

5/5/03

4" pipe - gravity feed.

Normally, he can run 10 sprinkler heads.
drought years 5 sprinkler heads.

See map for adjustment on POU.

- Soil Conservation helped put the pipeline in. 1954
Designed 8-1-1955 → priority to 1956.
- Tax records.
- Copy warranty deed for dad. 12/28/1953.
- soil information for more than 0.02 cfs.

Bill Conlin

Aug. 26, 1955

a location survey was made for a gravity sprinkler system. The line was started at a selected point near the Blackfoot River and was run on a Bearing of $S 84^{\circ} E$, assuming a declination of about $17\frac{1}{2}^{\circ} E$.

The total fall was 145.4 ft. The length was approx. 2700 ft. Assuming a Quantity of flow = 70 gpm, then friction loss = $0.17 \frac{\#}{ft}$ for 4" steel pipe, using $K_s = .40$.
Total friction loss = $.17 \times 2.31 \times 27 = 10.6 \text{ Ft.}$
The pressure at the end of the gravity line, where sprinkling would start is
$$\frac{145.4 - 10.6}{2.31} = \frac{134.8}{2.31} = 58 \frac{\#}{ft}$$

when the pipe comes out of the spring, it is necessary to run it on a grade for several hundred feet. The grade selected was $0.4' / 100'$.



APP.

Bill Conlin - Gravity pressure main
Soda Springs, Idaho

Problem: Design anchor block for vertical bend in steel pipe line.

Given:

Pipe size - 4" 14 ga. welded steel.
head on pipe at anchor - 14.5 ft.
angle of upper leg to horizontal - $6^{\circ}20'$
angle lower leg to horizontal - $0^{\circ}30'$
 $Q = 70 \text{ gpm} = 0.156 \text{ cfs.}$
Length upper leg - 400'
Length lower leg - 100'

Reference: pages 343 & 344 Handbook welded steel pip.

Solution:

Assume pipe held rigidly at anchors, supported in shallow trench, which will permit pipe to move, and at least one expansion joint between anchors.

Determine thrust produced by upper leg:

First factor $L \sin x = 400 \sin 6^{\circ} 20' = 400 \times 0.11 = 44 < 50$
disregard.

Second factor $H = 145 < 275$ so disregard.

Third factor $\frac{D^2}{D^4 H} = \frac{0.156^2}{(4)^4 145} = \frac{.024}{37,120}$

$= .000000646 < .000035$ so disregard.

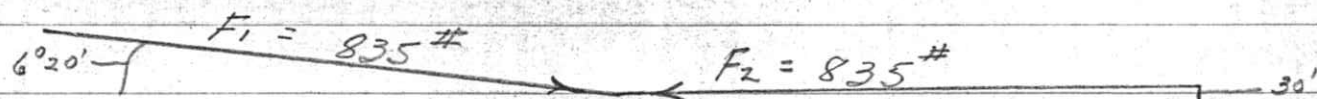
$\therefore$ axial thrust $= 0.36 D^2 H$
 $= 0.36 \times (4)^2 \times 145 = 835 \text{ \#}$

Determine thrust by lower leg

$$L \sin x = 100 \sin 30' = 100 \times 0.009 = 0.9 < 50 \text{ disregard}$$

$$\therefore \text{upper leg} = \text{lower leg} = 835^\#$$

Determine Resultant



$$R = \sqrt{F_1^2 + F_2^2 + 2 F_1 F_2 \cos L}$$

$$L = 180 - (6^\circ 20' + 30') = 173^\circ 10'$$

Since $L > 90^\circ$ $\cos L$ is —

$$R = \sqrt{835^2 + 835^2 + 2 \times 835 \times 835 \times 0.993}$$

$$R = \sqrt{8350} = 92^\#$$

The two forces are almost opposite and therefore almost cancel out. This small force indicates that an anchor block is not needed.

However, experience indicates the line will pull apart unless a block is used.

Check pipe sliding and temp. changes.

(4)

Sliding pipe

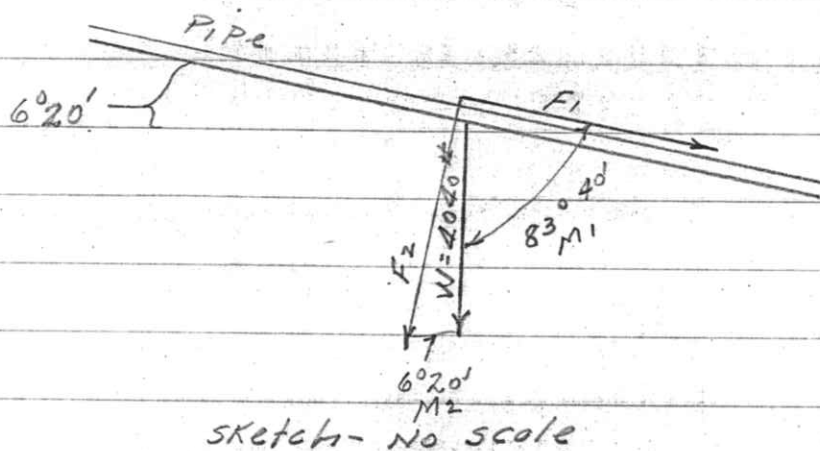
$$\text{weight of pipe} = 3.21 \text{ \#/'}$$

$$\text{weight of water} = .785 \times .333^2 \times 62.4 = 6.93 \text{ \#/'}$$

$$\text{Total weight} = 3.21 + 6.93 = 10.1 \text{ \#/'}$$

$$\text{weight upper leg} = 400 \times 10.1 = 4040 \text{ \#}$$

$$\text{Coefficient of friction} = 0.50 \text{ approx.}$$



$$F_1 = R \sin M_2 = 4040 \sin 6^\circ 20' = 4040 \times .110 = 444 \text{ \#}$$

$$\text{resistance to sliding} = 4040 \times .50 = 2020 \text{ \#} > 444 \text{ \#}$$

