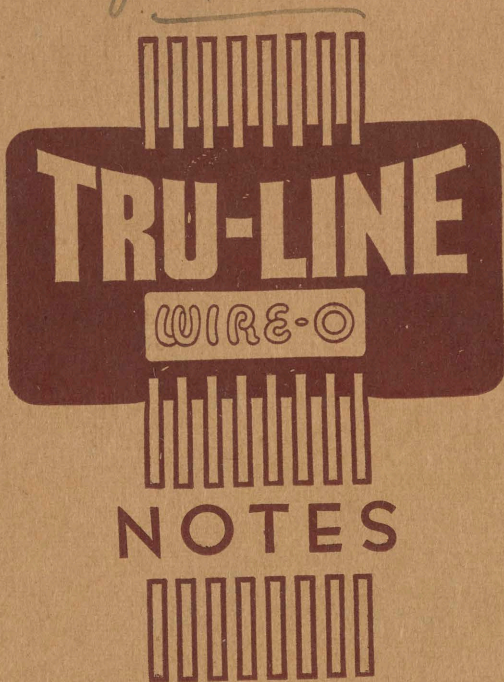


Humboldt Basin
May 18-21, 1943.



No. 718

Trip to Humboldt Basin

Engineers Smith, Schenkler, & Church

Tues, May 18.

Truck ^{inlet} at Derby Dam closed.
River at Wadsworth normal.

Humboldt Lake - not deep -
instead of the usual sink.
River full but no floods.

Rye Patch Reservoir encircles
Pitt. Taylor Reservoirs like
a question mark. Latter are
blue mosaics in a
setting of grey. Shallow,
sustained by dikes strengthened
by willows looking in
distance like wharves.

Humboldt basin wet but
not flooded - Water well
within channel and fallen.

No evidence of old cable
nor new at Malheur.

possibly lower.

Still can't find Mary Creek.
Maggie Creek at Carlin
and Susie Creek east.

Maggie larger - $\frac{2}{3}$ channel-
full. Susie $\frac{1}{2}$ channel full.

Almost no flooding above
Carlin.

Santa Rosa mountains
should hold late flow of
Martin Creek at normal.
Midas mountains bare.

South of Savelock; Rochester
Range has only cornices
and a gray mantle of recent
snow.

The Ruby Range heavily
covered above 8000 feet and
possibly lower.

Called Orval Ames:
March precip. deficient,
April just normal. Cold
spell last ten days. Stream
dropped quickly.

Gage read only at noon
when at minimum. Waiting
until flow is high before
reading it at midnight
at maximum.

Did not receive last payment
for salary tho mileage was
paid.

Has a recorder at Pomeroy
but could get no sheets
from Orvis Stock. Disliked
to use record sheets twice.
Instructed him to use even

wrapping paper to keep
recorder going.

Will send Reno copy of
gage readings for last year
and this tomorrow.

Called Ovis Stock but no
answer. He did not buy
the Recaldo Ranch in
Paradise and will continue
as Commissioner on the
River.

North Fork ^{well} within banks.
Bed rough from seepage
and erosion. I-beams of
old bridge still in channel.
A temporary detour bridge
immediately below. Flow
still steady but not flood.

Marys River and Upper
Humboldt sluggish. Pity

that the dams are so obstructive, much more snow in Jarbidge Mountains than on North Fork. Show white up Mary Valley.

Night at Kells at Overland Cafe. John Grant there. Retired for age from Army. Dinsmore has TB in one lung and is now at Colfax.

My old student Wiers lives and teaches at Kells at Overland Hotel. At University the year after my return from Greenland.

Wednesday May 19 -

Met Roy Thompson and Tom Newell at Contact, Nevada, at 10 am. But which, Mountain or Pacific Time? Contact and

Wm Shipley changed to meet us at
contact. Gulcher Pasture is 30 miles west
in extreme corner of arida.

Twin Falls are an Mountain
Time. He must have been
later. Tom Newell 4595,
Thompson in State Engineer's
Office.

In Salmon Falls Creek
drainage. a grandiose
effort of 1908 when precip.
was an increase. Shrank
from 72,000 acres to 20,000 -
26,000 acres. Only two good
years since 1921.

In Nevada about 14,000
acres of desert decreed for wild-
hay land. O'Neill streams
flow from east flank of
Hays River basin northeast
into Snake River. Pale Creek
and possibly Jarbidge Creek
belong to series.

