KT
3/10/97

STATE OF OREGON

COUNTY OF DOUGLAS

PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

LEONARD D. TERRY
BOX 41 A COW CREEK ROAD
AZALEA, OREGON 97410

confirms the right to use the waters of THREE UNNAMED STREAMS, AND STORED WATER FROM FIVE RESERVOIRS, tributaries of COW CREEK, AND STORED WATER FROM COW CREEK, for IRRIGATION OF 31.1 ACRES AND DOMESTIC USE FOR 3 FAMILIES INCLUDING THE IRRIGATION OF NOT TO EXCEED 1/2 ACRE LAWN AND GARDEN FOR EACH. NO DOM EXP. FOR BOT (1) IN SW SW

This right was perfected under Permit 43944. The date of priority is DECEMBER 12, 1978. This right is limited to 0.41 CUBIC FOOT PER SECOND, BEING 0.01 CFS FROM UNNAMED STREAM 1 FOR DOMESTIC USE FOR TWO FAMILIES, 0.01 CFS FROM UNNAMED STREAM 2 FOR DOMESTIC USE FOR ONE FAMILY, 0.375 CFS FROM STREAM 2 AND RESERVOIRS 1, 2 AND 3 FOR IRRIGATION, 0.225 CFS FROM STREAM 3 AND RESERVOIR 4 FOR IRRIGATION, WITH ANY DEFICIENCY IN THE AVAILABLE SUPPLY OF WATER FOR IRRIGATION TO BE MADE UP BY DIVERSION FROM COW CREEK, or its equivalent in case of rotation, measured at the point of diversion from the source.

The points of diversion are located as follows:

W 1/2, SECTION 28, T 31 S, R 4 W, W.M.; (DIV 1) - 720 FEET SOUTH AND 10 FEET WEST, (DIV 2) - 1790 FEET SOUTH AND 110 FEET WEST, (DIV 3) - 1250 FEET SOUTH AND 500 FEET EAST, (DIV 4) - 770 FEET SOUTH AND 2160 FEET EAST, (DIV 5) - 2550 FEET SOUTH AND 970 FEET EAST, (DIV 6) - 1200 FEET NORTH AND 1370 FEET EAST, (DIV 7) - 750 FEET NORTH AND 1150 FEET EAST, (DIV 8) - 1060 FEET SOUTH AND 450 FEET EAST, (DIV 9) - 210 FEET SOUTH AND 910 FEET EAST, ALL FROM THE WEST QUARTER CORNER OF SECTION 28.

OT IN →

The amount of water used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-SEVENTIETH of one cubic foot per second (or its equivalent) and 3.5 acre-feet for each acre irrigated during the irrigation season of each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

SW 1/4 NW 1/4 2.8 ACRES AND 1 DOMESTIC

NE 1/4 SW 1/4 6.3 ACRES
NW 1/4 SW 1/4 22.0 ACRES AND 2 DOMESTIC
SW 1/4 SW 1/4 2 DOMESTIC (ONE EXPANDED)

SECTION 28
TOWNSHIP 31 SOUTH, RANGE 4 WEST, W.M.