In order to slide the coefficient of friction must drop to 0.10, which it could not do in a trench. ~~Could~~



∴ pipe must pull apart and creep either because expansion coupler does not work, or because temperature thrust exceeds resistance to pipe sliding.

Design anchor block to stand $\frac{1}{2}$ thrust or pull due to temp change.

Total stress or thrust = $E C_T T A$

(page 42 "Elements of str. design" by Baker, and page 78 "Formulas for stress & strain" by Roark)

$$E = 30,000,000$$

$$C_T = \text{coefficient of steel expansion} = .0000065$$

$T = \text{temp. change. assume } 30^\circ \text{ each way, and design uniform block to withstand either } 30^\circ \text{ thrust or } 30^\circ \text{ pull, or a total of } 60^\circ.$

$$A = \text{x-sectional area of pipe} = \pi(R^2 - R_o^2)$$

$$R^2 = 2^2 = 4''$$

$$R_o = 2 - .0747 = 1.925''$$

$$R_o^2 = 1.925^2 = 3.70''$$

$$A = 3.1416 (4 - 3.70) = 3.1416 \times .30 = 0.943''$$

$$P = 30,000,000 \times .0000065 \times 30 \times 0.943$$

$$= 195 \times 28.30 = 5530''$$

Assume uniform section with $\frac{1}{2}$ of thrust or pull transmitted to anchor, and $\frac{1}{2}$ to Dresser Coupler.

Design $P = \frac{1}{2} \times 5530 = 2765 \#$

None To Coupler

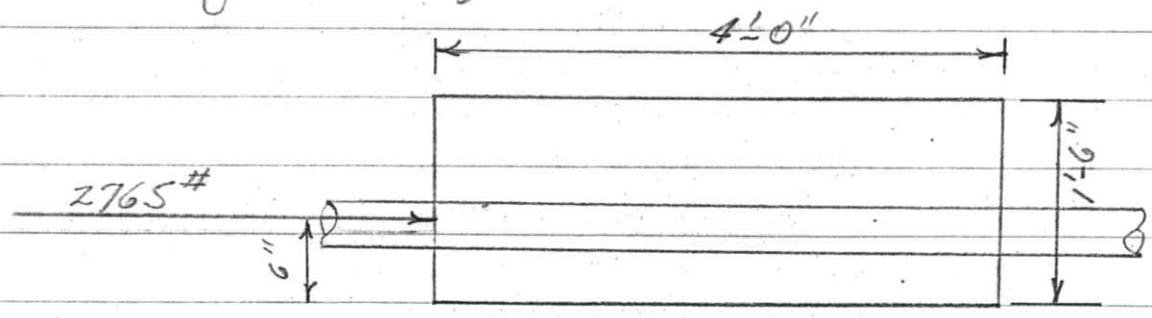
Possible failure of anchor

- (a) Tendency to Overturn
- (b) Slide
- (c) Crush toe
- (d) Shear
- (e) Pipe slip through block

See page 342 welded steel pipe line also page 252 Fig 63

Assume section

height = 1.5 ft.
width = 3.0 ft.
length = 4.0 ft.



Side view - sketch

$$\text{Moment of thrust about toe} = 2765 \times 0.5 = 1400' \#$$

$$\text{Weight of Anchor} = 1.5 \times 3 \times 4 \times 150 = 2700 \#$$

$$\text{Moment of Anchor weight} = 2700 \times 2 = 5400' \#$$

$$\text{Moment of resultant} = 5400 - 1400 = 4000' \#$$

$$\text{Distance from toe to where resultant cuts base} = \frac{4000}{2700} = 1.48'$$

$$\text{Distance to middle 3rd} = \frac{4.0}{3} = 1.33 < 1.48 \text{ O.K.}$$

Sliding

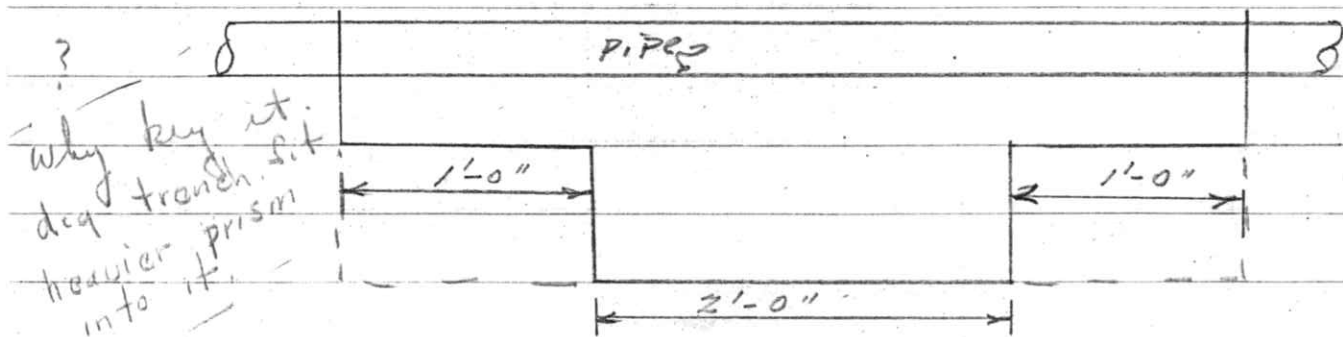
$$\text{Force tending to slide} = 2765 \#$$