All your ride far west
across the tributaries.
Only alpine meadows. No
chance for expansion.

No value in maintaining
a stream gage for it would
be below diversions. a gage
is already recording at the
Steel line below San Jacinto.

Decided to visit the project
and spend night at Twin Falls.
San Jacinto is a cattle
headquarters of Utah Construction
Company; Rogerson a ghost
town like Metropolis.

Salmon Falls Dam is in
a box canyon 200 feet high.
Capacity 180,000 acrefeet.
Never filled. Ditches 45 miles
long, carry 600 second feet
but project quite checkered
with much good land abandoned.
Hauls dismantled and the
best back part.

Twin Falls Project thrifty
but water from Snake River
never fails.

Phoned for rooms. Two

beds in each, a card (poker)
club in next room, noisy
but repeating its ritual.
We fell readily asleep -

Thursday, May 20.

Twin Falls Bridge 476 feet
high, and Shoshone Falls
were almost next to
Grand Canyon in impressiveness.
The homes and vegetation
made by man - 35 years
ago. Power for export.

a fruitful conference in
Judge Joseph Bethovell's office.
The harassed project dwellers
want assurance that Nevada
will not appropriate more
water. It could not be
used feasibly. Storage
sites but no use for further
water.

Top speed in wind to

Wells and Elko.

Snow fences along highway
& fence slats and also of
sagebrush hung upside down
on wires like green hay
in Sweden. Wanted a
pictures

at Wells called Cajins
of Pomer Company. They believe
that snow surveys were paid
for by the Company. Will check
up. If so, it should have credit
as being a Cooperator.

at Elko, called Arnie Stock
at Lamville. Coming in in the
morning to go to North Fork
with Archie Willard. Archie
now on way from Lamville
to Elko.

Forecast: Snow plentiful at

Snow = 100 to 200 season

Spring rains: March 50%, April
100%, May?

present time but cannot tell
relationship to other year
normals.

Soil moisture and water-
table affect entire runoff.
Has done so even for deficient
snow at low altitudes.
So 100% on upper slopes should
still make 150% late runoff.
or 150% of the percentage
of the snow cover modified
by March melting.

Conference with Archie at
dinner:

River at Palisade fallen
to 1100 feet. Due to cold
weather.

Anchor bolts etc found at
Moleen Canyon, but water
too high to cross stream.

No hydrographer available.
One application by old man.

Not wanted. Stock meters
streams when he visits
stations. Then completes day
regulating water-rights.
So no extra payment for work.

Recorder at North Fork never
found. No substitute available.
Staff gage also at Maggies
Creek and Mary Creek gone
down stream.

Mary Creek is dry at
highway but appears below
as joint stream of two
creeks meeting here.

West of Cabin at culvert.
Dike between culvert and
town.

at Minnemuccas river
still in flood stage i.e.
rises above dike west of
town & keep water off from
north(?) side of ranch.

Reese River has reached Humboldt this season but from rains and creeks near Austin rather than from Tiyable Range. So no evidence of heavy snow season.

Martin Creek has plowed a channel down Paradise Valley and undermined the shallower concrete dams. But the deep ones made by Archie stood.

Greens will remain at Paradise the year round and so can care for recorders.

On Tuesday Archie was at Pitt-Taylor Reservoirs when we passed by. Inspection evidently close.

Range - In Idaho April excellent but May cold, windy, dry. Soil moisture being dried out. Good streams but poor ranges.

Bronco Grass turning red while still only hand high.

May 21 (Friday).

Wind in night. Spurt of rain this morning.

Long visit with Chris Steer who came in from Lamoille to join Archie Miller on trip to head of North Fork.

He has been doing much the working little.

Suggests gage at Lamoille - Lamoille bridge. Has staff gage there. River now higher than last year.

Can purchase material for gaging stations. Have

asked him to do so
before end of year.

For details of our conference
see letter of later date
written to Stock after our
return to Bend.

Humboldt Basin -

Wells - Trip to ELKO,
June 27, [1943] -
June 30

- WELLS -

TRIP TO ELKO

June 27

Li-Rite

PATENTS PENDING

Notes

No. 518½

LI-RITE LICENSE NO. 1

Trip to Elko

June 27 -

Seat on fourth bus -

- Wells -

No. 3 - Fernald -

Use chalk on steel
tape. Change ~~benzene~~
from top of plank to
top of 12x12's supporting
pump.

