

Mt. Judra Quad.
Hydro.
No 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DI-6
APPROVED DECEMBER 1941

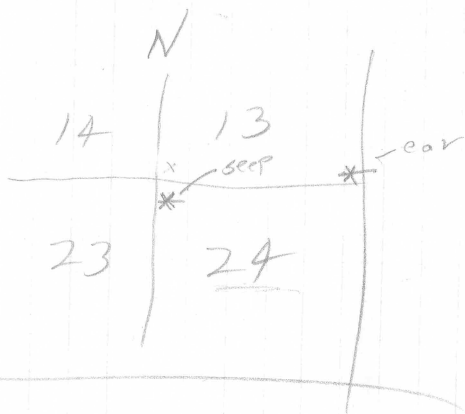
Measured
sect,
Mt-Judra
D.1 Seep

Glick & Hayden 4-20-59^(?)

CT = Cave Creek From Pitkin to Caprock

SSH = Sulphur Springs Hollow measured along Bear Creek

NWNW 24^s 14N 22W



Cave Tributary

April 20

Glick & Hyden measure
section on trib. to Cave
Creek from Pitkin ls upward

19-14N-20W

CT. 1. 3' 1/4 ls., one thick bed 3' 1/4 thick
more below, weathers lt. yell-gy
fresh spec dk gy, oolitic, abdt
crinoid stem frags

covered 12" 1/2 covered. ls float 5' above
base of 1/4 ft. above ls.

CT. 2. 2' ls - weathers yell-gy, one bed
with thin wavy laminae, weathers
fine dk-gy, v. fine, small oolitic
silty.

covered 4' 6"

CT-3
3'0"

Siltstone, very limy, massive,
cross-laminated, dark-gray,
when fresh. Weathers yellowish-
brown & is decalcified in
most of the outcrop. Fresher
part shows some colites.
Grades into overlying CT-4

CT-4
1'6"

Sandstone, very fine grained to
siltstone, limy, dark-gray (wea-
thers yellowish-gray)

Covered
3'0"

CT-5
1'6"

Limestone, dark-gray to brown, oolitic,
very finely crystalline, silty;
Contains crinoids.

Covered
9'0"

CT-6
1'3"

Shale, gray, very weathered and
poorly exposed.

Pitkin top, Cane Hill base

CT-7
2' 8"

Conglomerate, limy, to 1" in diam
Pebbles re-worked crinoid stems
and coaly plant fragment; Clay
ironstone pebbles to 2" maximum
diameter; Sand in matrix is
fine-grained;

CT-8
6' 3"

Sandstone, massive, weathers to
dark-brownish gray, fine-
grained; Fresh surface is light

CT-9
6' 3"

gray. One massive bed 12' 6"
thick is CT-8 & CT-9. No
difference noted to top.

Covered
To poorly
exposed

27' 9"

Appears to be typical Cane
Hill shale. Gullies show
poorly exposed to slumpy
dark-gray shale and
ironstone bands -

Cane Hill Top - not quite exposed

CT-10
6' 0"

Conglomerate,
Clay-ironstone, flat to 4" in diam
Qtz pebbles to 1/2"
Siltstone pebbles to 1" in diam
Matrix medium- to coarse
grained limy sandstone.
Lenticular - 6' 0" may be
about maximum thickness

CT-11 Sandstone, fine- to medium-
30' 0" grained, weathers yellowish-gray
light-gray where fresh; one
massive bed 30" thick. Lower
10' + sampled.

Note - Samples below not continuous with above
Transferred about 300 yards South
along base of Prairie Grove
Started measuring on North
side of main tributary 1' 0" below
Cane-Hill top.

CT-12 shale, dark gray, fissile; contains
1' 0" siltstone laminae and lenses.
Contact with overlying
Prairie Grove is level in
this area.