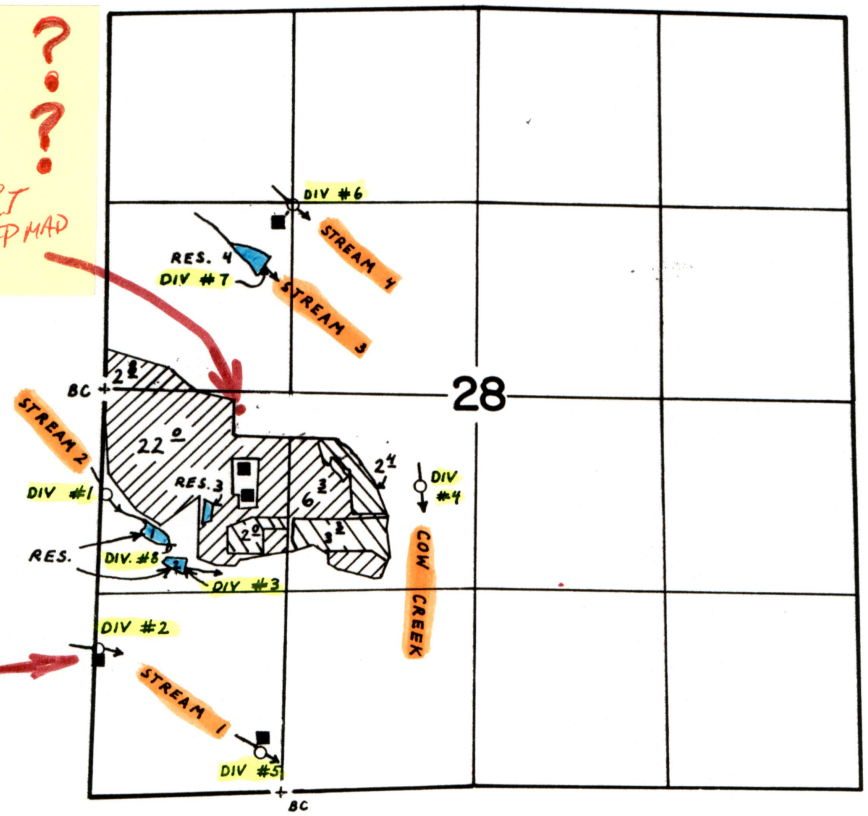
The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

T. 31S., R. 4W., W.M.

Div. Pt. #9 ?

Res. #5 ?

SEE REPORT AND ORIGINAL FP MAP



Two MoHos ?

N

SCALE:
4" = 1 mile

DIV. PT. LOCATION:

#1	720' S and	10' W	DOMESTEC (BARN)
#2	1790' S	110' W	" 2 MoHos (NO L & G)
#3	1250' S	500' E	
#4	770' S	2160' E	IRRIGATION
#5	2550' S	970' E	DOM + L & G
#6	1200' N	1370' E	DOM
#7	750' N	1150' E	IRR
#8	1060' S	450' E	
#9	210' S	910' E	

ALL FROM W. 1/4 COR. of SEC. 28.

PORTIONS OF CERT. 9609, 20184

NEW IRRIGATION

FINAL PROOF SURV

UNDER

R-58176 R

Application No. 58177 Permit No. 43

IN NAME OF

LEONARD TERR

Surveyed FEB. 28, 29 19 84, by L. E. Co

MAR. 1, 1984

JUNE 9, 1990 by BS James

WHERE IS DIV. PT. #9 & RES #5

PAGE 6 of REPORT SHOWS RES #6. NOT ON FP MYLAR MAP & RES #7.

REPORT ON PAGE 10 SAYS TERRY DID NOT FOLLOW THEM

PTS WITH FIELD FORM LEC

6/90 BSJ

RECEIVED
MAR 22 1994
WATER RESOURCES DEPT.
SALEM, OREGON

Terry, Leonard A# R-58176 R 7800
58177 43944

Info: Mr and Mrs Terry showed me location of field boundaries, reservoirs and PoD's. We drove and walked to various areas. An aerial photo supplied and marked by Mr Terry was also used. Photo is w/ field form. I surveyed all of Terry's water development, part of which he did not file on (eg; Res #6 which holds runoff water - no inlet). This was done to obtain a complete picture of what has been done on the property. Terry changed location of several reservoirs (Res # 3, 5). This property is immediately downstream of the Galesville dam site.

Source: 4 unnamed streams, 7 reservoirs, ~~and~~ Cow Creek and 2 springs

Use: domestic (4) families; irrigation of pasture, hay, oats; stock

Heads: 10 RB w/ various single port nozzles 9/64" to 3/16"
1 RB w/ single port 5/16"
(counted on site)

15 max @ one time per Mrs Terry

1 "Big Gun" type nozzle w/ 5/8" ϕ nozzle
Pressure = 35 - 80 psi (per Mrs Terry)
RB and Big Gun can be used simultaneously (two pumps) per Mrs Terry