Below ditch to
Reform School (New Industrial
School) -

2 views. Nos 1 + 2

Need planks over old

No. 3 1/2. Moffatt Well (steel
watering)
north of new highway
and an old - opposite
"Rindan" on Ry.

No irrigation - water scarce
Well shallow + abundant.

Greasewood area
Use roof nail with "cross"
filed on face. for all wells.

[Randolph well used by USFS
subject to filling by irrigation -
unreliable] - water not available
Permit to
taste.
Overboxed photos

No. 4 - "Tower" (Talley) Well

Two wells. No intereffect.

Can pump down 3 1/2 ft but
no further - "underground
flow"

Entry only into north well,
which is not pumped except
by hand and in emergencies.
So north well is ideal.

Photos Nos. 3, 4, 5.

South well, pumped by wind -
mill on raised tower roof,
high. Water for auto filling station

Need blank forms for
reporting wells.

1. Depth of well.
2. Depth of water.
3. Depth of water surface
beneath surface of well
cover.

Steel tape covered with
blue chalk.

Lansville Valley

* 1. Charles - near foothills.
Tresspass

Loan Church, film No. 2

* 2. Church (ie, Conrad's) well
Earl Conrad sent
greetings to Jeff -
Cement top, Hayland
Film No 1 ~~and~~

* 3. Patterson - Alshouse.
Film No. 3.
Well fluctuates with
irrigation water.

(4) Case Well (west of
Lansville)

4. McKinney Gate No. 1.

3 in drain pipe driven
In edge of creek. ^{Depth 4.80}

always flowing water.
Well never less than
1 ft deep in well.

film No. 4.
Drifts over ~~some~~ structures.

5. Lytton No. 2

3 in. drain pipe of
approx 6.90 ft
In irrig. water drain.
Film No 5 and 6

Ran dry at first, so
deepened.

* 6. Reinkin - In barnyard.

Iris and mellores beyond.

4.50 ft deep - 1.25" ϕ water.

Drainpipe - driven.

Film 1, 2, 3.

a deep drilled well here
but made watertight to
~~pump~~ — —

Other deep drilled wells -
asked that they be investigated.
Some sealed — —

7. Lytton No. 1 -

Depth of driven well -
3 in pipe to water 0.95 ft. $\frac{4.175}{1}$

In edge of barrow Creek.

Film No. 4

* 8. Gilvie
at ~~back~~ Cameron house - Tiny
Creek, in front of house,
Film No. 5

* 9. Martin

Deep 7.40

To water 1st 9.30

Film No. 6.

Water cold but slightly
alkaline - affected by
irrigations

Itinerary June 27 above.

Elko to Halleck to
Lancille for fire schools.
Lunch at Arad Ames.

Then Church well to
Martin well, thence by
short cut to Elko -

June 29 -

Carlisle - Beeth

* No. 2 - Hunter and Banks

Not used] Depth 14.95 ft

Depth of water 3.95

Belongs to T.S. Howard, race

* horse man - John No. 1

No. 1 - Carlisle

City Power Plant

Abandoned] Cemented in -

Above railroad tracks. John No. 2

No irrigation

* Originally 500 ft but casing

pulled out. Now approx 125 ft

[Maleson Canyon - Total water 6.4 ft

Station ideal]

Orval Ames instructed to place housing in Maggie Creek station - Archie Miller plans to place continuous recorder here.]

Present casing 90 ft - (diam 20")

Abandoned because of oil seepage into it.

Maggie Creek -

Need cellophane tape.

Housing -

Lowering of intake -

Metering

at Samsville 5 gals of No. 20 oil in measuring well but well froze solid in winter.

Susie Creek -

Place gage upstream on a sharp bend of river.

Erosion here makes single channel.

Channel between highway and railway bridges

*
1^a Box K. Ranch -
New well, on
On Dry Susie Creek.

Well above river - good water
depth of well 14 ft. Dpt. 3.55
a second well on small
has only 1 1/2 ft water.
Springs a mile up the
valley.

[Quarry: Can wells be
driven for irrigation]
lunch -

3^a Pindon (Woffat's)
Film No. 3.

