

U.S. BUREAU OF MINES
CHURN DRILL HOLE LOG

Date started: 6/12/1948
Date completed: 6/26/1948
Struck water at 50 feet
Water stands at 20 feet

Hole No. NE-24-C
Project 15-226, North Empire
Cherokee County, Kansas
Collar elevation: 921

Coordinate location: 3312-N, 3879-E

FEET FROM	TO	<u>FORMATION</u>
0	5	Surface boulders, yellow mud
5	10	Yellow mud, surface boulders
10	15	Yellow clay, some light gray shale
15	25	Gray shale, some yellow clay
25	30	Gray and some blue shale
30	35	Blue and gray shale
35	40	Gray, blue & mottled chert, cottonrock, some green selvage, shale, marcasite
40	45	Cottonrock gray and some white chert, much marcasite shale (probably falling)
45	50	Gray, white, yellow and some brown chert, some cottonrock, marcasite, shale (falling)
50	55	Gray, blue, white, yellow & some mottled chert, little cotton rock, some gray limestone, marcasite
55	60	Gray, brown, blue, yellow & mottled chert, gray limestone, crinoids, calcite, marcasite
60	65	Brown, gray & little blue chert, gray limestone, crinoids, green selvage, marcasite.
65	70	Gray & some mottled chert, very little white chert, marcasite, little gray limestone
<u>"M"-bed</u>		
70	75	Yellow, gray and little white and mottled chert, very little gray limestone, some green selvage, crinoids, marcasite
75	80	Yellow, very little gray and brown chert, crinoids, marcasite, little gray limestone
80	85	Yellow & gray chert, marcasite, very little gray limestone, very faint trace Pb
85	90	Yellow & gray chert, gray limestone, marcasite.
90	100	Gray, yellow & some mottled chert, marcasite
100	105	Gray, white, yellow & mottled chert, trace marcasite
105	110	Gray, blue, white & mottled chert, trace marcasite

Hole No. NE-24-C (Continued)
Project 15-226, North Empire
Cherokee County, Kansas (1948)

FEET		FORMATION
FROM	TO	
<u>Grand Falls</u>		
110	115	Gray, white, and little light blue chert, little marcasite, some cottonrock
115	120	White, gray and very little yellow chert, little cottonrock, marcasite
120	125	Loose yellow, gray and white chert, some cottonrock
125	135	Loose gray, white & yellow chert, cottonrock, trace marcasite
135	145	Gray, yellow, white, little blue chert, little cottonrock, gray and brown limestone, calcite, trace marcasite
145	150	Blue, gray, yellow, white & mottled chert, faint trace marcasite, some gray and brown limestone
150	155	White, gray, yellow chert, very little gray limestone
155	160	Gray, white, yellow chert, trace marcasite
160	165	Translucent gray & brown chert, some mottled chert, very little yellow chert, very faint tr marcasite.

Reed Springs

165	170	Dark blue, gray and some brown chert, little gray limestone
170	173	Dark blue, dark gray and blue & gray chert, little gray limestone.

REMARKS: Formations open - considerably altered and difficult to define - shows heavy solution action. No mineralization.

No. sludge samples - 35

No. assay samples - None

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

NORTH EMPIRE PROJECT NO. 15-226
Cherokee County, Kansas.

SECTION OF CHURN DRILL HOLE NO. NE-24 G

Collar Elev. 921 f.a.s.		
Cherokee-		Surface residual chert boulders & yellow clay.
	25'	---
890' Elev.		Gray & blue shale.
	35'	---
Warsaw-		Cottonrock, gray & white chert, shale, marcasite.
	55'	---
		Gray, brown & yellow chert, Gray limestone, green selvage, crinoids.
	70'	---
		M - bed Yellow, gray & mottled chert, gray limestone, marcasite, lead trace.
Keokuk-		---
	110'	---
		Grand Falls Gray, white, blue & translucent chert, cottonrock, calcite, marcasite trace.
	165'	---
Burlington-		Reeds Spring Dark blue, brown & gray chert, gray limestone.
	173'	---
Bottom.		

Location coords. 3312-N., 3879-E.
Started June 12, 1948
Completed June 26, 1948
Water struck at 50 feet
Water stands at 20 feet

Remarks:
Formations open,
highly altered and difficult
to identify. No zinc or lead
mineralization. No assays.

Scale: 1" = 30' vertical.