$$\text{Coeff. of friction of masonry on moist clay} = 0.33$$

$$\text{Weight of str.} = 2700 \#$$

$$\text{Force resisting slide} = 2700 \times .33 = 890 \# < 2765 \#$$

It will be necessary to key base as:



Crush toe

$$\text{pressure at toe} = S_1 = \frac{R_v}{d} \left(1 + \frac{6e}{d}\right)$$

$$R_v = 2700^\# \quad d = 4.0' \quad e = \frac{4}{2} - 1.48 = 2 - 1.48 = 0.52$$

$$S_1 = \frac{2700}{4} \left(1 + \frac{6 \times 0.52}{4}\right) = 675 \times 1.78 = 1200^\#/'$$

which is much less than allow. $2000^\#/'$ for soft clay.

Shear

$$\text{Force causing shear} = 2765^\#$$

$$\text{Area resisting shear} = 3 \times 4 = 12' = 12 \times 12 = 144''$$

$$\text{shearing unit stress} = \frac{2765}{144} = 19^\#/'$$

which is much less than $60^\#/'$ allowed for $2000^\#$ non-reinforced concrete.

(9)

Pipe slipping through block.

$$\text{Actual stress} = \frac{\text{Total thrust}}{\text{Area bonded}} = \frac{V}{O}$$

$$V = 2765$$

$$O = \pi d L = 3.1416 \times 4 \times 48 = 604$$

pipe should be
cleaned of tar to
develop "bond" required.

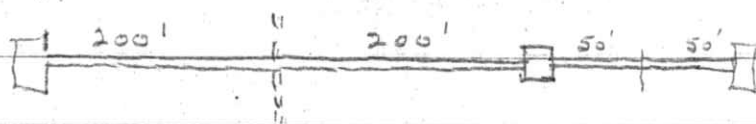
$$N = \frac{2765}{604} = 4.6 \#/\text{sq}''$$

This is much less than $90 \#/\text{sq}''$ allowed for
plain bars with ends not hooked.

APB
12/12/55

Looks OK to me
Key

In computing expansion if $\frac{1}{2}$ the length of
the coupler is allowed then



-6+21.1

$$\text{Expansion} = 200 \times 12 \times .0000065 \times (52 + 40) \\ 2400 \times 92 \times .0000065 = 1.45'' \text{ (over)}$$

The expansion was computed for temperature changes of 92 deg F. 52° above (Temp water), to 40° below (minimum in Blackfoot Area.) This is true if pipe is exposed or improperly buried.

Under a heavy snow cover buried pipe will seldom get much colder than +32°F In the trench no warmer than +80° -

So expansion in "200'" would be

$$E = t \times l \times C_e$$

$$= 48 \times 200 \times 12 \times .0000065 = \underline{0.75"} \quad \text{128}$$

Under these conditions minimum expansion would be 1" for 200' or 1.12" for 300'; So couplers could be 500 to 600 feet apart with anchors at ends and midway between expansion joints. If water is running in pipe continuously no expansion will take place if water is of uniform temperature.

RIGHT OF WAY DEED

KNOW ALL MEN BY THESE PRESENTS, that William Conlin and Ada J. Conlin, husband and wife, and Roy J. Dygert, also known as R. J. Dygert, and Eva I. Dygert, husband and wife, of the County of Caribou, State of Idaho, for and in consideration of the sum of TEN AND NO/100 (\$10.00) DOLLARS, lawful money of the United States of America, and other valuable consideration, to them in hand paid, the receipt whereof is hereby acknowledged, have granted, bargained, sold and conveyed, and by these presents do grant, bargain, sell and convey unto Monsanto Chemical Company, a Corporation, as and for a right of way for a haulage road, the following described parcel of land, situated in the county of Caribou, State of Idaho, to-wit:

Commencing at a point in a fence, which is North 1821 feet and East 3960 feet from the southwest corner of section 14, Township 7 South, Range 42 East of the Boise Meridian; thence south $62^{\circ}32'$ West 1883.47 feet to the P.S. of a curve Left; thence 679.16 feet on an $8^{\circ}00'$ curve with 200 foot spirals on each end to the P.T. of the curve; thence south $24^{\circ}18'$ West 932.30 feet to the P.S. of a curve Left; thence 600.00 feet on a $4^{\circ}00'$ curve with 200 foot spirals on each end to the P.T. of the curve; thence south $8^{\circ}18'$ West 250.87 feet to the P.S. of a curve Left; thence 568.96 feet on an $8^{\circ}21'$ curve with 200 foot spirals on each end to the P.T. of the curve; thence south $22^{\circ}31'$ East 264.79 feet to the P.S. of a curve Right; thence 610.05 feet on a $7^{\circ}23'$ curve with 200 foot spirals on each end to the P.T. of the curve; thence south $7^{\circ}45'30''$ West 490.44 feet to the P.S. of a curve left; thence 880.50 feet on a $3^{\circ}00'$ curve with a 200 foot spiral on the northerly end to a point, in a fence, which is south 3960 feet and East 1369.4 feet from the southwest corner of section 14, Township 7 South, Range 42 East of the Boise Meridian.

