

DASTK
W435

LEVEL BOOK

No. 389

435

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IRVING PARK STATION

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Index

L.H. Hill Inspection

Samples by fill. P.C. etc. 1-80.

MICROFILMED

JAN 1 1980

MARCH-23-1933

Shields promised to send Wood
into Salvation army 25-33

Hellman cutting in Olive Grove

Wiley not at work yard cleaned up.
3 tents on permit

Moisin, not cutting will get some
wood to Salvation army.

Friday

March-24-33

Shields hauling out, + cutting
up on West Sid of river.

Hellman - cutting in Olive Grove

Hellman + to take on load to
Salvation army - Sat.

Hellman - cut one small load
of olive wood, at Olive Grove.

Wiley all cleaned up.

Sat March 25-33

Mrs Shields in valley
38 cords on west side of river yet.
no wood cutting

no one in valley-

about 50 cords wood that
has not been hauled out

1 truck load of wood cut.

Road at north of river that goes to
Pamona very badly washed - would
need culverts widening and very steep
in places.

Monday - March 27-33

2

no wood cutting in valley

Quarry 8/17/33
 D.
 Shovel 1 - 19 - 67
 " 2 - 112 - 106
 " 6 - 113 - 95
 " 7 - 103 - 93
 377. 361

8/18/33
 Gravel Plant
 D. N.
 Sand 280 290
 3/4 - 75 55
 1 1/2 - 55 70
 2 1/2 - 70 90

Aug. 19

Quarry 4 shovels (1 idle repairs) 2 rock trucks, 1 truck misc, 7 drillers, 2 nippers, 2 padma, Reg. shop force
 Photo "C" Upstr. from distr. spillbank

Quarry		Gravel Plant	
S	N.	D	N.
Shovel 1 - 53	62	Sand 320	280
2 - 76	83	3/4 - 90	60
6 - 94	108	1 1/2 - 80	60
9 - 120	85	2 1/2 - 70	60
<u>343</u>	<u>338</u>		

Roads 1 cletrac, 1 road blade, 1 water truck

Gravel Plant Regular force

Aug. 21

Quarry - 4 shovels, 2 rock trucks, 1 truck misc, 7 drillers, 2 powd, 2 nippers, 2 labs, 1 cat. co, 1 cletrac (idle) Reg. shop force
 Photo "C" coards E. 4860 N. 4160
 N.B. for description of views 1-5 see F.D. Pyle.

Well	D.	El.	Gr. D.	El.	Covering
Upstr. toe	2.2	572.8	Poo 658.5		
1	13.0	620.4		663.4	663.4
2	21.2	647.9	7.0	662.1	669.1
3	16.7	657.1		659.1	668.8
4	10.8	657.6		659.2	668.4
5	32.0	638.5		663.5	670.5
6	19.2	652.8		661.3	672.0
7	35.7	640.3	9.7	663.6	676.0
Distr. toe	39.2	543.3			

Quarry loading

Quarry loading		Gravel Plant	
S	N.	D.	N.
Shovel 1 - 76	77	Sand - 210	180
2 - 83	102	3/4 - 60	50
6 - 91	103	1 1/2 - 80	60
9 - 60	44	2 1/2 - 100	85
<u>310</u>	<u>326</u>		

Aug. 22

Photo 1 Dam from site "1, 11:30 AM.

Photo 2 W. in spillway from coord. N. 4270
E. 5220 11:35 AM.

Photo 3 N.W. from coord. N. 4370 E. 5500

Note pick crew in background.

Quarry Same force as yest.

Sand & Gravel Plant Reg. force - sand
condition in pea gravel much im-
proved.

Quarry loading

Shovel	D.	N.
1	80	73
2	102	90
6	110	105
9	80	93
	372	361

Gravel Plant

Sand	D.	N.
	220	200
3/4"	65	60
1 1/2"	81	60
2 1/2"	85	65

Aug. 23

Quarry Same force - 1 man

killed, 1 injured in slide.

Distr. amb 1 fore. 11 lab's.

Gravel Plant same force as yest-
erday.

Well	D.	El.	Gr. F.	Casing	Bot. Elev.
Upstr. toe	2.2	572.8	Pool 659.0		
1	43.4	620.0	663.7	663.7	67.5 rock 595.9
2	31.0	648.1	662.1	679.1	89.6 579.6
3	11.5	657.3	659.1	668.8	112.0 556.8
4	31.8	636.6	659.2	668.4	100.0 568.4
5	16.8	653.7	663.5	670.5	117.6 552.9
6	18.8	653.2	661.3	672.0	60.5 503.5
7	36.2	639.8	663.6	676.0	72.2 503.5
Distr. toe	35.1	542.4			

Quarry loading

Shovel	D.	N.
1	91	81
2	88	78
6	90	90
9	96	87
	364	336

Gravel Plant

Sand
3/4"
1 1/2"
2 1/2"

Aug. 24

Quarry 3 shovels, 1, 2 & 6, 18 rock trucks
cat, 60 bulldozer, 7 jkhms, 2 powdermen,
2 rippers Reg. shop force.

Distr. emb. 1 fore, 10 laborers,
2 cats.

Gravel Plant idle

Borrow pit shovels 9 & 11, 1 cat & M,
2 dumpmen.

Aug. 25

Quarry shovels 1, 2 & 6, 76 taken to
silt beds in late PM. 16 rock trucks,

1 truck misc, 7 drillers, 2 powdermen,
2 rippers. Bal. force same.

Distr. emb. 1 fore, 10 labs 1/2 day
1 cat, 60, 1 dumpman

W	D	El.	Gr. D.	El.	Casing
upstratae	2.2	572.8			
1	43.5	619.9		663.4	663.4
2	30.9	648.7	9.8	659.3	679.1
3	11.0	657.8	9.7	659.1	668.8
4	12.1	656.0	9.2	659.2	668.5
5	16.0	654.5	6.0	664.5	670.5
6	8.1	663.6	5.7	666.3	672.0
7	34.5	641.5	7.3	668.7	676.0
Distr. toe	35.8	591.7			

Quarry loading

Gravel Plant

Work suspended
temporarily.

Shovel	D.	N.
1	81	72
2	9	90
6	96	111
9	82	0
	268	273

Quarry loading

Shovel	D.	N.
1	83	0
2	87	0
6	70	0
	240	

Note night shift
discontinued.

Aug. 26

Quarry shovel #1 (-2 idle) 9 drillers,
2 rippers, 2 powd., eat 60, reg skipper
rustcomb, 1 fore. slabs, 2 cats, 2 dump
Hydr. fill 2 shovels, 1 eat. 4 Me., 1 eat
bulldozer, 1 Hagman
Roads reg. force.

Quarry loading

Shovel #1 113 loads

Aug. 28

Quarry shovel #1, (-2 idle) 6 rock
trucks, 1 truck misc, 1 eat 60 ball,
5 drillers, 1 ripper, 1 powd. man,
1 helper, 3 slabs sloping,
Hydr. fill shovels 6, 9, 11 & 12, 1 eat.
60 bulldozer, 1 caterpillar bulldozer,
2 dumpmen, 1 checker, 1 Hagman

Well

Upstr. toe	2.1	572.9		
1	43.0	620.4		663.4 663.4
2	26.9	652.5		667.5 679.4
3	9.0	659.8	0.7	662.1 668.8
4	9.6	658.8	6.0	662.4 668.4
5	14.3	656.2		668.3 670.5
6	6.6	665.4		668.7 672.0
7	23.1	652.6	8.9	669.8 676.0
Downstr. toe	33.5	541.0		

Quarry loading

Shovel #1 - 104 loads

Aug. 29

Crack investigation above spillway
crack began at edge of cut about sta. 5200
extending east about 60 feet disappears a-
bout 30' from edge of cut.

