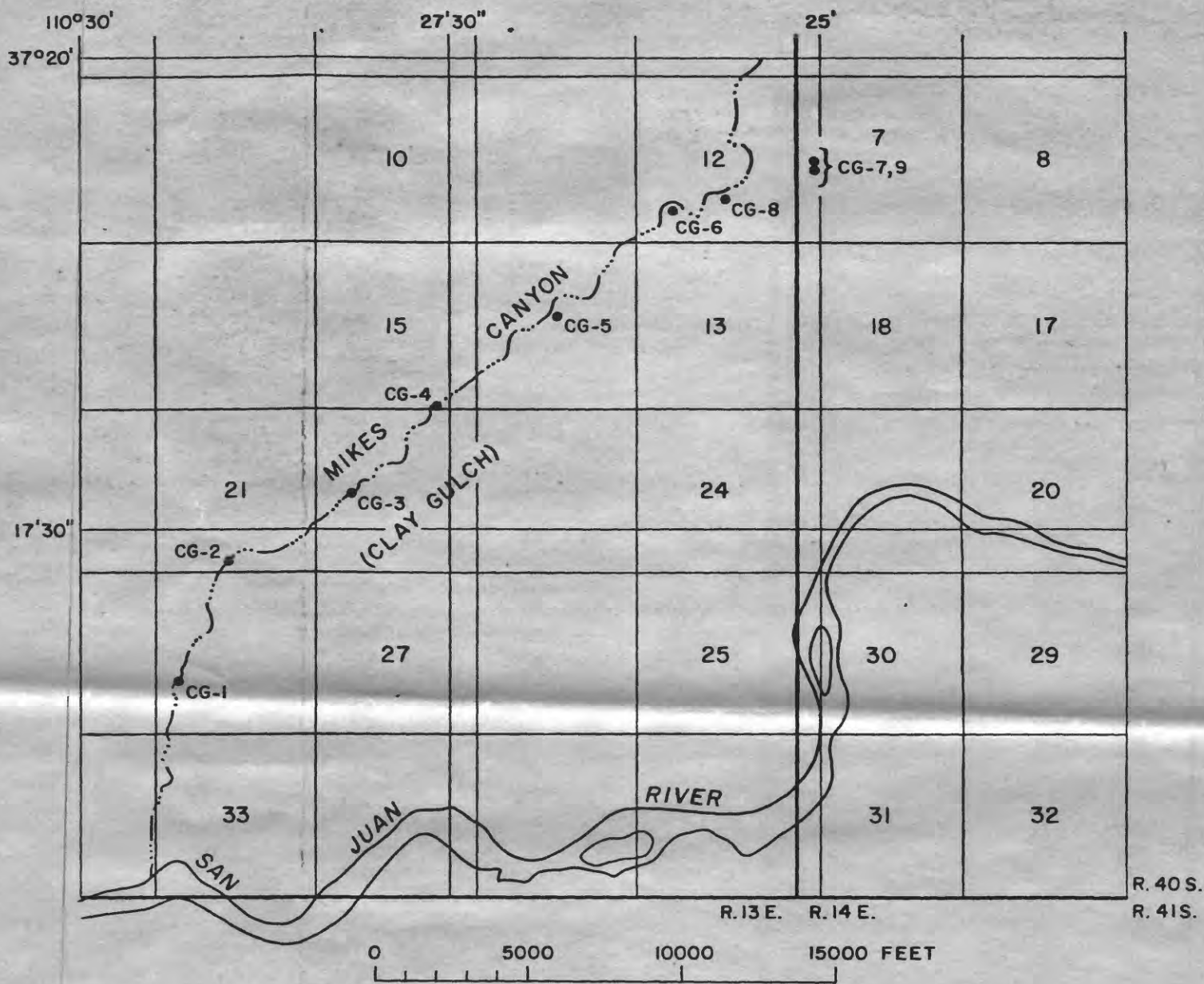
This map is preliminary and has not been edited or reviewed for conformity with U. S. Geological Survey standards.

(200)
R29r
no. 1329

69-302

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE
1969



EXPLANATION

CG-3
Hole and number

Note: For description of geology of area, see Mullens, T. E., 1960, Geology of the Clay Hills area, San Juan County, Utah; U. S. Geol. Survey Bull. 1087-H, p. 259-336.
Hole 9 is a redrill of hole 7.

FIGURE 2.--MAP SHOWING LOCATIONS OF HOLES DRILLED IN 1955 BY U. S. GEOLOGICAL SURVEY, CLAY GULCH AREA, SAN JUAN COUNTY, UTAH

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