Pipe: 3" @ 4" mainline 1450' } Alum. pipe for irrigation only
2" laterals 240'

pipe stacked in 3 locations on property

Terry, Leonard A# R-58176 P# R-7800
58177 43944

Tie: PTS attached to field form

DIV. PTS: (Numbers correspond to PTS not app. map)

#1 Source: unnamed stream #2
Use: Water used in barn (per Mr Terry)
Description: currently nothing @ POD except mangled metal pipe in creek bed. Mr. Terry states he plans to re-install pipe and a 2'x4' concrete box in the stream to divert water to the barn. He states that there is underground pipe from POD area to barn. I did see one end of a plastic pipe coming out of the ground and the 2'x4' concrete box. They are located approx. 100' downstream from mangled pipe in the creek bed. Location of mangled pipe is surveyed as POD #1. Application map shows this POD to be used for domestic purposes.

#2 Source: unnamed stream #1
Use: domestic for ② small mobo's; no lawn or garden seen
Description: 24" CMP 13' deep (per Terry)
is located several feet from centerline of creek. It is not currently in the stream bed directly.

Sears 1/2 HP motor @ 3450 RPM
CDD pump 1¼" x ¾"

Lift: 20'
This property has been sold to another owner

Terry, Leonard A # R-58176
58177

DIV PTS (continued)

#3 This was originally to be the div. pt. for the third in-channel reservoir on stream #2. Reservoir #3 was not constructed in-channel. It was built north of its location on the application map. This reservoir however does receive water from stream #2 via a pipe from reservoir #1.

On the PTS, I indicated POD #3 as the div. pt. for the second in-channel reservoir. (The div. pt. is located on Res. #2 rather than Res #3.) There is no outlet conduit at this div. pt.

USE: ? [illegible]

#4 Source: Cow creek
Use: irrigation of oats & pasture (A# 58177 and Cert. # 20184)
Description: directly from creek

Unknown brand & size (no nameplate) on pump & motor. Mr Terry states it pulls approx. the same amount of electricity as a 7½ HP pump that they have. Motor is trailer mounted and ~~is~~ gas ~~pump~~. Inlet and outlet sizes are 2¾" x 2½". Pump is CDD.

Terry, Leonard A# R-58 176
58177

DIV PTS (continued)

#5 Source: unnamed stream # 1
Use: domestic for 1 moho inc. ½ A lawn and garden
Description: water pumped directly from creek

Sears motor ½ HP @ 3450 RPM
CDD pump 1¼" x ¾"
(same as POD #2)

Lift: 35'-40'

#6 This div. pt. was originally for Res #5 (see app. map). ~~There was here~~ The pond was never built at this location. The POD is just now being developed as a domestic source. The moho that is served was moved several hundred feet upstream because the Galesville Project road is being built where the trailer was once located. A trench w/ 1" PVC connects the POU w/ the POD. The trench is still open. 12' of 18" ϕ CMP is lying next to trailer, as is the pump described below.

SOURCE: UNNAMED STREAM #4

Sears ½ HP motor @ 3450 RPM
CDD pump 1¼" x 1"

Lift: 55'

Terry, Leonard A# R-58176
58177

DIV. PTS (continued)

#7 This is the diversion point for Res # 4. (STREAM # 3) There is no outlet conduit visible. There is a small amount of water in the stream channel resulting from seepage through the dam.

USE: ? OK ← SEE LAST PAGE OF REPORT (SKIMPY NOTES) = IRR.

Pond #1 Div pt located @ east end of reservoir This is labelled POD # 8 on PTS. Reservoir is in-channel. POD # 8 is not listed on app. map. There is a 6" ϕ pipe @ div. pt. USE: ?

#9 This is div. pt. for Res #5 on PTS. It is not listed on application map. Res #5 is an out-of-channel reservoir which receives water from the spillway of Res # 4 (unnamed stream # 3 is actual source). Res #5 was not built on unnamed stream #4.