The right-of-way is a parcel of land extending 50 feet on each side of the above described centerline for a linear distance of 4600.54 feet except that portion starting at a point on the centerline, which is North 530 feet and East 1749 feet from the southwest corner of section 14, Township 7 South, Range 42 East of the Boise Meridian; and following the centerline a linear distance of 2500 feet to a point on the centerline which is south 1830 feet and East 1297 feet from the southwest corner of section 14, Township 7 South, Range 42 East of the Boise Meridian; where the right-of-way is a parcel of land extending 75 feet on each side of the above described centerline. The total linear distance through this property is 7160.54 feet and right-of-way contains 19.31 acres.

Monsanto Chemical Company, a corporation, shall erect and maintain a lawful barbed wire fence on each side of the tract of ^{1/4} and ^{1/4} and ^{1/4} construction and the after. said fence will consist of 26 inches of wire netting and 2 strands of barbed wire.

Monsanto Chemical Company, a corporation, will install a 17 foot by 17 foot square clearance underpass under said haulage road in the Northeast one-quarter of the Northwest one-quarter (NE ¹/₄ NW ¹/₄) of section 23, Township 7 South, Range 42 E.B.M. Also a 24 inch diameter culvert for grantors' water main. Also an equipment crossing over the haulage road; also a dirt access road paralleling the haulage road in section 14 and 23, T 7 S, R42 E.B.M.

TO HAVE AND TO HOLD, the above mentioned and described premises unto Monsanto Chemical Company, a corporation, for the purpose of a haulage road, so long as the same may be needed for such purposes; that the above described property will revert to the abutting land owner if and when this road is abandoned; that Monsanto Chemical Company, a corporation, alone shall determine when it has abandoned said road and said road shall not be deemed abandoned until Monsanto Chemical Company, a corporation, shall notify William Conlin and Ada J. Conlin, husband and wife, and Roy J. Dygert, also known as R. J. Dygert, and Eva I. Dygert, husband and wife, of their successors in interest, in writing of its abandonment of said road.

WITNESS the hands and seals of the grantors herein, this 11th day of September, 1958.

William Conlin

STATE OF IDAHO)
COUNTY OF CARIBOU)

On this 11th day of Sept, 1958, before me, the undersigned, a Notary Public, in and for said county and state, personally appeared William Conlin and Ada J. Conlin, husband and wife, of Soda Springs, County of Caribou, State of Idaho, known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my of-

R42 E.B.M.

the persons whose names are subscribed to the foregoing instrument, do hereby acknowledge to me that they executed the same, TO HAVE AND TO HOLD, the above mentioned and described premises unto Monsanto Chemical Company, a corporation, for the purpose of a haulage road, so long as the same may be needed for such purposes; that the above described property will revert to the abutting land owner if and when this

road is abandoned; that Monsanto Chemical Company, a corporation, alone shall determine when it has abandoned said road and said road shall not be deemed abandoned until Monsanto Chemical Company, a corporation, shall notify William Conlin and Ada J. Conlin, husband and wife, and Roy J. Dygert, also known as R. J. Dygert, and Eva I. Dygert, husband and wife, of their successors in interest, in writing of its abandonment of said road.

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IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(Seal)
Commission Expires: 4-10-61

J. D. [Signature]
Notary Public
Residence: Soda Springs, Idaho

OPTION CONTRACT

For and in consideration of Seventeen Hundred Forty-Six and 90/100 Dollars (\$1746.90), paid to Roy J. Dygert, also known as William Conlin and Ada J Conlin R.J. Dygert, and Eva I. Dygert, his wife, FIRST PARTIES, by Monsanto Chemical Company, a Delaware Corporation, SECOND PARTY, receipt of which is hereby acknowledged, FIRST PARTIES hereby grand SECOND PARTY the following rights:

FIRST:

The right for SECOND PARTY, its agents and contractors to enter upon and conduct all surveys and explorations necessary to locate a private highway over and across the land located in Caribou County, Idaho, described as follows:

In T7S, R 42 E, Boise Meridian:
W $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, Sec. 14:
NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, Sec. 23

SECOND:

The exclusive option for SECOND PARTY to purchase a strip of land (a part of the above-described land) on either side of the centerline location set forth below described as follows:

Commencing at a point (A), on a fence line which is north 1860 feet and east 3960 feet from the SW corner of Sec. 14, T7S, R42E, B.M.; thence south westerly 80 feet on a 3°00' curve Rt. to a point (B) which is the P.T. of said curve; thence S 66° 16' W 1,460.77 feet to a point (C) which is the P.C. of a curve; thence 839.00 feet on a 5°00' curve Lt. to a point (D) which is the P.T. of said curve; thence S 24° 19' W 1,069.27 feet to a point (E) which is the P.C. of a curve; thence 805.00 feet on a 2°00' curve Lt. to a point (F) which is the P.T. of said curve; thence S 8° 13' W 142.83 feet to a point (G) which is the P.C. of a curve; thence 560.00 feet on a 5°30' curve Lt. to a point (H) which is the P.T. of said curve; thence S 22° 35' E 267.88 feet to a point (I) which is the P.C. of a curve; thence 605.83 feet on a 5°00' curve Rt. to a point (J) which is the P.T. of said curve; thence S 7° 42'30" W 893.66 feet to a point (K) which is the P.C. of a curve; thence 482 feet on a 3°30' curve Lt. to a point (L), on the curve and a fence line, which is south 3,960 feet and east 1,290 feet from the SW corner of Sec. 14, T7S, R42E, B.M.

defects in the title of which they are given written notice.