Several small cracks between boulders
around sta. 4100.

Crack appears at about sta. 2120
5' in from edge of cut, extends back
20' from edge at sta. 2400.

Crack at 2400 about 30' from edge of
cut about 45' from edge at 1475, disappears
at upper side of large boulder.

Runs side above crack at about 1475, 30' back
from edge.

Numerous cracks appear above boulders
in various places.

Quarry shore 1-2 (wide) 9 drills, 2 rippers
2 piers, man, crack tracks, 100 lb ball, 100
shop force.

Dust emb. 1 force, 100 lb, 100 lb.

Aug 30

All forces on hydraulic fill
Quarry,

Well	D.	El.	Gr. D.	El.	Casing
Upstr toe	2.1	572.9			
1	43.0	620.4		663.1	663.1
2	20.4	659.0	7.0	672.4	672.4
3		661.1	4.3	664.5	668.8
4	8.3	660.1	4.0	664.4	668.4
5	23.0 dirt	657.0	8.0	672.6	680.6
6	2.5		3.0		682.2
7	Plugged				686.2
Dist toe	34.1	543.9			

Quarry
Shore 1-2 - 50 loads

Aug. 31

Photo "5" Spillway N.E. from coord
pt. N. 4450 E 5030 10:25 AM.

a Sample 6 places along E. 5070 edge
water.

b Quarry same force

c Barrow Pit same force

d Dust comb.

Quarry
Shovel "1" - 113 leads

Sept. 1

Photo "6" Spillway W. from E. end
from coord. N. 4410 E. 5500 9:30 AM.

Quarry shovel "2", bal. of force same
as gest.

Hydro. fill 2 cat. + McMillans, bal. of
force same

Well	D	El.	Gr. D.	El.	Casing
Upstritee	2.1	572.9			
1	42.0	621.4		663.4	663.4
2	18.0	661.4	6.0	673.4	679.4
3	15.5	663.5	13.0	666.0	679.0
4	17.8	660.8	11.2	666.8	678.6
5	22.3	658.3	10.7	669.9	680.6
6	plugged				682.2
7					686.2
Downstritee	35.5	592.0			

Quarry
Shovel "2" - 99 leads

Sept. 2

Photo #1 Dam from site #1, 10 AM

Quarry shovel #2 bel. terrace same

Updr emb. store, 12 lbs, 2 cats

On site, 1 cat

Photo #3 Spillway E. from Spillway station

2 PM. Ground elev. 755±

Photos #5 & 6 Spillway from coord. N 1210 E, 5020

Wall	D.	El.	Co. D.	El.	Casting
1	1.5	573.5			
	41.5	621.9		663.4	663.4
2	17.6	661.8	5.5	673.9	679.4
3	15.0	664.0	11.0	668.0	679.0
4	17.5	661.1	10.1	668.5	678.6
5	22.0	658.6	8.2	672.4	680.6
6	Plugged				682.2
7	"				686.2
Dist. toe	32.5	545.0			
		Pool. 668.0			

Quarry

Shovel #2 - 115 loads

Sept. 3

1 dragline } stripping north abut.

2 trucks }

1 runner } repairs to shovel #12, borrow pit

1 helper }

1 welder - repairs to shovel #1, quarry shop - 6 mechanics & helpers.

Sept. 4

No work - Labor day.

Sept. 5

Quarry same as before
Hydr. fill same crew
Roads " "

Well	D. or Upstr. toe	El.	Gr. D.	El.	Casing
1	0.5 38.5	574.5 624.9			663.4
2	19.0	660.4	2.6	676.8	679.4
3	16.5	662.5	9.5	669.5	679.0
4	19.7	658.9	8.8	669.8	678.6
5	23.6 plugged	657.0	6.5	674.1	680.6
6	7.1 plugged		7.2	675.0	682.2
7	14.0		11.2	675.0	686.2
Dist. toe	32.8	544.7			
		Pool elev. 669.0			

Quarry
shovel #1 - 109 loads

Sept. 6

Quarry shovel #1 - bal. of force
same.
Hydr. fill shovel #12 down part
of day - bal. of force same.
Roads - reg. force.
Borrow pits same force.
shop reg. force.

Shovel #1 - 102 loads

Sept. 7

Well	D.	El.	Gr. D.	El.	Casing
Upstr. toe	0				
1	38.0	625.4			663.4 663.4
2	16.6	662.8	4.4	675.0	679.4
3	13.9	665.1	7.2	671.8	679.0
4	17.2	661.4	6.3	672.3	678.6
5	21.6	659.0	5.6	675.0	680.6
6					682.2
7					686.2
Dist. toe	32.0	544.5			
		Pool elev. 670.5			

Quarry
shovel #1 - 102 loads
Same forces as yest.

Sept. 8

Quarry no hauling, 1 shore crew,
1 cat. operator 1/2 day, 1 truck, reg.
shop force.

Upstr. emb. 8 men, 1 cat.

Sand & gravel plant 1 fare, shore " "
& lab., & trucks.

photo 1 & 2 rock after shooting, N. about

N.E. from W. beach 4 P.M.

I.S. exposure, 16 stop

Gravel Plant 9/9/37

	D.	N.
Sand	283	220
3/4	58	38
1 1/2	70	58
2 1/2	70	70

Gravel Plant 9/9/37

	D.	N.
Sand	120	
3/4	23	55
1 1/2	29	70
2 1/2	29	80

Sept. 9

Quarry same as yesterday

Gravel Plant

Sample 1 Boards N. 2360 E. 10,370.

" 2 " 2320 10,460

" 3 " 2270 10,510

" 4 " N 2550 10,990

" 5 " N 2550 10,390

" 6 Olive grove 1/2 mi W. Head. Place

" 7 Sand " " "

" 8 700's " " "

" 9 700's " " "

" 10 900's " " "

" 11 Above quarry road N. of pit C

" 12 " " " "

*

Well	D.	El.	Gr. D.	El.	Casing
Upstake	0	575.0			
1	38.0	625.4	0	663.4	663.4
2	17.3	662.1	4.1	675.0	679.9
3	14.9	664.1	7.2	671.8	679.0
4	17.7	660.9	6.3	672.3	678.6
5	22.0	658.6	5.6	675.0	680.6
6				Pool 671.0	682.2
7					686.2
Dustrake	33.0	599.5			

Sept. 11

Photo "3" sloping at sta. 3450 ^{9/9/33} S. 1/2 9150

Photo "4" construction trench at 0.6 sec. at spillway 1/4-S. E. from west side. 9150 AM

Photo "5" Dam from site "1", 1:00 10 AM.

Photo "6" Sp. wy. NE from core No. 4260, E. 4900

1 sec. exp. 48 stop

Riddle core sample ord. E. 4900, 10 samples

depth water 5'; depth sample 6 ft.