NOT ON FP MYLAR

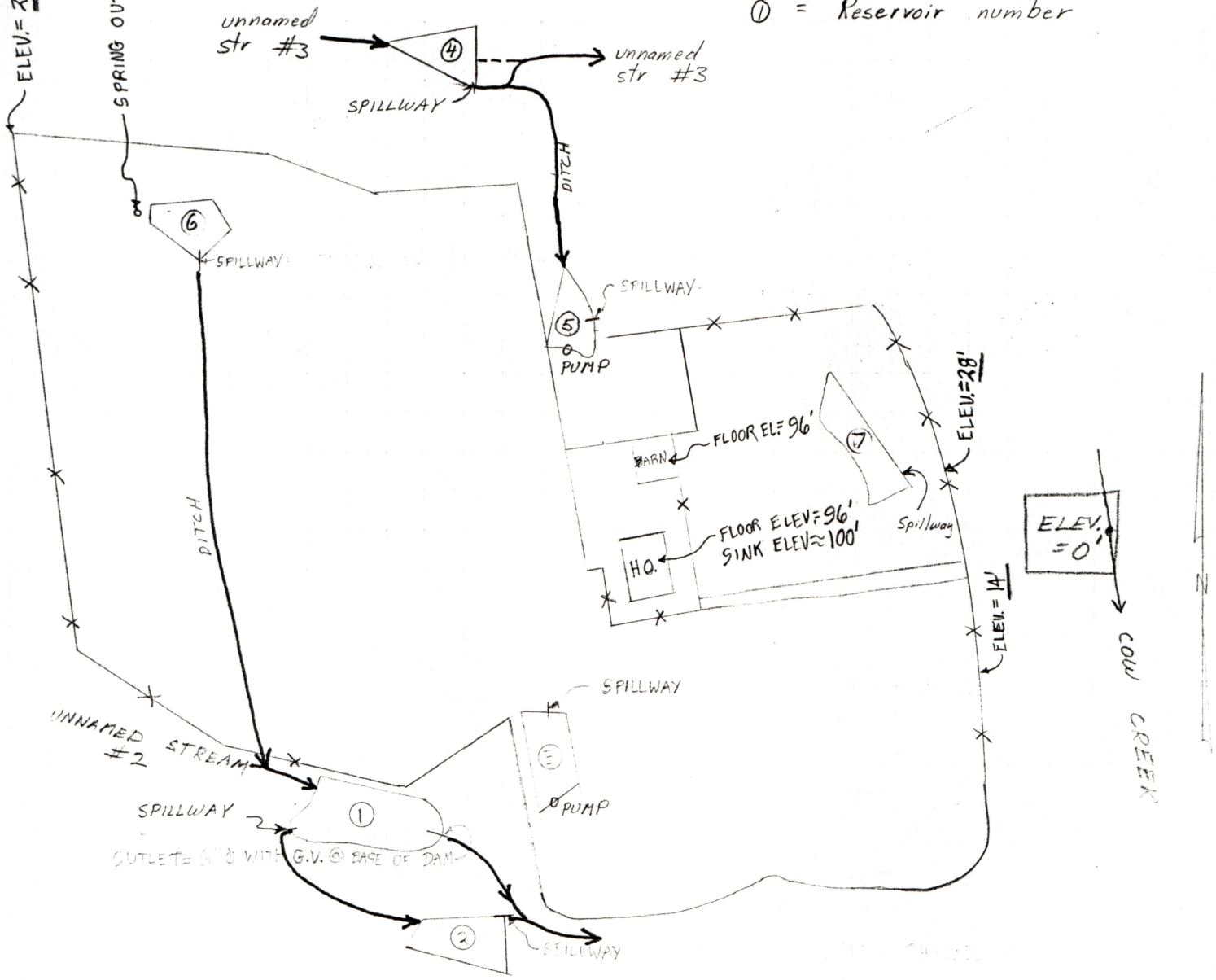
POND #3 (SEE DIV. PT. #3, page 3) Div pt located @ east end of reservoir #1. This pond receives run-off water and water from Res #1. I did not designate a ~~specific~~ separate div. pt. for this pond or for ponds 6 and 7.)

The following pages give reservoir info.

Stock animals (cattle & 2 horses) have access to all ponds except #3, 4.