- C) The sale shall be closed at the offices of the Caribou County Abstract Company, Soda Springs, Idaho, thirty (30) days after the date the option is exercised or on such prior date as the parties may agree. At such closing the general warranty deed and possession shall be delivered to SECOND PARTY and that portion of the purchase price called for by paragraph A paid to FIRST PARTIES.

THIRD:

In the event SECOND PARTY exercises its option, the SECOND PARTY shall erect a lawful wire fence along the property line of the above described strips of land before construction of the haulage road is begun. Said fence will consist of 26" of wire netting and 2 strands of barbed wire. SECOND PARTY, hereby agrees that they will maintain and keep the fence in good repair after its completion. SECOND PARTY agrees to install a suitable ^{equipment w/c} ~~equipped~~ under-pass at approximately where SECOND PARTIES' road intersects the existing road between FIRST PARTIES' house and East field; said under-pass to be 17' wide and 17' high, square clearance. SECOND PARTY agrees to provide an ^{equipment w/c} ~~equipped~~ crossing ^{over w/c} ~~under~~ SECOND PARTIES road at approximately the NW corner of the SW one quarter of the SE one-quarter of Section 14, township 7S, Range 42, East of the Boise Meridian. SECOND PARTY agrees to install a 24" diameter culvert enclosing FIRST PARTIES water line where water line passes, or will pass under SECOND PARTIES road. SECOND PARTY agrees to build at or before the time of construction of its haulage road a dirt access road like the FIRST PARTIES existing dirt road, which will parallel and be on the West side of the FIRST PARTIES haulage road in Section

subject to the condition that the property will revert to the
abutting land owner if and when this road is ~~shanded~~^{abandoned}; that
the SECOND PARTY alone shall determine when it has ~~shanded~~^{abandoned}
said road and said road shall not be deemed ~~shanded~~^{abandoned} until
the SECOND PARTY shall notify the FIFTY PARTY or the succes-
sors in interest, in writing of its abandonment of said road.

In the event SECOND PARTY does not exercise the option to
purchase, granted it under this contract within the time limit
specified, FIRST PARTY shall be entitled to retain the amount
receipted for above by FIRST PARTIES free and clear of any claims
by SECOND PARTY.

This agreement shall be and is binding upon the heirs,
administrators, executors, successors and assignees of all
parties hereto.

IN WITNESS WHEREOF, this Option Contract has been executed
as of this 9th day of June, 1958.

SECOND PARTY

MONSANTO CHEMICAL COMPANY

FIRST PARTIES

BY: Wallace P. Dumlub

TITLE: Production Superintendent

William Conline

Ada J. Conline

B. L. Dygert

Eva L. Dygert

CROPLAND

DRY CROPLAND

<u>Conservation Cropping System</u>	<u>Fields 1-4</u>	<u>623 Acres</u>
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Fields 1-4 are cropped on a 2 year rotation consisting of 1 year grain and 1 year fallow.

IRRIGATED CROPLAND

<u>Hayland Renovation</u>	<u>Fields 5, 11-13</u>	<u>49 Acres</u>
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The above field will be in hay until production decreases. Then 1 year of grain will be grown to prepare a good seedbed.

<u>Crop Residue Use</u>	<u>Fields 1-5 & 11-13</u>	<u>672 Acres</u>
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All crop residues will be incorporated into the soil.

FARM IRRIGATION SYSTEM

The water for field 5 originates from a spring in field 8. The water for fields 11-13 originates in the northeast corner of field 2.

<u>Sprinkler Irrigation System</u>	<u>Fields 5, 11-13</u>	<u>2 No.</u>
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A gravity sprinkler has been installed in field No. 5. Fields 11-13 are also sprinkler irrigated.

<u>Irrigation Water Management</u>	<u>Fields 5 & 11-13</u>	<u>49 Acres</u>
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The above fields will be irrigated when the available moisture in the root zone is reduced to approximately 50% of field capacity.

PASTURE LAND

<u>Pasture Planting</u>	<u>Field 8</u>	<u>130 Acres</u>
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130 acres in field 8 was seeded to Brome and Alfalfa this spring.

<u>Proper Pasture Use</u>	<u>Field 8</u>	<u>130 Acres</u>
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The pasture will be grazed so as to maintain good plant vigor.

RANGELAND

<u>Range Seeding</u>	<u>Field 6</u>	<u>87 Acres</u>
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OUR SOIL • OUR STRENGTH



Prepared

SOIL and CAPABILITY MAP

UNITED STATES DEPARTMENT of AGRICULTURE

SOIL CONSERVATION SERVICE

cooperating with

Caribou S.C.D.

S.C. DISTRICT AND AGENCIES COOPERATING IN SOIL SURVEY

OWNER

OPERATOR William Conlin

Caribou

COUNTY

FARM NO.