Well	D.	El.	D. to	El.	Casing
Upstr toe	0	575.0	Pool	671.5	
1	38.0	625.4		663.4	663.4
2	18.6	660.8		675.0	679.4
3	15.6	663.4		671.8	679.0
4	19.0	659.6		672.3	678.6
5	23.0	657.6		675.0	680.6
6	plugged				682.2
7					686.2
Dist. toe	325	545.0			

Gravel Plant

sand	-	220	
3/4	-	45	55
1/2	-	45	55
2 1/2	-	55	70

Sept 12

Injuries Adolph Boah 9/6. 3 vertebrae fractured in neck.

Quarry same crew as yesterday.

Photo "1" crew sloping at about sta. 3475. Looking easterly from about sta. 4450. 2:55 P.M. S. 24.

Gravel Plant

sand	-	320	
3/4	-	85	55
1 1/2	-	102	45
2 1/2	-	100	60

Sept. 13

Quarry same force as yest.
 Gravel Plant " " " and
 1 cat. + McMillan.
 Roads cat, blade + water truck
 Upstr. emb. 1 cat. 60 + McMillan, 1 cat. 60
 bulldozer.

Well	D.	El.	Gr. El.	Bot. El.	Casing
Upstr. toe	0	575			
	38.5	624.9	663.4		663.4
2	19.5	659.9	675.0	23.5	679.4
3	16.2	662.8	671.8		679.0
4	19.3	659.3	672.3		678.6
5	23.5	657.1	675.0	60.0	680.6
6					682.2
7	Pool	671.0			686.2
Posthole	35.1	542.1			

Gravel Plant

	D.	N.
sand	200	210
3/4"	40	- 44
1 1/2"	50	- 66
2 1/2"	61	70

13

Sept. 14

Quarry 3 drillers added to
 force in AM.
 Gravel plant down for repairs
 on day shift worked part of
 night shift
 Roads reg. force.
 Upstr. emb. 1 cat. 60 + McMillan,
 1 cat. 60 bulldozer.

Gravel Plant

	D.	N.
3/4"	0	30
1 1/2"	0	40
2 1/2"	0	45
sand	0	150

Sept. 15

Quarry 2 shovels, 19 2, 11 rock trucks, 1 cat. bulldozer, 1 truck misc, 4 drillers, 1 powder man 1 ripper.

Gravel plant repairs on day shift, reg. force.

Roadshop reg. force.

Photo 2 com. rock lift, elev. 687. N. about 1" - 64. 2:15 PM.

Photo 3 shoring 675 level, cleaning well - 6 left foreground 2:20 PM.

Photo 4 Shovel sp. 3400, K. 4450 - 1" - 64 - 2:45 PM.

Well Upstr. too	D.	El.	Gr. D.	El.	Casing
1	38.6	624.8	663.4		663.4
2	19.5	659.9	675.0		679.1
3	16.4	662.6	671.8		679.0
4	19.5	659.1	672.3		678.6
5	23.6	657.0	675.0		680.6

Distributor 34.5 543.0

Pool 671.5

Quarry	D	N	Gravel Plant
shovel 1	99	116	No hauling-repairs.
" 2	98	111	
	197	227	

14

Sept. 16

Photo 5 Crack at about sta. ~~4450~~ ⁵ 3:45 PM.

Photo 6 crack from coord N. ^{3:50 PM.}
E. 4950

Photo 1 E. from about axis produced 4 PM.

Well	El. Top cas.	El. Bot. cas.	L. pipe	El. Silt.
111. 1	663.4	552.3	111.1	595.9 rock in pipe
2	679.4	553.5	125.9	655.9
133. 3	679.0	545.9	133.1	
138. 4	678.6	538.6	140.0	
128. 5	680.6	552.0	128.6	620.6
122. 6	682.2	559.3	122.9	671.0
7	686.2	566.8	119.4	675.0

Quarry	D.	N.	Gravel Plant
shovel 1	92	108	Sand 75 230
" 2	132	107	3/4 - 20 - 48
	224	215	1/2 - 25 - 65
			2 1/2 - 15 - 77

Sept. 17

Photo #2 Brace to support S. bank
at spillway crest elevation

9:45 A.M. $\frac{1}{2}$ " cut stop

Photo #3 Spillway crest excav.
& bracing: 9:46 A.M. $\frac{3}{4}$ " cut stop

Note condition of bracing and
earing bank. Photos by Wood.

15

Sept. 18

Quarry same drill force, shovels 1
2 & 9. 17 rock trucks

Embs. 2 cat. bulldozers, 2 dumpmen

Gravel Plant req. force

Photo #4 Toe of spoil bank^{N.} west of dam.

Note rock at toe of bank 2:45 P.M.

Photo #5 commencing new rock lift
upon 675 level up str. emb. 2:55 P.M.

Photo #6 well drillers & shoring up str. 3 P.M.

	Well	D	El.	Gr. D.	El.	Casing
Upstr. toe	0.1		574.9			
1	38.8		624.6	663.4		663.4
2	20.0		659.4	675.0		679.4
3	16.5		662.5	671.8		679.0
4	19.5		659.1	672.3		678.6
5	24.3		656.3	675.0		680.6
6	22.0		660.2	674.0		682.2
7		Pool	671.6			686.2
Dn str. toe	35.5		542.0			

Quarry	D.	N.	Gravel Plant	D.	N.
Shovel 1	96	84	Sand	280	246
2	104	91	$\frac{3}{4}$ "	90	75
9	92	86	$\frac{1}{2}$ "	14.0	135
	292	261	$\frac{2}{4}$ "	95	60

Sept. 19

Photo #1 Dam W. from site 1. 9:30 AM. $\frac{1}{2}$ " of
 Photo #2 Pouring out all trench of
 spillway with new agitating concrete trucks
 1:30 P.M. $\frac{1}{2}$ " - 64.

Quarry 3 shovels 18 rock trucks,
 same force on other work.

Roads same force

Gravel Plant same force & equip.

Quarry		Gravel Plant	
Shovel	N.	Sand	
1 - 87	128	280	} 335
2 - 79	107	$\frac{3}{4}$ " - 73	
9 - 85	78	$1\frac{1}{2}$ " - 125	
<u>231</u>	<u>313</u>	$2\frac{1}{2}$ " - 80	

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Sept. 20

Photo #3 Clearing looking up str. at
 about ^{center of} $\frac{1}{2}$ " sec. 33 1 sec. 128 stop 9:30 AM.

Photo #4 Spoil at E. end of spillway
 2:45 P.M. $\frac{3}{4}$ " sec. 64 stop.

Well	D.	El.	So. D.	El.	Casing
1	0.2	574.8		663.4	663.4
	39.0	624.4			
2	40.2	659.2		675.0	699.4
3	16.7	662.3			679.0
4	19.5	659.1			678.6
5	23.8	656.8	3.2	677.4	680.6
6	22.5	659.7		674.0	682.2
7					696.2
Dist. to		34.0	543.5		
Pool			672.		

Quarry		Gravel Plant	
Shovel	N.	Sand	
1 - 119	124	310	} 55
2 - 117	132	$\frac{3}{4}$ " - 35	
9 - 53	35	$1\frac{1}{2}$ " - 75	
<u>289</u>	<u>291</u>	$2\frac{1}{2}$ " - 55	

Sept. 21

Quarry 3 shovels, 17 rock trucks
remainder of force same as yesterday
Embs, 2 cats, 2 dumpmen op
& distr.