CT-13 Sandstone, fine-grained at base,
10' 6" weathers tan, light-gray where
fresh. Massive

CT-14 Sandstone as above but medium-
13' 6" grained. Cross laminated to
the West or Northwest shown
by resistant iron-cemented(?)
layers $\frac{3}{8}$ " thick

- CT-15 1' 6" Shale, dark-gray, fissile; trace ironstone (?)
- CT-16 8' 6" Sandstone, ^{limy} medium- to coarse-grained; Irregular bedding; cross bedded to the Northwest beds 3" to 2' 0" thick. Contains quartz gravels and zones of quartz pebbles to $\frac{1}{2}$ " sandstone to 2" and some ironstone.
- CT-17 11' 2" Sandstone, medium to coarse grained, probably decalcified. One massive bed that continues into next unit.
- CT-18 17' 5" Sandstone medium-grained, probably decalcified, weathers brownish-gray. Massive
- CT-19 15' 5" Sandstone, medium-grained, massive, probably decalcified, brownish-gray
- CT-20 11' 3" Sandstone, as above, Upper 3' coarser than lower 8' 3".
Top of 90' Cliff - shale above
- Covered 52' 0" Shaly? 65' to top massive bed (Covered 52')

Hyden & Glick
April 21, 1959

- ✓
CT-21 3'0" Shale, dark-gray, fissile
- CT-22 4'0" Sandstone, fine-grained, limy, (nearly a limestone) medium- to dark-gray. One massive bed includes CT-23.
- CT-23 6'0" Sandstone as above; contains shale chips.
- CT-24 3'6" Shale,
- CT-25 0'6" Limestone, sandy, crinoidal, dark-gray; Single lens 0" to 6" thick
Hard. Fragments of ironstone (?) to 2" in diameter
- CT-26 2'2" Shale & siltstone interbedded.
Beds $\frac{1}{10}$ to $\frac{1}{2}$ "
- CT-27 3'10" Siltstone, medium- to dark-gray, limy. Beds $\frac{1}{4}$ " to 4" thick
- CT-28 4'10" Siltstone, limy interbedded with dark-gray shale; some lenses of limestone? Beds $\frac{1}{4}$ " to 6"

CT-29
1' 7"

Sandstone, medium-gray, very limy, shaly in part. Medium to thin bedded. Contains lenses of siltstone.

Top of waterfall CT-29 to CT-21

CT-30
3' 0"

Shale, dark-gray, poorly exposed in upper part. Grades into covered unit above that probably is largely shale.

Covered
59' 6"

Upper 35' well to poorly exposed to covered shale. There is little chance this 35' of section is anything but oily shale. Not-sampled.

CT-31
2' 0"

Shale, dark-gray with light-gray silty laminae. Weathers yellow to brown.

CT-32
6' 0"

Siltstone, sandy, thin-to medium bedded, ($\frac{1}{2}$ " to 1")

Covered
50' 0"

Most of interval appears to be shale as CT-33, but one ^(35' shale) _(CT-32) or more beds of sandstone to 5' thick may be present.

CT-33
6' 0"

Shale, dark-gray
Massive basal A to Ka sandstone

CT-34
48' 0"

Cross bedded. N60W 25° & less SW
Forms waterfall. Fossil tree limbs well exposed under overhang. C-grs. Qtz pebbles. Base smooth

End

Glick & Hyde

Sulphur Springs Hollow, April 22

Meas. along Bear Creek

3-T13N-R170

- SSlt 1 12" sh, dk gy, in pool under water.
Probably top of Pittkin
- 2 3" congl. cr. column, ls pebbles,
clay & siltstn matrix.
- 3 8" siltstn, dk gy, limy, hard,
single bed
- 4 6'10" sh, dk gy, upper half of unit
ironstn lenses and beds.
- 1N@top
- 5 1'10" siltstn + sh. $\left\{ \begin{array}{l} \rightarrow 4" \text{ siltstn} \\ \downarrow 9" \text{ sh} \\ \downarrow 4" \text{ siltstn} \\ \downarrow 5" \text{ sh} \end{array} \right.$
From base up

lower part of lower sh has 3"
of ls peb. congl. locally & Peb to
1"