7

DATE 8-1-56

SCALE

ACRES 1280

APPROXIMATE

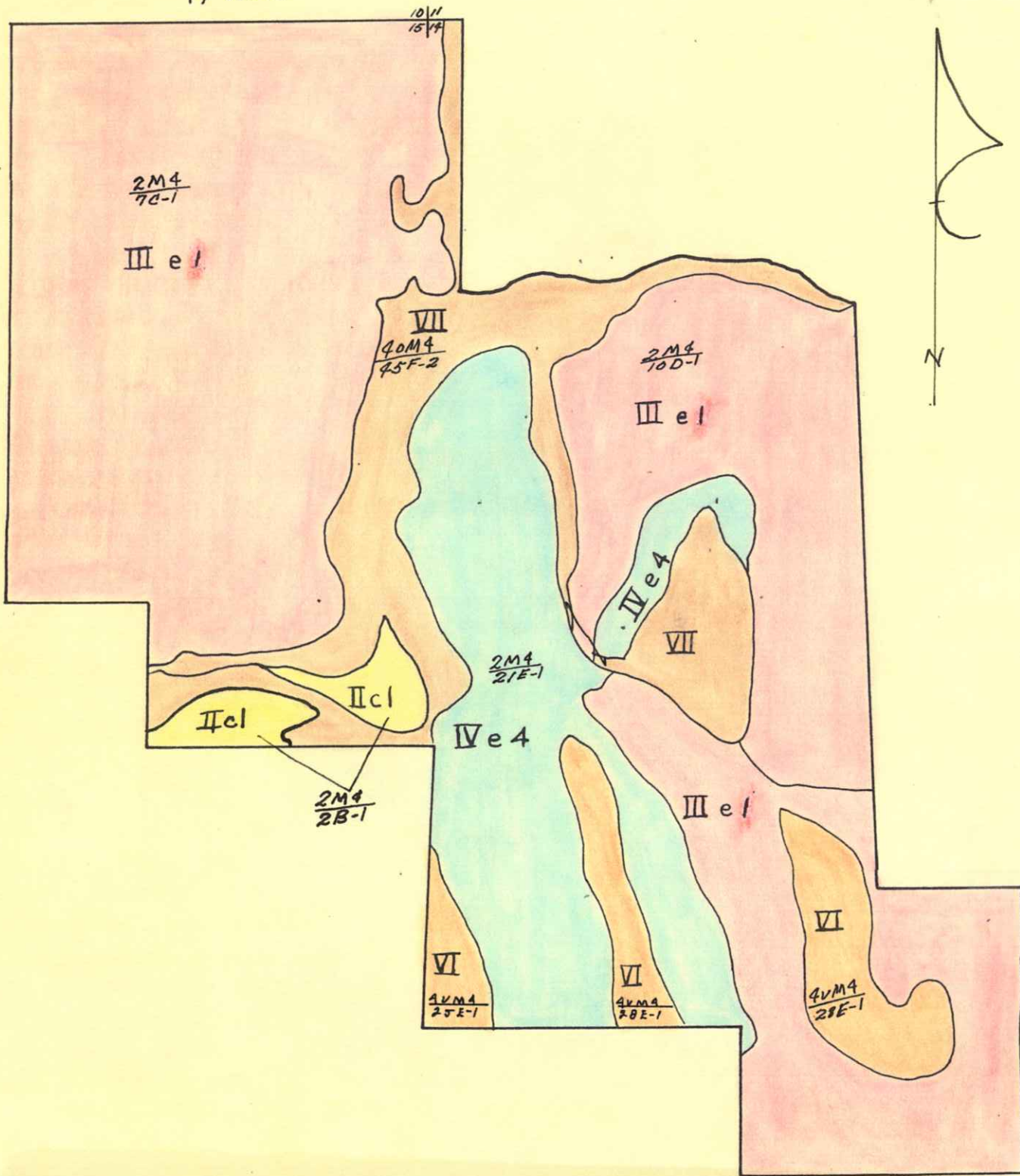
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Idaho

STATE

R 42-E

T
7
S



Bill Conlin
Soda Springs

June, 1964
1338 Acres

INTRODUCTION

This farm is divided into two units. One is located just south of Soda Springs and the other unit is located on the Blackfoot River. This is a diversified operation consisting of a farm flock and grain.

LAND RESOURCES

The attached soil and capability maps show the type of soil, percent of slope and degree of erosion present on your land. These factors have been considered in determining the land capability classes which are denoted by colors on the map. Also a brief description of each soil map legend is included in this plan.

CONSERVATION PLAN

<u>Field No.</u>	<u>Land Use</u>	<u>Acres</u>
Misc.		15
1	Dry Cropland	145
2	Dry Cropland	165
3	Dry Cropland	105
4	Dry Cropland	208
5	Irrigated Cropland	10
6	Rangeland	123
7	Rangeland	154
8	Rangeland	318
9	Rangeland	42
10	Pasture	15
11	Irrigated Cropland	14
12	Irrigated Cropland	15
13	Irrigated Cropland	10
Total		1324

Misc.	15
Irrigated Cropland	49
Dry Cropland	623
Rangeland	<u>637</u>
	1324

SOIL DESCRIPTIONS

Bill Conlin

Soil
Slope and erosion = Capability

Class I soil is the very best soil with Class VIII soil being the worst. Class I to IV soil can be cultivated and Class V to VIII are used for range and wildlife. There are four subclasses to each class. They are e-erosion, w-wetness, s-soil condition and c-climatic condition. E has the severest limitation and C the least. The most ideal soil would be Class I with no hazards.