Gravel Plant idle.

Photo #5 Dam upst. from distr.
spoil bank. 2:15 PM. 1/2" G.I.

Photo #6 Constructing O. B. sec.
of spillway. 2:30 PM. 1/2" G.I.

Quarry
Shovel 114 - 98
" 2 - 115 - 131
" 9 - 104 - 95
333 324

Gravel Plant
idle.

17

Sept. 22

Photo #1 Distr. emb. N. from about mid
pt. flags show permissible shoulder
note encroachment

No injuries (Dr. Welch)

Quarry 3 shovels, 17 rock, reg
drill & shop force.

Distr. emb.

Well	D.	W.	Gr. D.	El.	Casting
Upst. 100	0.6 38.5	574.7 624.9	-	663.4	663.4
2	26.0	673.4	12.0	687.4	692.4
3	16.4	662.6	6.3	672.7	679.0
4	19.2	659.4	5.6	673.0	678.6
5	34.5	655.7		680.0	690.2
6	32.0	659.9		685.0	691.9
7					696.2
Post 100	33.5	544.0			

Quarry
Shovel 86 - 99
" 2 - 110 - 105
" 9 - 112 - 117
308 321

Gravel Plant
idle.

Sept. 23

Quarry same force as yest.
excepting 18 rocks.

Borrow pit 1 shore / operating,
1 idle.

Embs. 2 eat. co bulldozers, 2 dump
men.

Gravel Plant idle

Roads same as previously reported

18

Sept. 24

Photo #2 Clay deposited during
night of 9/23/33 upon inside
slope of distr. rock emb's.

11 a.m. 1/2 sec. stop c4. (by Wood)

Photo #3 N. abut. from distr.
edge of pool 11:05 a.m. 1/4" stop c4.

Photo #4 same as #3-1/2" stop c4.
by Wood.

Quarry	N.
Shore #1 - 91	102
2 - 35	0
9 - 130	105
<hr/>	<hr/>
256	207

Sept. 25

Quarry same force as Sat.
 Emb's 2 cat. 60 bulldozers,
 1 cat. 60 & McMillan, 2 dumpmen.
 Roads same road area.
 Borrow pit shore #12.

Well	D.	El.	Gr. D.	El.	Casing
1	37.5	573.8 623.9	0	663.4	663.4
2	26.2	673.2	10.0	689.4	699.4
3	16.0	663.0	5.9	673.1	679.0
4	17.5	659.1	6.2	672.4	678.6
5	35.0	655.2	5.0	685.2	690.2
6	plugged				691.9
7	"				696.2
Wash. pit	29.2	548.3			

Quarry	D.	N.
shore #1	118	117
2	121	134
9	68	0
	307	251

Sept. 26

Quarry same force as yesterday
 excepting 1 less driller.
 Emb's same as previously re-
 ported.
 Roads Galien road grader &
 water truck.
 Wells no work
 Gravel plant idle.
 Photo 5 Pouring concrete in
 outlet tower 7:30 PM. 1/2" - 64 (9/25)

Quarry	D.	N.
shore #1	86	94
2	83	88
9	110	75
	279	257

Sept. 27

Quarry same force as yesterday.

Roads 1 Galion road grader & water truck.

Borrow pits A & B shovel #11 in N. end of pit B. #12 in S. end of pit A.

Shop same force.

Wall	D.	El.	Gr. D.	El.	Casing
Upst. toe	1.8	573.2			
	38.7	624.7		663.4	663.4
2	26.1	673.0	15.0	684.4	699.4
3	13.5	665.5	3.8	675.2	679.0
4	17.7	660.9	3.7	674.9	678.6
5	38.8	651.1	3.6	686.6	690.2
6					
7					

Dist. toe 32.4 545.1

Quarry
shovel 1 - 86
2 - 83
9 - 110

Sept 28

Quarry shovel #2, 4 drillers, 7 rock trucks, 1 truck misc. 1 electroc.

Reg. shop force.

Dist. emb. 1 force, slabs.

Roads road grader & water truck.

Quarry

Shovel #2 - 122 loads.

Sept. 29

Quarry same shovels and force working as yesterday.

Roads same as previously reported.

Photo "6" Spillway cut. Took in a northerly from about dam axis produced. $\frac{1}{2}$ " G. dull. 2:30 P.M.

Well	D	El.	Gr. D.	El.	Casing
Upstr. toe	2.0	573.0			
1	38.8	624.6			663.4
2	26.0	673.4		685.0	699.4
3	13.0	666.0	3.6	675.4	679.0
4	17.5	661.1		675.5	678.6
5	32.2	658.0	3.5	686.0	690.2
Downstr. toe	30.0	647.5			

Quarry
shovel "2" - 102

21

Sept. 30

Quarry same forces as yest. Inst. emb. 1 eat. Co bulldozer, 10 laborers.

Roads same as yest.

Borrow pits shovels, 9, 11 & 12 in same location as yest.

Photo "1" E. from 3+90 note material in cut at cut. 2:35 P.M. $\frac{3}{4}$ sec. "69" (spill '05.)

Photo "2" cut. S. side sp. wy. about sta. 5+50 2:45 P.M. $\frac{1}{2}$ " stop 69.

Photo "3" S. from top N. sp. wy. slope at about sta. ^{C. 465} 2+30 El. shov. bench $\frac{1}{2}$ " 69, 2:55 P.M.

Quarry
shovel "2" - 127 loads.

Oct. 2

Injuries J. B. Tynor 2/28 pro
mature explosion right forearm
broken broken collar bone cuts
about arm, shoulder & head, abrasions
of eyes.

Well	D.	El.	Gr. D.	El.	Casing
upstr. too	1.6	573.4			
	37.0	626.4		663A	663A
2	plugged				699A
3	21.6	667.7	10.7	678.6	688.3
4	25.0	663.6	9.9	678.7	688.6
5	31.9	658.3	3.9	686.3	690.2
D'inst. toe	32.6	544.9			
Pool	677.0				

Quarry
shovel #2 - 108

22

Oct. 3

All forces identical as yest.
erday.

Quarry
shovel #2 - 95 loads

Oct. 4

Forces same as yest.
Tire patching }
" boot } basin
1 gal. dis. water }
Tire
" tools, crank & jack ordered r/c

Quarry shovel #1 - 94 loads

Oct. 5

Quarry shovel #1, 7 rock trucks,
 1 truck mixer, 4 drillers, 1 powderman,
 1 helper, 1 nipper, bal. of force same.
 Upstr. emb. 12 labs, 2 cats.
 Roads same force.
 Camp 3 laborers ditching
 Photo #3 double exposure
 Photo #4 Spillway N.W. from E5230 N4270
 3:40 P.M. 1/2" ca.

Well	P.	El.	Gr. D.	El.	Casing
Upstr. toe	1.2	573.8			
1	36.2	627.2	Pool	679.5	663.9
2	plugged				699.1
3	20.0	669.3	7.3	682.0	689.3
4	22.5	666.1	6.5	682.1	688.6
5	30.6	659.6	5.0	685.2	690.2
Distr. toe	30.5	547.0			

Oct. 6

Quarry & other forces same
 as reported previously.