- SSH 6 3' 8" siltstn in lower 8" sh in upper 3". Siltstn is single bed, slightly limy. Sh. has sctrd. ls. nodules $\frac{1}{2}$ " thick. Sh unit 22' 20' south
- 7 4' ss, brush gy, single bed, slightly cross-laminated, v. f to f grn. Scattered cr. color mols. v. slightly limy
- 8 2' 8" ss, as below, forms top of water fall, trace of fossil impressions. Apparent dip SE 30° taken into account
- 9 2' 2" siltstn, brush-gy, weathers thin to med bedded. Abdt fossils in middle 1' 1"; brchs, crinoids + plants.
- 10 3' 11" sh, dk gy, fissile, 3" limy siltstn 1" from top of unit. Unit contains abdt stnstr. nod. to 1" thick and 6" long. Sh is silty + hd, and is mostly brush-blk w. lenses of blk fiss sh in-between.

SSA-11 1' 3" Siltstn + Sh.
lower 11 inches siltstn, hard,
m. gy., 2 beds
Upper 4" sh, dk gy, fissile,
badly weathd.

12 1' 7" ss, single bed, med gy, fgrs
50% of unit is lenses of v. fossil,
v. limy ss. : crin., brachs, ~~at~~
Archimedes, ironstn pebbles, horn
corals.

13 1' 6" Sh + siltstn.
Lower 6 inches: silty sh lens, +
3 inch lens of hard ironstone
overlain by thin med siltstn w.
some sh lenses. Siltstn
contains plants, upper str
shows worm trails?

14 5' 4" Sh, dk gy, fiss, contains
nodules ("marbles") to 1" in diam
ls, with ironstone coating,
pelecypods. 1 ft 3 inches from
top is top of 3 inch ironstn
band.

SSH15 3' 2" sh, dk gy, fiss, silty
in part, very fossilif., mostly
crinoids. Lower 4" is nodular
lenticular, fossilif., silty, brnsh gy
ls. Similar unit 4" from top.
Ls. lens 4" from top (4" in diam.),
Marble size ls nodules thro'out.
This is unit from which McKean
Gordon collected many of
his cephalopods

3N @ Top →

SSH16 5" ls, reddish brn, silty, v. fossilif.
single bed, except as it thins to
lens in and out along outcrop

17 1' 7" sh, dk gy, fissile, contains
about 6 beds of ls to $\frac{1}{2}$ " inch
scrd thro' unit.

18 7" ls, single bed, much like
SSH16, v. fossilif., Archimedes,
crin. stems.

19 10' sh, dk gy, fissile
upper half poorly exposed
ironstone nodules to $\frac{1}{2}$ inch
cephalopods, + prob. others
bryozoan?

4N (in middle)

Covered 14'

SSH 20

7"

sh + ls

lower 4" sh

upper 3" ls, dk gy silty, v. fossil, single bed

21

2'7"

sh, dk gy, fissile, lower 2" is silty + v. fossilif, remainder has a few fossil a trace of ironstone concretions to 1" thick

22

1'3"

sh, dk gy, ~~is~~, silty, w. lime, abundt. ls nodules + lenses to 1" thick fossils in both sh + nodules. Gordon's coral zone, brachs, strat cephs, bryozoa, echinoid spine.

23

2'11"

sh, dk gy, fissile, fossilif straight cephs, fewer fossils than SSH 22, Ironstone nodules to 4" long.

5N-@Top

24

1'

ls + sh 6"

lower 6" ls, upper 6" sh ls, ls v. fossilif + hard, abdt. crin. Archimedes, etc. sh contains silty lenses to 1/2"

SSH-25 2'8" siltstn + sh
lower 1'3" is siltstn, m. gg
limy, hard, single bed.
upper 1'5" sh is silty + slightly
fissile
siltstone beds to 1/2" in upper
4"

SSH 26 1'3" siltstone, single bed
med gg, hard, contains
thin shale lenses locally.

SSH 27 10'6" sh, dk gy, fissile, poorly
exposed, contains ironstone
bed 2-4" thick in middle

27 10'6" of out

28 4'6" ss, brnsh gy, mass bed.
v. f. grn. fossil impressions
decalcified.