Cattle watering point

North Fork River

35 to 40 CFS at Highway
No. 40. "Twice the usual
at this time" - Lloyd Blume.
New channel.

4. Tower (Talley) - near
Halloway?

6 - O'Bay - Road House (ruined
over 100 ft deep - down)
Old windmill.

24 1/2 ft to water [Dug
curb part of
distance.]

Well over 100 ft deep -

Tape too short.

above highway in sage brush.
+ 3/4 mi. from river.
or more
25 ft. (?) above river. Higher
than railroad.

7. ^{South} Carlin (in town)

Dug well.

Depth 13.60.

To water 5.55

Depth of water 8.05 ft

Film No. 5

Summary

- Carlisle No 1
Box K. Ranch 1^a
- Hunter and Barnes (Howard) No. 2
- Fernald (near Indent. School) No. 3
Moffat near Rindon No. 3^a
- Tomer (Tolley) near Elburg No. 4.
- Glazier No. 5
- O'Bay No. 6
- Doeth (71 River Ranch) No. 7

No. 5 Glazier.

Entry Halleck between tracks. Near level of river. Race fence, lawn, flowers, vines around windmill tower.
Film No. 6

South of River

Randolph Well - Depth 10.70^{ft}
To water + 6 in.
Water 8 in above curb.
Ground flooded.
a super well. Tell H.S.G.S.
In winter pumped down considerably. Film No 1 -

Mc Intyre well 10 ft deep
To water 4.90

In corral. NOT used, but may be affected by a spring above. Spring supplies house.

Film No. 2
"Lancille flooded road yesterday for first time this year"

Panama Well - Depth 5 ft.
Between streams ^{flooded by irrigation} _{Need house}
Better be abandoned.
Too difficult to reach.
Fills within .4 ft of top.
"Always way up!"

Darius
John Day
"well"

John Day Well

Driven 5.40, To water 3ft.

3" in. drain pipe. In sage brush.

"Best well in lot. Goes dry.

But can drive to top and perhaps always obtain water -

Arval Ames. Film No 3

Temporary water lakes in John Day Creek,

Water 2' in deep over fields to Lamaille gaging station.

Agreed to ask M. Conkey to join Arval and Lloyd in horseback cruise down the stream to find better gaging station -

Visited W.P. Ry bridge west of M^r Dutres. But the bridge spans a loop of the Humboldt, not the Lamaille.

June 30 -

Archie Miller and M^r Conkey came in for talk.

New site chosen on Humboldt in canyon below Lamaille and North Fork.

May put in station even at Elko.

They will search for a site on lower Lamaille but prefer to wait until haying is over to avoid trampling down hay.

Arval Ames came.
Gave him the box of popcorn.
Says Bill Rahans at McJintees
will permit riding over hay
land. He and Lloyd will
plan to go in in early July.

Saw Virgil Starr of Grazing
Service. Gould Trassantes
out of office at moment.
Mr. Starr just arrived.
Sent to Jamsville.

Both wells ready to
measure, but hole must
be drilled in exp. job
for Arval and Lloyd.

Mr. Joe Richardson came in
from Ruby Valley on way home
to Paradise Valley.

Says that Georgians were greatly
disappointed at failure to get

U. S. V. B. station. Joe says
that station has been moved
now three times. Must go to
Paradise, ask McHutto.

Lloyd suggests 3 deep wells
between Elvo and Jamsville in
6 mile triangle.

S. Ked flow. Ten-mile
Ranch + Balboa

Called at Jamsville to see Mrs McKeungie
Ed comes home tonight

Case Well - Depth 2750 ft.
To water 5.60 ft.

Depth of water 91.96 ft.

Not used. Creek

preferable,
on Lomerville track
in park. Film No. 5.
A delightful retreat.

Lana Ranch. Arvia
Stock in lower pasture.
Lucy's base.

Lee - 32 mi from
Lomerville. Lunch by
South Fork. Why not

Why must we
measure wells in Ruby Valley?

Measure wells in Ruby Valley.

precip. station at Indian
Agency? Feb 18, 5-

over foot-hill ridges south

23 mi. here to Jiggs.

Orbes an old Carville
Ranch - 3 mi. south of
Jiggs and near mts.

Formerly the Tayne
at next ranch south
had Weather Station -

Myrtle Robinson Gate
(Mrs. Downings Orbe)

Increasing could not
cross over. Gage
returned recently.