Quarry
 shovel #1-10.

Oct 7.

- Sample " 1 W. Fill material
 " 2 W. beach "
 " 3 E. Fill material
 " 4 E beach "

Well	D.	El.	Gr. D.	El.	Casing
Upstr. toe	0.8	571.2	Pool	682.5	
1	36.4	627.0	0	663.4	663.4
2	plugged				699.4
3	19.6	669.7	7.0	682.3	689.3
4	21.3	667.3	6.4	682.2	688.6
5	30.5	659.7	4.2	686.0	690.2
Dist. toe	31.1	546.1			

Quarry
 Shore #1-111 98

29

Oct 8

Sunday - No work

Oct. 9

Construction forces about same as yesterday.

Well	D.	El.	Gr. D.	El.	Casing
Upstr. toe	0.0	575.0	Pool	683.0	
1	37.0	626.4			663.4
2	plugged				699.4
3	19.6	669.8	6.1	683.2	689.3
4	21.0	667.6	5.0	683.6	688.6
5	30.0	660.2	4.0	686.2	690.2
Dist. toe	30.6	546.9			

Quarry
 Shore #1-112

Oct. 10

Quarry shovels 1, 2 & 9, 17 rock trucks 7 men in powder crew 1 electric.

Photo "5" stock pile of boulders in spillway alongside of road to W. emb. Shovel on 735 level 2 P.M. 1/4" eastop 6+50

Photo "6" W. in sp. tram about sta. 4125

Lower shovel cler. about 725 upper 735.

Time 2:10 P.M. 1/4" - 80

Embs 2 eat. cars McMillans, 1 eat. case, 2 eat. cab bulldozers.

Gravel Plant shovel "12" 4 trucks

Quarry D.	N.
Shovel 1 - 88 -	84
" 2 - 96	80
" 9 - 94	101
278	266

Oct. 11

	N. 3420 E 4890	Depth 7'
442	20' S. Well "6" - 50' E	
443	Lincol wells 1, 2, 3, 4, 5	N. 3620 E 4890 SAME as 442
444	120' N Well "7" - 50' E	N. 3860 E 4890 D. 7'
445	Olive orchard at depth 6'	
446	N. E. end burrow pit A near surface	
447	" " " " " " "	mid. 7' below "
448	" " " " " " "	bot. 15' "
449	" " " " " " "	
450	N. central part " " "	Top
451	" " " " " " "	Mid 9' "
452	" " " " " " "	bot. 18' "

Quarry 3 shovels, 1 drillers, 2 powder m. 1 nipper, eat. 60, 16 trucks.

Embs 1 eat. cab bulldozer, 1 dumpman upstr, 1 eat. m., 1 Allis Chalmers tractor, 1 eat. 60 ball dozer + scarifier.

Photo "7" Dam from site 1, 11:15 A.M. 1/4" stop 80 Well

Quarry D.	N.
Shovel 1 - 88 -	114
" 2 - 103	111
" 9 - 80	60
271	285

Oct. 12

Photo 2 a gce section of sp. NE from about sta. 5+50 3:20 PM, stuck shutter.

Photo 3 shovel excav. unshot material in spillway, elev bench 725 + ^{E. 1/4} sta. 5+75 stuck sh.

Quarry 3 shovels 1, 2, 9, 18 rock trucks, 1 cat. 60 ball bal. force same.

Rock embs cat. 60, dumpman upstr, 2 cat. 60 bulldozer, dumpman, 10/abs upstr.

Quarry

Shovel 1 - 86 - 82
 2 - 116 - 107
 9 - 111 - 124
 313 313

26

Oct. 13

Quarry 3 shovels, 19 trucks, same force as yest. for bal.

Roads Galien road grader and water truck.

Photo 4 spillway E from 13+50, 3:15 PM, 14" 80.

Embs 10/abs up & dostr. 1 cat. 60 bulldozer.

Wall	D.	Gr. D.	D.	Gr. D.	Carriage Elev
Upstr toe	0.0	575.0			
1	37.5	625.9		663.4	663.4
2	plugged				699.4
3	22.6	666.7	6.2	683.1	689.3
4	27.5	661.1	5.0	683.6	686.6
5	43.0	657.8			<u>799.3</u>
Downstr toe	31.0	546.5			

Quarry

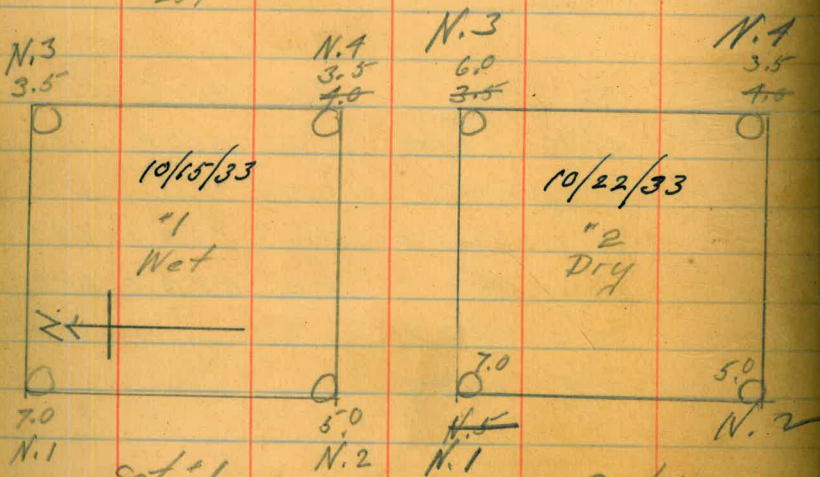
Shovel 1 - 97 - 85
 2 - 79 - 85
 9 - 102 - 76
 278 246

Oct. 14

Photo "5" Concr. edge sec. at sta. 4100
2:30 P.M. Instantaneous med. "8 stop

Photo "6" Spillway drilling S. side from
N. side at about sta. 6100 1/4" stop 64, 2:45 P.M.
upstr. emp. 8 lab's handplacing. 2 cot. 60
bull dozers.

shore 1-88-76
2-93-78
7-70-64
251 238



Oct. 15

Photo "1" Hydraulic press pulling
test anchors. 12:30 P.M. 1/2" stop 64.
(by Wood).

Set #1			Set #2			
N.	Depth	Max. Gauge Pull/lbs	N.	Depth	Max. Gauge Pull/lbs	
1	7.0	1800	1	7'	2850	68,400 not pulled
2	5.0	800	2	5'	2200	52,800 "
3	3.5	2000	3	6'	1700	40,800 failed
4	3.5	1200	4	3.5'	1350	32,100 "
5	7.0	1400				not pulled

Oct. 16

Quarry same force as reported previously
Upstr. emb 9 laborers, 2 cat. wheel dozers
1 dumpman.

Well	D.	El.	Gr. D	El.	Casing
1	0.4 37.2	574.6 626.2			663.4
2	plugged				
3	24.4	664.9	6.0	683.3	689.3
4	29.0	659.0	12.0	686.0	698.0
5	covered				
Onstr. toe	30.5	547.0			

Quarry

Shovel - 1 - 83 - 71
2 - 99 - 82
9 - 75 - 100
257 253

28

Oct. 17.