Class IIIel (Red)

This unit includes medium textured soils having 4 to 8 percent slopes and loamy or silty clay subsoils. They have a useable root zone of more than 36" deep, and a water-holding capacity of approximately 2.1 inches per foot of depth. These soils have a permeability of 1.5 to 2.5 inches of water per hour. The soils in this unit have a 110 day growing season.

2M4
6C-1

2M4
7C-1

2M4
10D-1

IIcl (Yellow)

This soil is over 36 inches deep and has a medium textured surface soil. This soil has a water-holding capacity of 2.1 inches per foot of soil. The permeability ranges from .80 to 2.5 inches per hour. The soils in this unit have a 110 day growing season. The slope ranges from 0 to 2 percent.

2M4
2B-1

Class IVw37 (Blue)

This unit includes moderately fine textured soils with slopes of 0 to 4 percent. These soils have a useable root zone over 36 inches deep and a water-holding capacity of approximately 2.3 inches per foot of depth. They have a high organic matter content. The soils in this group have a water problem in the spring.

2M42
3B-1-W2

LAND CAPABILITY CLASSES

LAND SUITED FOR CULTIVATION

CLASS I

Best land for cultivated use. Deep soil, nearly level, little or no erosion, adapted to a wide variety of crops. No special difficulties in farming.

CLASS II

Good land for cultivation. Gentle slopes, usually moderately deep soil, or other minor problems. Frequently requires some moderate degree of protection from erosion or improvement of the drainage.

CLASS III

Moderately good land for cultivation. Usually gentle slopes but somewhat steeper than those in Class II; commonly shallow soils or with moderate to severe erosion. Some level land with poor drainage and with alkali in places. Needs special protection from erosion, waterlogging, or other hazards.

CLASS IV

Fairly good land. Suitable for occasional cultivation, usually not more than 1 year in 6. Best suited for hay or pasture, or for orchards and vineyards if protected by cover crops. Some Class IV land can be used for seasonal or other special crops under very careful management.

LAND NOT SUITED FOR CULTIVATION

CLASS V

Very well suited for grazing or forestry depending on climatic conditions. Has little or no physical limitation for such use and requires only good range or woodland management.

CLASS VI

Well suited for grazing or forestry. Characterized by steep slopes, susceptibility to erosion, shallow soils, alkali or other unfavorable conditions and requires more careful management than Class V land. Safely used for orchards or vineyards under permanent cover.

CLASS VII

Fairly well suited for grazing or forestry. Has major hazards or limitations such as: very steep slopes, shallow or droughty soils, excessive erosion, or severe alkali conditions. Requires very careful management.

CLASS VIII

Land not suited for cultivation, grazing, or forestry, but may be used for wildlife, recreation, or as a source of water supply.

LAND CAPABILITY SUBCLASSES

- e: Shows water erosion hazard as the most serious problem. Slope is the main type; or stream overflow damage.
- w: Shows wetness of soil as the most serious continuing problem. May be caused by high water table, seepage, ponding.
- s: Shows that some characteristic of the soil itself is the most serious problem. Such features are: shallow effective depth, heavy or coarse texture, stoniness, plant nutrient deficiencies.
- c: Shows that the most serious problem is the climate. Such conditions are: frost pockets, short growing seasons, excessive rainfall.

Often two or more limitations apply equally to an area. Where this is so, the first factor on the list is shown as the governing one.

IIc1 This soil is over 36 inches deep with a medium textured surface soil, usually a silt loam. This is underlain by a slightly heavier subsoil. The subsoil will not take water as readily as the surface soil. The slopes vary from 0 - 4 percent.

IIe2 This soil is over 36 inches deep with a medium textured surface soil, usually a silt loam. This is underlain by a slightly heavier subsoil. The subsoil will not take water as readily as the surface soil. The slopes vary from 4 - 15 percent.

IVe4 This soil is over 36 inches deep with a medium textured surface soil. This is underlain by a slightly heavier subsoil. The subsoil will not take water as readily as the surface soil. The slope varies from 15 - 30 percent.

VI These soils are over 10 inches deep. They occur on slopes from 0 - 30 percent.

VII These soils are over 10 inches deep. They occur on slopes from 30 - 60 percent.



6602 190

5/5/03
CB

7-18-70



Warranty Deed

THIS INDENTURE, Made this fourth day of June 1904,
in the year of our Lord One Thousand Nine Hundred and fourth, between Hor J. Dygart,
sometimes known as R. J. Dygart, and Ida E. Dygart, his wife
of Bode Springs, County of Caribou, State of Idaho
he part lot of the first part, and William Conlin

of Soda Springs, County of Garfield, State of Idaho
the part of the second part:

WITNESSETH: That the said parties of the first part, for and in consideration of the sum of One hundred fifty-five thousand (155,000) DOLLARS, lawful money of the United States of America, to us in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged

by these presents, Grant, Bargain, Sell and Convey and Confirm unto said party of the second part, and to their heirs and assigns forever: All that certain lot, piece or parcel of land situate, lying and being in the County of Caribou, State of Idaho, bounded and more particularly described as follows, to-wit:

The East half of the North West quarter, the East half of the South West quarter and the East half of Section 15; the North half of the North West quarter of Section 22; all of Section 23 and the North half of the South West quarter and the East half of the North West quarter; and the South West quarter and the East half of the South West quarter and the East half of the South West quarter of the North West quarter, lying South of the center line of the Blackfoot River in section 16, all in township 7 south of Range 42 east of the Boise meridian in Idaho containing 1200 acres more or less.