Terry, Leonard
A# 58177, R-58176
Enlargement of Surveyed Area
showing spillways & lift info
(Not to Scale)

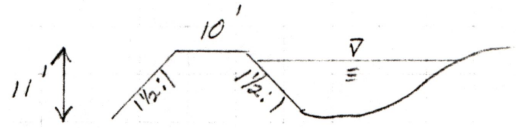
— Approximate stream & ditch locations
① = Reservoir number



RESERVOIR INFO

Numbers correspond to PTS & previous page, not app. map

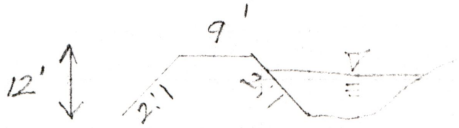
#1 EMBANKMENT CONDITION: good; scattered grass. Horses have access to this pond. Pond is in-channel and in approx. location shown on app. map.



Dam X-section

WATER DEPTH: 8-10' (per Terry)
EMBANKMENT LENGTH: All but west edge of res. ~450'
SPILLWAY: 5' wide dirt trench. Bottom is ~6' below dam crest at west end of reservoir.
CREST ELEV: 142' } east end of reservoir
WATER SURFACE: 138' }
OUTLET: 6" ϕ pipe with gate valve @ D.S. base of dam. This is the only pond w/ spillway & outlet conduit. Minor erosion around outlet pipe.

#2 EMBANKMENT CONDITION: minor erosion @ center of D.S. side. This reservoir is in-channel and receives water from Res. #1 spillway. Dam is soil and some rock. little vegetative cover. Location on app. map is correct.

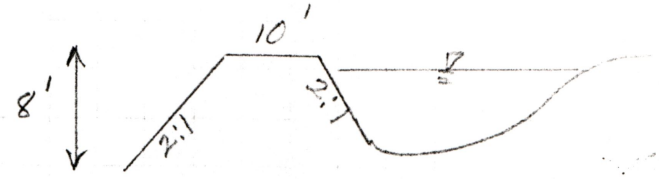


Dam X-section

Water Depth: 8-12' (per Terry)
Embankment Length: ~125' (east end is 5' res.)
Spillway: 2' deep x 8' wide earth channel. Water flows back into stream at 2.
Crest Elev: 113'
Water Surface: 111'

RESERVOIR INFO

#3 EMBANKMENT CONDITION: good; covered w/ thick grass and some blackberry. Reservoir is not in-channel as shown app map. Water from run-off and Res #1. Pond is partially dug w/ spoils forming dam. Irrigation water is pumped directly from this pond.

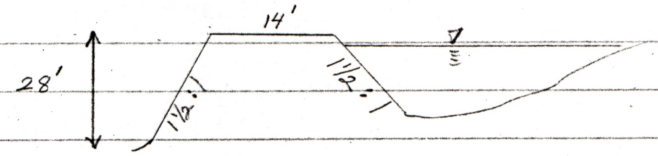


WATER DEPTH: 5' (per Mrs. TERRY)
EMBANKMENT LENGTH: ~200' (all but west side of res.)
SPILLWAY: 2' deep X 4' wide earth channel
CREST ELEV: 120'
WATER SURFACE: 115' @ present, could be increased to 118'
Reservoir is located in the middle of a field.

Pump: Sears 2 HP motor @ 3450 RPM
CDD pump 2" x 1½"

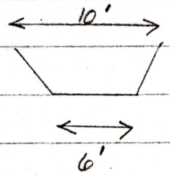
Reservoir Info

#4 EMBANKMENT CONDITION: Embankment is loose soil & rock with no vegetative cover; some log and tree stumps in fill; seepage seen on D.S. side of embankment but no erosion. Reservoir is in-channel. Location as shown on app. map



Dam X-section

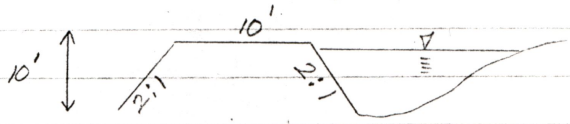
WATER DEPTH: 15' (per Mr. Terry)
EMBANKMENT LENGTH: 145' (east end of reservoir)
SPILLWAY: Bottom of earth channel is 3½' below crest.