Bill & baby. " Time
of storm.

\$ 45 ⁰⁰

Round Valley
flat - Smith Creek from

Jiggs to Twin Bridges
18 mi. View toward Jiggs
Film No 1 -

Smith Creek flow from
Jiggs thru sage brush.

Belmont Twin Bridges -
Film No 2 - view upstream

" No 3 - View toward
mouth of S. Fork

" No. 4 - Nearest view
of canyon outlet.
Belmont Ranch in
foreground. Porter
Ranch at canyon.

Over hill to 10 miles Ranch
Water from Breunings and
from Spring Creek.

When meadows
flooded collar fills
with water.

Depth of well 11.20 ft.
Pumped to water 4.40 ft.
with film No. 5. View toward
south toward Balboa
and grazing Serroce wells.

Sage brush Windbreak
Film No 5 double exposed
So second view Film No 6.

Elko 4:20 pm.

Mileage for trip 347^{mi.}
@ 5¢ = \$17.35

Time 3 day @ \$7.⁵⁰ = 22.⁵⁰

Read gage sheets
for Maggie Creek from
Orval Ames.

Total due Lloyd Blume
\$39.85.

Need

Well and Prec. gage
record sheets.

Well a. b. c.

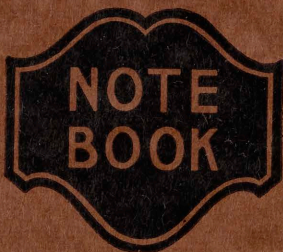
Precip. Blume's, McKenzie,
Power House etc.

Humboldt Basin
Journal, June 28-
30, 1943.

Salt Lake City Trip,
July 6-8, 1943

1943

The
SPIRAL



No. 482

INDEXED THROUGH



Made Under One or More of The Following
SPIRAL Patents 1516932-1942026-1985776.

Other Patents Pending.

Humboldt Trips
1943

A
B
C
D
E
F
G
H
I
J
K
L
M
Mc
N
O
Q
R

A
B
C
D
E
F
G
H
I
J
K
L
M
Mc
N
O
Q
R

Trip June 28 - 30, 1943
to Humboldt Basin

7 pm train Reno - sleeper.
Up at 3 am. Landed Elko 4:30
am.

Found Lewis Stove at Dana
Ranch, Lamoille. Came in
at 8:30 am.

McKenzie still at Pole Canyon
in Rubies, bringing out bodies
of victims of air disaster
last January.

Errol Ames took us to head
of Lamoille Canyon (round trip
22 mi @ 5¢ = \$1.10)

Only the three W.B. gages
at Terrace being read.

Obtained spring balance
and brought it down to

A good example of a
brush snowbank along the
road to Lamoille. But I
left my camera behind. Never
again. It would have made
a good illustration for Report of
Committee on Snow.

Lamoille Power House.

Details quickly and easily arranged. Aerial will make the tour Sunday morning weekly.

The gages at Power House, Falls, and the battery of gages at Terrace will form units of the whole, making a total of 7 units, numbered from below.

McKenzie and Aerial will select the sites, possibly as follows:

1. Power House
2. Halfway to Falls
3. Falls
4. Camp Ground
- 5 (a), (b), (c) Terrace
6. Thomas Canyon?
7. Head of Lamoille Canyon.

Some amount of oil in each can except Nos 1 and 3 read

daily by stick.

Cans will be painted inside to prevent rusting of galvanized metal.

The funnels or rims will be made tight against leakage, possible may be soldered.

The pen of the spring balance will be soldered tight.

The U.S.W.B. form of report will be used or a similar form in smaller size.

Two quarts of Renngail No 20 were provided.

Measurements will begin March 1 if possible and close Dec. 1. If necessary, calcium chloride will be used. At least cans will be set out as fast as the road is opened.

Compensation \$10 monthly.
Mileage 22 mi. each trip. @ 5¢.

Range good at high elevations
where unaffected by May drought.

Fair below. May recovered
with return of warmth.

May precip. low, but June
at Lamoille 3 in., far above
normal.

March low, April normal, May very
poor, June very high.

Snow still continuous in
cirque at head of Lamoille.

The measurements will be
cumulative for the contents will
not be changed unless the
can becomes too full.