Together with all and singular, the tenements, hereditaments and appurtenances therunto belonging or in anywise appertaining, and the rents, issues and profits thereof.

TO HAVE AND TO HOLD, all and singular, the said premises, together with the appurtenances and privileges thereunto incident unto the said party of the second part, and to his heirs and assigns forever. And the said parties of the first part, and the said premises in the quiet and peaceable possession of the said party of the second part and his heirs and assigns against the said party of the first part, and their heirs and against all and every person or persons whomsoever, lawfully claiming or to claim the same, shall and will warrant and by these presents forever defend.

IN WITNESS WHEREOF, The said part ~~of~~ of the first part have hereunto set their hand s and seal
the day and year first above written.

Signed, Sealed and Delivered in the Presence of

Rose J. Dykert [Seal]
 B. J. Dykert [Seal]
 Eva L. Dykert [Seal]
 [Seal]

TO: County FSA Office

I, William BALT CONLIN authorize any personnel of the Idaho Department of Water Resources full access to any and all aerial photos (maps) of ground that I own or lease.

Wm Balt Conlin

Name

5-5-2003

Date

Department of the Treasury

District Director

Internal Revenue Service

Date:

March 15, 1973

In reply refer to:

L-154, Code 422



- ▷ Estate of William F. Conlin
% Ada J. Conlin, Executrix
179 East 2nd South
Soda Springs, Idaho 83276

Estate of: William F. Conlin
Date of Death: October 15, 1971

ESTATE TAX CLOSING LETTER

(This is not a bill for tax due)

The computation at the bottom of this letter shows the Internal Revenue Service's determination of the Federal estate tax liability for the estate named above. You should keep a copy of this letter as a permanent record, since your attorney may need it to close the probate proceedings for the estate. It, together with proof of payment, is evidence that the Federal estate tax liability for the estate has been settled.

Sincerely yours,

District Director

Gross estate tax.....	\$	3,805.31
Less credits allowed:		
State death taxes.....	\$	_____
Federal gift tax.....	_____	
Tax on prior transfers.....	_____	
Foreign death taxes.....	_____	
Total credits.....	\$	_____
Net estate tax.....	\$	3,805.31
Penalties, if any.....	\$	_____



Estate of: **William F. Conlin****SCHEDULE F—Other Miscellaneous Property**

(For jointly owned property which must be disclosed on Schedule E, see Instructions for Schedule E.)

- 1 Did the decedent, at the time of his death, own any interest in a copartnership or unincorporated business?
If "Yes," state business name and address.

Yes No

William F. Conlin Farm - See items 3 and 4 Schedule A and Farm Machinery below**x**

- 2 Did the decedent, at the time of his death, own any articles or collections having either artistic or intrinsic value, such as jewelry, furs, paintings, antiques, rare books, coins or stamps?
If "Yes," full details must be submitted under this schedule.

x

- 3 Was there any insurance which the decedent owned on the life of another which is not included in the return as a part of the gross estate?
If "Yes," full details must be submitted under this schedule.

x

- 4 Has the decedent's estate, his spouse, or any other person, received (or will receive) any bonus or award as a result of the decedent's employment or his death?
If "Yes," full details must be submitted under this schedule.

x

- 5 Did the decedent at the time of his death have a safe deposit box?
If "Yes," state location, and if held in joint names of himself and another, state name and relationship of joint depositor.

x**Idaho First National Bank****Ada J. Conlin - wife****Soda Springs, Idaho**

If any of the contents of the safe deposit box are omitted from the schedules in this return, explain fully why omitted.

Miscellaneous papers of no value

- 6 Did the decedent, at the time of his death, own any other miscellaneous property not reportable under any other schedule?

x

Item number	Description	Alternate valuation date	Alternate value	Value at date of death
1	1969 Plymouth Fury III automobile		\$	\$ 1,500.00
2	1964 Plymouth Belvedere automobile			200.00
3	1966 International Pickup			750.00
4	1 Massey F 1130 tractor and loader			8,000.00
5	1 Massey F 410 combine			8,000.00
6	1/2 mile 4" sprinkler pipe			400.00
7	400 feet 6" sprinkler aluminum mainline			200.00
8	1 Electric motor for sprinkler system			400.00
9	1 Chain saw			50.00
10	1 Concrete headgate			100.00
11	1 Concrete spring box			100.00
12	3 Metal grainaries			750.00
13	1 Large Metal Grainary			8,500.00
14	Water line from spring			1,000.00
15	6 gas tanks			150.00
16	Fences 6 1/8 miles			1,500.00
17	Hand tools			400.00
18	Welding Equipment			100.00
19	5 Heavy Harrows			100.00
20	5 Light Harrows			100.00
21	1 Spring tooth harrow			25.00
22	2 Diggers			400.00
23	2 Drills			2,500.00
24	2 Bottom John Deere moldboard plow			450.00
	Total from Continuation Schedule			29,308.24
	Less community one half of above			(32,491.62)
TOTAL (Also enter under the Recapitulation, page 3.)				\$ 32,491.62