(SPILLWAY X-section)

Cow Creek road is D.S. from this embankment. Water stored in Res #4 can be routed back into stream #3 or into Res #5.

#5 EMBANKMENT CONDITION: Minor erosion on embankment face caused by water flowing from spillway. Embankment heavily used by stock, little vegetative cover. This pond is not in-channel and is partially excavated w/ spoils forming embankment. Pond not in location shown on app. map.



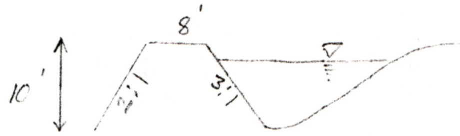
WATER DEPTH: 8' (per Mr. Terry)
EMBANKMENT LENGTH: ~100' (east edge of reservoir)
SPILLWAY: 2 - 6" ϕ pipes are 1' below crest
CREST ELEV: 97'
WATER SURFACE: 96'

PUMP: Century motor 7½ HP @ 3600 RPM
CDD pump 2¼" X 1⅞" ID
200 gpm rating

Reservoir is located in the middle of a field. Water is pumped directly from this reservoir for irrigation. Source of water is run-off and flow from Res #4.

Reservoir Info

#6 Embankment Condition: good; This small pond holds water from a spring ~150' west of the pond. Water is used for domestic purposes @ Leonard Terry's house. Terry did <u>not</u> file on the spring on this permit. Res. is not in-channel. There is <u>no</u> well defined stream channel below the spring. Spring is not visible - Terry installed a french drain.



Embankment Length: ~50' (east edge of res.)
Spillway: 2'x2' earth channel delivers water to unnamed stream # 2 above Res. # 1.
Crest Elev: 197'
Water Surface: 195'

Reservoir is located in the middle of a field.

 # 7 Embankment Condition: good; dam is grass covered. Reservoir is not in channel. Water source is runoff and a spring in the bottom of the pond (per Terry). Stock have access to this pond. Construction is unknown - dug w/ spoils leaving the embankment. Terry did not file on this pond. Pond appears to be very shallow.

Embankment Length: ~200' (east side of res.)
Spillway: 2' deep x 3' wide earth channel; water simply runs out onto field below pond. Bottom of spillway is 18"-24" below crest.

Reservoir is just above Cow Creek road.

Lynn Cashion
WRE
[illegible]

Calculations: (Values used are underlined in red throughout report)

$$Q_{RB} = \frac{(15)(5\text{ gpm})}{450\text{ gpm/cfs}} = 0.17\text{ cfs}$$

$$Q_{BIG\ GUN} = \frac{(1)(2)(48.4)}{450\text{ gpm/cfs}}\ ^{*} = 0.22\text{ cfs}$$

* used values for two 7/16" nozzles @ 80 psi to approximate 5/8 nozzl

$$Q_{HEADS} = Q_{RB} + Q_{BIG\ GUN} = 0.17 + 0.22\text{ cfs} = \underline{0.39\text{ cfs}}$$

$$Q_{PUMP\ @\ RES.\ 3} = \frac{7.05\,(2\text{ HP})}{-50' + 114'}\ ^{*} = .22\text{ cfs} \quad \text{(maximum)}$$

* 1) assume 80% efficiency and 45 psi operating pressure for RB
2) -50 Terry states he pumps downhill. This value is elevation difference between Res #3 and the middle of lower fields.

$$Q_{PUMP\ @\ RES\ 5} = \frac{7.05\,(7.5\text{ HP})}{10' + 208'}\ ^{**} = 0.25\text{ cfs}$$

** 1) assume 80% efficiency and 80 psi operating pressure for Big Gun nozzle
2) 10' lift – maximum flow would occur when Big Gun nozzle is being used immediately above reservoir. Assume small lift – e.g. 10'

$$Q_{BOTH\ PUMPS} = \underline{0.22 + 0.25 = 0.47\text{ cfs}}$$

$$Q_{ACRES} = 31.1/70 = \underline{0.44\text{ cfs}} \quad \text{(use this value for total flow calc.)}$$

$$Q_{TOTAL} = \text{irrigation (value based on \# of heads)} + 4\text{ domestics}$$
$$= 0.39 + 4(.005) = \underline{0.41\text{ cfs}}$$

Reservoir Volumes:

#1 Area = .4 A (planimeter and direct scaling)
Volume = (.4A)(10')(.4) = 1.6 A.F.