Quarry shovels 1, 2, 9, 18 tracks
1 cat. 5 jk hms, 7 men.
Upstr. emb. 2 cats, 1 fore, 1 dumpman
9 laborers.
Roads same force.

See Bill about burning beehive in
basin.
See Punch about sledge.
Order gas
Reports headed by Bevers name.

Quarry

Shovel - 1 - 85 - 84
2 - 87 - 96
9 - 102 - 103
274 283

Oct. 18.

Photo 2 Rock lift at 700 Dnstr. dragline thrown up earth blanket at right. 9:15 AM. 1/4" stop 80

Photo 3 Upstr. rock emb. 700 lift. N. from S. about 10:30 AM. 1/4" stop 80

Photo 4 Dragline throwing up earth blanket from beach material / S. from N. about 10:45 PM 1/4" stop 80

Well	D.	El.	Gr. D.	El.	Casing
1	0.8	574.2			663.4
2	37.3	626.1			699.4
3	26.2	669.1	6.0	683.3	689.3
4	40.5	657.5	10.8	687.2	698.0
5	covered				

Dnstr. toe 30.1 547.4

Photo 5 Spillway excav. S. side from 4775
11:10 AM. 1/4" stop 80.

Samples

Pit	Depth	Sample	El.
1	3'	1	517
3	"	"	518
4	"	"	519
4	"	"	520
4	"	"	521
3	7 1/2'		522
2	"	"	523
2	"	"	524
2	"	"	525

Beach
shore
1 - 84 - 102
2 - 105 - 130
9 74
260 232

Oct. 19

Quarry same for e.e

Upstr. emb. / Core. 10 labs. 1 cat to ball. 1 dumpman

Dnstr. emb. 1 cat. 60 bulldozer, 1 dumpman

Sample	Depth hole	Depth sample	Loc.
529	1	4	3' Pit S. of B.
530	2	4 1/2'	3
531	1	10'	1' W. of chocolate crk.
532	2	10'	5'
533	3	10'	10'
534	1	8'	1'
535	2	8'	4'
536	3	8'	8'
537	1	10'	1'
538	2	10'	5'
539	3	10'	10'

Quarry

#1-75
#2-76
153

Oct. 20

Quarry shore #1, 7 rock trucks, 1 truck mixer
 1 pound man (Larsen) & helper, 5 drillers,
 1 nipper.
 Upstr. emb. 1 cat. bull, 1 core, 10 lab's.
 Downstr. emb. 1 cat. 60 bulldozer
 Roads 1 cat. 30, 1 road blade, 1 truck (water)

1 6" slim taper tile
 1/2 doz. single bit ax handles

Sawing - time on 10/2 ?

Bauer rec. \$55.11
 12 days 57.00 ?

Well	D.	El.	Gr. D.	El.	Casting
Upstr. toe	11.0	574.0			
	38.0	625.4			663.4
2	28.4				
3	28.4	660.9	6.0	683.3	689.3
4	42.4	655.6	10.6	687.4	698.0
Downstr. toe	29.7	547.8			

Quarry shore #1 - 86 loads

Oct. 21

Starr & Ellis expert loggers last period. Curtis this period. Mr. Loey would like to have kept.
 Quarry force same as yesterday except one less driller.
 Upstr. emb. same force as yesterday.

~~Curtis~~
 All forces same as previously reported.
 Photo's spoiled - base back

Quarry shore #1 - 86

Oct. 22

Well Anchors - Hole #1 - broke 3/8" cable at 2000' pull. Doubled cable and broke shackle at 2850' pull.

Hole #3. Weld at anchor pulled out at 1200'. Rewelded, pulled out at 1400'. Rewelded broke out at 1450'. Rewelded pulled at 1700'.

Hole #4. Yielded at 1350 lbs

Hole #2. Broke double 5/8" cable at 2200 lbs and abandoned.

Oct. 23

Injuries E. E. Muse struck on head by drill steel, crack in skull 10/19/33. Still in hospital. Forces same as set

Well	D.	El.	Gr. D.	El.	Casing
Upst. box	1.8	573.2			
1	39.0	624.4		613.4	663.4
2					
3	30.0	659.8		683.3	689.3
4	43.0	655.0		687.4	698.0
post box	29.9	647.6			
			Pool	650.4	P.M.

Quarry

Shovel 1-77

Oct. 24

Photo #1 Shore #7 excavating in north side spillway cut, about sta. 2+00. 10:30 AM. 1/2-64

Photo #2 Same shore #7 loc. as #1. from opposite side of spillway 10:45 AM. 1/2-64.

Samples from holes, Chocolate old Plum line

- Pit 1 top 544
- " 5' 545
- " 10' 546
- Pit 2 top 547
- " 5' 548
- " 10' 549

Quarry shore #1, 6 rock trucks, bal. of force same as yesterday.

Embs. 1 core, 10 labs, 2 cuts upstr. 1 cat dustr.

Quarry Shore #1-81

Oct. 25

Photo #3 Hole in beach north from north end of dustr emb. 9 AM. 1/2-64.

Photo #4 same as above further away

Photo #5 monitor filling holes north from near middle of fill. 9:40 AM.

Photo #6 same as above south from N. about 9:45 AM.

envelopes
1/2 doz brush hooks - basin

Photo #1 expl. tunnel spillway 2:30 PM 1/2-64

Photo #2 upstr. beach S. from N. abut. 2:40 PM.

1/2-64 weather hazy.
Ask Gene about reports

Gravel Plant

Quarry	
sand	250
3/4	80
1 1/2	106
2 1/2	80
} 140	

Quarry shore #1-98

Oct 26

All forces same as yest.
Photo #3 test anchors excav.
3:30 PM 3/4" - 69

Well No.	D. in	El.	Gr. D.	El.	Casing A
1	40.1	572.5			6634
2		623.0			
3	30.8	658.5			6893
4	49.8	653.2			6980
Instatoc	30.0	547.5			
		Pool 681.2			PM.

Gravel Plant

Sand	250
3/4	70
1 1/2	95
2 1/2	80

Quarry
shore 1-115

Oct. 27

Belts
Amaniac }
Spikes 10-60 } basin
Hand level }
Upstr. emb. 1 core, 9 labs, 2 drillers
2 cat bulldo.
Dist. emb. 1 cat. 60 bulldozer
Quarry same force as yest.

N. 4150	6983	} S. anchor pit El. 639
E. 4640		
N. 4195		} N. pit 6995
E. 4640		

Gravel Plant

Sand	250
3/4	70
1 1/2	75
2 1/2	80

Quarry
shore 1-105

Oct. 28.

Get physicians name that attended Cook-basin.

Gravel Plant 300 trucks, 300000 lbs. of force same.

Photo #4 spillway excav. S side of about sta. 6475 11:30 AM 1/2 - 64 stop

Well	P.	End of El.	Gr. D.	El.	Casing
upstr. toe	2.8	572.2			6634
1	40.9	622.5			6634
2	31.0				
3	31.0	658.3			6893
4	45.1	652.9			698.0
Dnstr. toe	30.0	517.5			
		Pool 680.0			

Gravel Plant
 Sand 300
 3/4 75
 1/2 85
 1/4 45

Quarry
 shore #1 - 116

Oct. 30

Quarry shore #1, 6 rock trucks, 6 drillers bal. of force same, Upstr. emb. 1 here, 11 labs, 2 cat. bull dozers

Wells 1 driller, 1 helper worked 1/2 day.