"Evaporation for a week
from oil should be nil tho'
evident over long periods". O.A.

The project should now
work.

Get the present records at
Power House (U.S.M.B.) and
at Falls for comparison.

Get the trend, for sometimes
the density is greater below
than above.

Also enquire about thunder
storms on tiny islands
in tropics.

Orval will take pictures of
residual snow at head of canyon.
More than usual now. Streams
running strong.

Gaging Stations

at Lamsille water too swift
and surges on staff gage
making it difficult to read
with inches. Surge even across
stream.

Two-inch pipe to well but
swift water probably sucks
water out.

Rocks also roll down in
high water and sound like
bombs.

Only a weir to steady the
flow can improve the site.
Apron alone too shallow.

Site at bridge below affected
by diversion above and
overflow between streams
and ditch at high water.

On trip around the foothills,
finger streams everywhere
converging into main streams
like Lamsille and Secret but
some flow independently into
main Humboldt - all are
still flowing actively but
are within their banks.

But the roads are still
rough. Spring rains ruin
them quickly and offset the
repair work of the highway
crew.

Bases on south side are
along the highway except
possibly at Ballou's on South
Fork. But roads are
almost impossible in March.

The station at Secret Creek
has been restored. Channel is
good. Evidently the bridge
abutment covers the wreck
of the recorder. Ruined even
if finally found.

The staff gage plates
not yet received from
Leopold - Stevens, should
have a replacement supply
always on hand.

Get a detail map of the
entire watershed with
location of gages and
expanded plan.

Starve Creek begins only at
the highway. Formed by Boulder
and Eken creeks converging
from the eastern Rubies.
The circulator just over the
range behind.

Recorder here the only one
not housed in but is of metal
and is set out only in the
spring.

At Deeth the Humboldt
is larger than Marys River.
The highway between bridges
and railway station keeps
them from mingling and
the through highway from
Elko to Wells gathers the
entire flow of both at its
bridges. These have three
spans but mainly one at
low water.

Good sites for measurement
of both streams.

The route to Anderson Ranch is along the east side of Marys basin on high ground. Road kept open except that possibly only for horse and wagon and sled in winter.

The road on the west side leads to Mala Vista Ranch and if not too wet through the meadows to Andersens.

The damming of Marys River has been accentuated by the dams of beaver and wet-water trees that make the Marys a beaver stream, can floods flow from here, see percentage flow in 1942.

The main Humboldt above Death has the high snow of Trout Creek, Talbot Creek and the low snow beyond Wells and

C
D
E
F
G
H
I
J
K
L
M
Mc
N
O
Q
R

in Bishop Creek and in
Metropolis area that extends
southeast to Death.

A double station ^(two streams) at Hallack
will catch Starr Creek -
a station on the North Fork as
it passes beneath a railway bridge
will catch its entire flow into the
Humboldt, thus leaving the
gage at Elao bridge to catch
Lamoille + Secret and other
streams on the south and
the surface flow west of
Hallack on the north. Abundant
evidence of surface runoff
even across the highway.
Culverts too small.

Molen station will catch
local flow below Elao. South Fork
at outlet already gaged at Bullion.

Maggie, Little Maggie, Susie,
Mary Creek and surface flow
at Carlin will be measured
at Palisade.

At \$ 750 a station, how
many can be constructed from
the appropriation? Possibly

Siber logs, siber logs, siber logs - a long
timber just thru Elko.

bridges will serve for lines
of metering and sane cables,
except in upper Marys and
Lamoille.

Weight driven, long period
recorders must be used. Better
days ahead.

Elko at 5:30 pm. Arvis
must hasten back to Lamoille
to inspect ditch before returning
home. Ice cream sandwiches
and cookies at Deeth. Root beer
and cocoa cola at Halleck. Plans
all day.

Could still catch evening train
to Reno but one hour late
and so 2 am at Reno. "Too
hard a trip," said Arvis. So
to bed for a twelve hour sleep.

June 30. Refreshed. Expanded
but contented train. Windows
open. Humboldt walls filled.

Detour to W. P. around Palisade

Trip to Salt Lake City
July 6-8, 1943.

Up at 5 am. Tom Smith
at 8. Since Ed Muth must
drive in from Carson, he
had waited an extra hour.
Left Reno 9 am.