#2 Area = .3 A (planimeter and direct scaling)
Volume = (.3A)(10')(.4) = 1.2 A.F.

#3 Area = .2 A (planimeter and direct scaling)
Volume = (.2A)(5')(.3) = 0.3 A.F.

#4 Area = .5 A (direct scaling)
Volume = (.5)(15')(.4) = 3.0 AF

#5 Area = 0.1 A (direct scaling)
Volume = (.1A)(8')(.3) = 0.2 AF

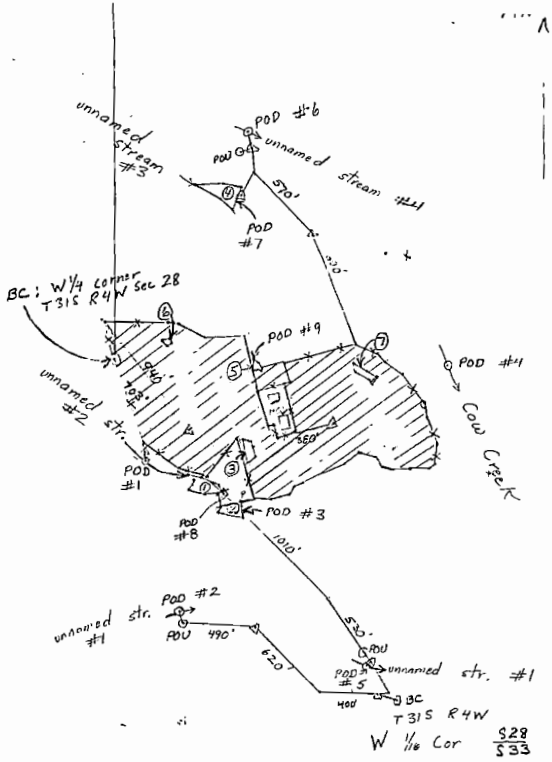
Volumes of reservoirs #6 & 7 were not calculated because Mr Perry did not like on either. Res #6 has a very small surface area and appears to be <10' deep. Res. #7 appears very shallow.

Storage is greater than the 2.0 AF listed in the permit

Drafting Notes: Section layout from 1972 BLM survey of Sec. 27, 28, 33, 34

Cert # 9609 area traced from adjudication maps. East line of NW¼ SE½ is what I used to "line up" with. Except for one very small area, western portions of #9609 lie within unirrigated area by ponds #1, 2.

Terry, Leonard
A # R-58176, 58177
4" = 1 mile
2/28-29/84 and 3/1/84
① = reservoir number



POSSIBLY SET-UP FOR RE-INSPECTION.

REPORT:

1) NEEDS SEVERAL USES IDENTIFIED
2) ADDRESS OWNERSHIP OF PROPERTY ON BOTTOM PG. 2
3) WHY (IN DETAIL) RES'S # 5, 6, 7, 8 DON'T APPEAR ON MAP
4) ARE THE TWO SPRINGS ACCOWED OR NOT

MAP

1) WHAT HAPPENED (& WHY) TO DIV. PT. #9 & RES #5
2) ARE THERE TWO MOBILE HOMES @ DIV. PT. #2 (AS SEEN IN REPORT)
3) SHOW PIPELINES OR DITCHES (FOR INSTANCE DIV. PT. #8 TO RES #3)

PROP CERT (FOUND ON COMPUTER)

1) MISSING POD. LOCATION FOR DIV. PT. #6
2) ADDRESS DOM TO INCL. L & G WHICH FAMILIES HOUSES