(End of 10 day period)

Well	P.	El.	Gr. D.	El.	Casing
upstr. toe	3.1	571.9			
1	41.7	621.7			663.4
2					
3	31.4	657.9			683.3
4	45.5	652.5			687.4
Dnstr. toe	30.2	647.3			698.0
5	75.0	625.2			701.0
		Pool 680.2			700.8

Photo #5 Excavating for spillway floor. Looking westerly from about sta. 1/4" 5 stop 61.

Gravel Plant
 Sand - 315
 3/4 75
 1/2 105
 1/4 15

Quarry
 shore #1 - 110

Oct. 31

Quarry No work by shovels or tracks - rain. No drifting. Shop force worked 2 hrs. 7. Upstream 1 fore, 10 labs, 1 hr.

Nov. 1

Quarry 1 less driller, bal. of force same as previous. Upstream 1 fore, 10 labs, 2 cats. 1 cat. up str.

Well	D.	El.	Gr.D.	El.	Casing
Upstr. 1	33 42.0	571.7 621.4		663.4	663.4
2					
3	31.5	657.8		683.3	689.3
4	45.8	659.2		687.4	698.0
5	16.3	624.5		701.0	700.8
6	30.6 100	677.8 680.2			

Photo 6 dist. emb. from spoil bank 3 PM 1/4" depth.

Gravel Plant
 Sand - 220
 3/4 - 790
 1 1/2 - 190
 260

Quarry
No hauling

Gravel Plant
 Sand 175
 3/4 60
 1 1/2 90

Quarry
Shovel - 1. 106 loads

Nov. 2

Quarry same force as previous reported.

Upstream same as yesterday except drillers on nodules.

Photo #1 Dam from site 1
2:15 P.M.

Gravel Plant

3/4 30

1/2 80

Quarry
Shovel #1 - 111 bank

Nov. 3

Photo #2 & 3 Dam from about 600' upstr. of tunnel portal 2:45 P.M.

1/4" stop 64.

Quarry same force as yest.

Upstream, 1 force, 11 laborers
2 cets. 1 eat dust.

Well	D	El.	Gr. D	El.	Casing
upstr 1	3.7	571.3			
	43.3	620.1		663.4	663.4
2					
3	52.1	657.2		683.3	689.5
4	46.6	651.4		687.4	698.0
5	77.1	623.7		701.0	700.8

Photo #4 to complete panorama of spillway exit, end 1/4" stop 64 3 P.M.

Photos #5 & 6 Dam from about 300 feet downstream of tunnel exit, 3:25 P.M. 1/4" stop 64.

Gravel plant

sand. 300

3/4" 65

1/2" 150

Quarry
Shovel #1 - 116

Nov. 4

All forces same as reported previously. J. Connelly stated that forces would be greatly reduced at conclusion of day's work.

Nov. 6

Quarry shorel #2, 6 rock trucks,
1 truck misc, 3 drillers, 1 electric
1 blacksmith & 1 helper.
Upstr. emb. 2 laborers, 2 cats, 2 drillers
1 portable compressor.
Roads: blader water truck.

Well	D.	El.	Gr. D.	El.	Casing
Upstr. 100	3.9 447	571.1 618.7		663.4	663.4
2					
3	32.7	656.6		683.3	689.3
1	18.4	649.6		687.4	698.0
5	78.1	622.7	0.0	701.0	700.8
Postholes	20.0	547.6			

Gravel Plant
Sand 255
3/4 - 70
1/2 - 145

Quarry
shorel #1 - 111

Gravel Plant
sand 255
3/4 - 50
1/2 - 125

Quarry
shorel #2 - 67

Nov. 7

Photo of placing concrete in floor slab
of spillway W. from E. end 11:AM. 1/4" stop.

Nov. 8

Quarry shovel #2, 5 rock trucks,
1 truck misc, 3 drillers, 1 electric,
same for bal. of force.
Dnstr. emb. 1 eat, 6 laborers.
Upstr. emb 1 eat 60 bell.
Roads 1 water truck
Gravel plant 5 Co. trucks, 2 labs,
shovel crew, 1 fore.

Well	D.	El. Gr. D.	Gr. D.	El.	Casing
Upstr. 1	1.0	571.0			
	45.1	618.0		663.1	663.1
2					
3	32.7	656.6		683.3	689.3
4	48.4	649.6		687.1	698.0
5	78.3	622.5		701.0	700.8
Dnstr. tee	90.0	547.5			

Gravel Plant

Sand - 230

3/4" - 50

1/2" - 95

Quarry

shovel #2 - 70

Gravel Plant

Sand - 155

3/4" - 35

1/2" - 100

Quarry

shovel #2 - 81

Nov. 9

Photo "2" Spillway operations looking N.E. from about sta 480 1:30 PM

1/2" stop 64

Quarry same as yesterday

Roads & water track

Gravel Plant same force & contract

Photo "3" Dam upstr. from dam str. spoil bank 3:30 PM 1/4" stop 64

Gravel Plant

Sand 156

3/4" - 30

1/2" - 95

Quarry

shovel "2" - 86 loads

39

Nov. 10

Photo "4" Concr. & drilling S.W. from about sta. 2+00 Med. Instr. stop 14 1:30 PM

Photo "5" Dam from site 1 2 P.M. 1/4" stop 64

Photo "6" Spillway looking S.E. from sta. 6+80 3:30 P.M. 1/2" stop 64

Well Upstr. toe	D.	El.	Gr. D.	El.	Casing
1	4.1	570.9			
	45.7	617.7		6634	6634
2					
3	32.7	656.6		6833	689.3
4	48.4	649.6		6874	698.0
5	78.5	622.3		701.0	700.8
Inst. toe	29.8	547.7			

Quarry shovel "2", 6 rock trucks, 1 truck misc., 3 drillers.

On stream. 6 loks, 2 cats.

Gravel plant same force.

Nov. 11

Holiday - no work

Nov. 12

Sunday - no work

Nov. 13 to Nov. 27 incl.
Holiday - annual vacation

Nov. 28

Rain - All work suspended but
gravel plant in A.M.

Gravel plant - 1 truck (Co.) drag-
line, 1 laborer, cat + McMillan.

Borrow pits - shovel + 9, cat. +
McMillan. work suspended at
9 A.M.

Quarry No operations

Well	D.	El.	Gr.D.	El.	Casing
Upstr. toe	5.1	569.9			663.4
1	151.5	611.9			663.4
2	-				
3	30.5	658.8			689.3
4	42.0	656.0			698.0
Dnstr. toe	30.3	547.2			

Nov. 29

Quarry 1 blacksmith, 1 helper,
1 shovel electrician, 1 setup, 1 port-
able compressor.

Gravel Plant 1 dragline + crew
digging sump.

Borrow Pit shovel "9", 1 cat. co +
Ma Millan

Roads 1 Galion road grader

Camp 1 water truck + driver.

Nov. 30

Holiday - no work

Dec. 1

Roads road grader + operator

Photo "1" Hog box for hyr. till material
N.E. from sta. 2:15 P.M. inst. S "16 stop

Photo "2" Same as "1" from sta 420, 1/4" stop at
2:25 P.M.