Humboldt Lake being
drained into White Plains
and Carson Sink by
long canal thru dikes.
Dams to save ranches
set on old floor of lake
as in Tulare Basin.

Max. discharge thru
canal has been 3000
cusec. Present discharge
1000 cusec.

Eye Catch Dam full. Pitt-
Taylor less than half capacity.
Could have saved all
but dam is narrow and
too soft.

Humboldt River full at
Winnemucca. Probably
streams full in Paradise.
Latahals ranch near
foot of valley. Sand
dunes there should be
cut. Water too high and
stale.

Emigrant Pass House is
just half way from Reno
to Salt Lake City. The
Innes thought of making
it a division point
but finally abandoned

Chase Elms and Burlington
Chase Battle Mountain,

Summit Creek flows
into Marys Creek on east
side of pass. They unite
just below the highway.
Both now dry. Early flow -
March and part of April.

On west side of pass
was dry creek where the
cloudburst occurred. The
same telegrapher on his
way west on the highway
tried to wade it,
but was carried 3 mi.
to the Western Pacific
trucks near Osburne.
His wife remained in
the auto and was safe.

The Paradise Problem

Green must be kept on the job the entire year - to appportion water in the summer and police the channels against attempts to dam them in the winter. Rate per acre raised from 6 to 8 1/2¢.

Ranchers may not be willing to pay for stream gaging when not directly associated with distribution.

Tages not washed out or submerged on Martin and Little Humboldt Creeks but channels were badly eroded.

The Army Engineers allowed
\$500 for special computation
of flood flows there
in January.

Details of journey in
Diary.

Fair course of flow
developed before January
flood.

At Conference:

M. T. Wilson, A. B. Panton,
Kosley, Dennis,
A. H. Smith, Ed Muth,
Archie Miller, J. B. Church

Decisions:

First Consideration

1. at Hot Springs on little
Humboldt to form fair

with Chimney Site above
& study discussion in
Bull Head Ranch (9 mi. long).

2. Station on Cottonwood Creek,
Paradise as center for
Lamance, Indian, etc.

Determine harmony of
Cottonwood and West
Creeks.

Use staff gages on
minor creeks.

2. Nelson Canyon.
U.S.G.S. has continuous recorder.

3. Margo at Death.
Worse Cabin Creek gage
down to Death.

4. Humboldt at Death
U.S.G.S. will provide
a continuous recorder

5. Devils Gate on North Fork
or railway bridge at mouth.
8-day recorder will serve
a replacement on land
at Cent.

6. At Halleck bridges
below Star Creek ?

Place Mr. Dwyer's gage from
Famille north.

7. At Elko-Famille
bridge or Furness's place
upstream ?

As Mr. Laughlin for more
8-day recorders. Can
be readily reset if
near the paved highway.

G
H
I
J
K
L
M
Mc
N
O
Q
R

Second Consideration

1. Muddy River
2. Meadant Valley Wash

Conference at Los Angeles soon with Army Engineers, Indian Service.

3. Head of Marys River near Andersons ranch above all diversions.

Based on large cooperative plan.

Need Investigation

1. Reese River
Will Indian Service cooperate?
2. Barker Creek, Snake Creek, Lehmann Creek

3. Lamsille Power House.

Wier to prevent surging?
above intake at Falls?

Cooperation arranged
so that streamgaging
will be separated
from distribution and
supported dollar for
dollar by State Engineer
and U.S. G.S.

Nevada Coop. Snow Surveys
asked to provide \$100
from its increase, thus
adding \$200 to fund.

Plan to place a
hydrographer on the
Humboldt for entire

year and keep gages
running where possible
throughout the winter.

Snowshoes to be used
if necessary or a jeep
after the snow.

Secret, Starr, Lammille,
Balton will be retained.

Effort will be made
to measure spring flood
flows as well as
March-July runoff.

Our hopes are now
coming into fruit.

Mr. Wooley phoned to
Mr. Dennis who was
at Ogden on a grand-
water project. He

arranged a ground water project with Ed Muth for the Las Vegas wells and will seek cooperation for Pahrump Valley from Nye County.

a \$5,000 fund could be divided for research and policing. The U.S.G.S. will share in research costs. Studying elevation of wells by pressure.

Wells are now being capped where flow must be reduced. and casings are used to prevent seepage.

Our country trip brought not only friendship but expansion. State Engineer happy.