29 2'1"
lower 10" is intbd fossilif
siltstn + dk gy silty sh.
upper 14" is massive siltstn

SSH30

1' 0"

lower 3" weath brush gy
silty sh
upper 4" siltstn med gy
unbed. irreg sfc top & bottom

31 1' 3"

Int bed sh + siltstn
lower half is silty sh grad
with lower unit
upper half is silty sh + siltstn
fossilif limey siltstn lense to
2" thick

32 2' 7"

sh, dk gy, silty, contains
3 ls stringers (base, center, top)
to 3" thick. fossilif, pelocypods,
Archimedes, uppermost stringer
is most limey + fossilif.

33 5' 6"

sh, dk gy, abdt worm corals +
large crinoid columns in lower
6N-middle
2". soft ironstone nodules to 4"
long, 1" thick

34

6'

sh, dk gy, fiss, ironstone nodules
as below.

SSH 35 1'3" siltstn, med gy, single bed
fossilif. & decalc. in part.
Makes ripple at ford.

36 2'3" sh + ss
lower 1'8" dk gy fiss sh
upper 7" m. gy, v. f. grn ss
top 2" is silty w. abdt dk
shiny phosph peb to $\frac{1}{2}$ " long
Unit is capped by $\frac{3}{4}$ " ironstn.
Caps ripple ^{100'} above in ford.

37 15'3" sh, dk gy, fissile
7N (2' above base)
8N (6' below top)
9N (Top)
ironstn lense & beds, mostly
1" thick, up to 4" thick

38 1'2"
lower $1\frac{1}{2}$ " ironstone
next $10\frac{1}{2}$ " f grn. ss
upper 2" sh congl. contains
ironstone chips and locally
qtz pebbles.

Top of mass section overlain
by dk gy sh (same as SSH 37)

For remainder see section
notes by Faxon & Chisolm

Green Oil Co samples - George Glover

- 450
1650
- # 10 - 8' above conglomeratic ss
 - 11 - 15
 - 12 - 30
 - 13 - 50
 - 14 - 140 = Top of covered interval
 - 15 - 180
 - 16 - 195
 - 17 - 215 - 10' below Prairie Grove
 - 18 - 225 - directly below PG
 - 19 - Still well up in PG

Notes from Frezon + Glick's measured section 5-8-54. Limestone section

Section starts at bridge, SE, SE 6-21F13N, R21W, about 0.4 miles upstream SW, NW 8 - 13N-21W

25'0" B-R-M

165'0" Fayetteville ~~is covered~~ total thickness:

117'2" sh, covered

47' 10", ls + sh:

16'5'

up } 15'7" ls with sh. partings
6'0" - ls with sh partings - calciche on top.
4'8" ls - granular upper 6" fossilifer bed.
6'0" sh - poorly exposed
7'0" ls + sh (6" beds)
ls is gran. silty streaks + gastropods
9' 1" (10 ls beds) brachs + crinoids

Small bench at contact

5'6" (top of Fayetteville) ls, sh partings to 2" upper 18" ls set is set of 4" thick ls beds, which are "knobby" top is finely granular to dense top is fine, granular and hard.

Notes from Glick + Frezon on Limestone (cont)

Total thicknesses
179' 1"

Pitkin ls:

5' 8", ls, massive bedded, dark gray, finely granular to finely xln, abdt fossils in whole.

150' 7"

Cane Hill:

up { 1' 0" conglomerate, ls cobbles in limy siltstn matrix
 ↓ { 2' 1" : 15" silty black sh at base
 5" congl. w. thin ls stringers
 5" silty sh w. siltstone, v. thin bedded dark gray.

79' 6"

Prairie Grove:

down
 up { 11' 7" : ^{ss}thin bedded, x-bedded limy ss, w. gtz gran. + pc
 ↓ { 6' 4" : sh, dk gy
 12' 8" : cover
 6' 5" : ls,
 1' 7" : sh,
 1' 3" : ls.

Morrow	366' 3"
Pitkin	179' 1"
Fayetteville	165' 0"
B-R-M	25
	<hr/> 735' 4"

~~136' 2"~~
136' 2"

Bloyd sh