Well Posn. toe	D.	El.	Gr. D.	El.	Casing
1	3.1 52.0	669.9 611.4		663.4	663.4
2					
3	30.4	658.9		683.3	689.3
4	42.0	650.0		687.4	698.0
5					
Instn. toe	30.5	547.0			A.M.

31, 20, 8, 16, 24, 12, 14, 40, 7, 15 borrow pit
Instn. emb 1 bore, 5 tabs hand
picking.

Dec 2

Photo 3 Dam from site 1. 9:45 AM 1/4" stop 64

Borrow Pit A Trucks 14, 7, 12, 34, 20, 8, 44, 16

Photo 4 Hydr. ops N from about up str emb 10:30 AM. 1/4" stop 64

Photo 5 Beach (past) N. from S. about 10:40 AM. 12/1/33 1/4" stop 64

Photo 6 Dam looking up str. from downstream spoil bank 1/4" stop 64 3 PM.

Dec 4

Trucks 7, 14, 15, 16, 34, 12, 8, 42, 44, 20

shovel 8, 1 cat 60 + Mc, 1 dumpman

checkers - above on hydr. fill material.

Emb. distr. 1 cat 60 bulldozer, 1 portable compr., 1 driller, 1 flare, 6 labs.

photo 1 shovel in S. side spillway at about sta. 7+00. stop 64. 1/3" 3:15 PM.

photo 2 shovel near N. side of spillway at sta. 6+40 1/4" stop 64 3:20 PM.

Gravel Plant 3 labs, 5 trucks (Co.) dragline + crew.

Well	D.	El.	Gr. D.	El.	Casing
Upstate	5.1	569.9			575.0
1	52.0	611.4		663.4	663.4
3	27.8	661.5		684.0	684.3
4	41.5	656.5		687.4	698.0
Onstr. too	30.4	547.1			577.5

Dec. 5

Borrow pit shutdown at 9:30 A.M. due to cessation of hydraulic operations.

Dist. emb. 1 portable compressor, 2 jtkims, 2 drillers, 3 labs, 1 core.

Beads 1 Calian road grader.

Shap regular force, shovel & crew excavating for loading platform.

1 riggat foreman, 1 laborer.

Gravel Plant Plant idle, shovel crew on repairs.

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Dec. 6

Photo #3 Realty men from about cards N. 4210 E 5000 1/4 stop 64, 1:20 PM.

Basin pay sheets

Lacey

Wolke

Tenkins

Martin

Boren

Well	D.	El.	Gr.D.	El.	Casing
upstr. toe	5.1	569.9			
1	53.3	610.1		663.4	663.4
2					
3	25.5	663.8		684.5	689.3
4	40.0	658.0		687.9	698.0
5					
6					
Dist. toe	30.3	547.2			

Dist. emb. 1 port. compr., 2 jtkims.

1 core, 2 drillers, 4 laborers.

Gravel plant idle, shovel crew on repairs.

Dec. 7

Photo #4 Floor slab at fracture
north from S. side tunnel

Photo #5 Same as above looking
west from E side of fracture

Photo #6 Same as above E. from
west side of fracture. Above a view
taken with flashlight.

Upstr. emb. 2 drillers & out fit (etc)

Downstr. emb. 1 fore. 5 laborers

Gravel plant idle, dragline crew on
repairs.

Quarry regular shop force. Rigger
& 1 laborer with cat. crane pulling up
cable.

Dec. 8

No work at quarry

Dragline crew on repairs to #11

Shop force same

Dec. 9

Forcees same as yest.

Dec. 10

Photo 1 Crack along ^{W.} beach near puddle at about center of dam

3:00 P.M. Inst. S. stop 8

Photo 2 Sampling in puddle core

3:05 P.M. Inst. S. stop 8

Photo 3 Discharging sample from

sampling device 3:10 P.M. Inst. S. stop 4

Photo 4 same as "3"

Wall	D.	El. Gr. H.	Gr. D.	El.	Casing
Upstream	8.2	569.8			
1	53.9	610.0		663.4	663.4
2	-				
3	28.0	661.3		689.5	689.3
4	12.2	655.8		687.4	698.0
5	-				
Dist. to	30.2	547.3			

45

Dec. 11

No operations other than shop crews at quarry & plant.

Dec. 12

Photo 5 sampling crew at work near southerly end of dam 10 AM.

Inst. S. stop 8.

Photo 6 Dam looking W. from site 1 10:15 AM. Use Stop 64.

Dec. 13

Work started on some units but soon discontinued - rain.

Shop crew only force working entire day.

Well	D.	El.	Gr. D.	El.	Casing
up str. toe	1.3	569.7			575.0
1	5.25	609.9		663.4	663.9
2					
3	30.5	658.8		684.5	689.3
4	43.0	655.0		687.4	698.0
dn str toe	30.0	647.5			577.5

Dec 14

Shop same force
Misc. 3 labs taking up airline from main comp.
Cat. + McMillan Grading upper part pit C.

Dec. 15

Shop same force
Cat + Mc. as yest.
Road blade + operator
1 shovel crew on 9 of pit A.
Same quarry force
Borrow pit samples

Sample	N.	E.	Location + Descrip.
1216	3140	11450	1' below surface
1217	"	"	9' " "
1218	"	"	18' " "
1219	3300	11470	1' " "
1220	"	"	7' " "
1221	"	"	19' " "

Dec. 18

Photo #2 South abut. from upstream summit pool beach 10:30 AM Inst. S. step 10

Photo #3 North abut. from upstream summit pool beach 10:35 AM Inst. S. step 20,

Dec. 16

Photo #1 S.W. from Corrd. N. 4410-E 5700 10 AM Inst. S. step 12 (Spillway)

Some quarry force
Road blade operator

Well	D.	El.	Gr. D.	El.	Casing
Upstr. toe	5.7	569.3			575.0
1	44.0	609.1		663.1	663.1
2	37				
3	32.0	657.3		684.5	682.3
4	41.5	653.5		687.1	698.0
Dist. toe	30.2	547.2			577.6

Dec. 17

City forces sampling in puddle core. No other operations.

Dec. 26

Photo 14 dam from site 1

10:45 AM, 1/4 825 stop

Photo 15 N. abut. from upstr. bank
slow - 416, 10:55 AM.

Photo 16 dam from dist. spoil
bank 11 AM Inst. slow 16 stop

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Jan. 3

Turned in on Dec. report

Well	D.	El.	Gr D	El.	Casing
1	54.7	608.7		663.4	663.4
2					
3	33.0	656.3		684.5	682.3
4	42.5	650.5		687.1	696.0
upstr. toe	5.7	569.3			575.0
dist. toe	30.8	546.7			577.5

P.M.

Jan. 5

Photo 1-1 Ramp at East end of Spillway 1/25 - 20 - 1:40 P.M.

Photo 2-1 Cranes with clamshell buckets removing sand in puddle core at about North 3740 2 P.M. 1/25-16.

Photo 1-2 D. about from S. about 1/25-16 2:10 P.M.

Photo 2-2 Pam from N. of camp 2:30 P.M. 1/25-20

Jan. 8

Shop fore, 5 mechanics + helpers, 1 welder, 1 electrician

Photo 2-2 Tower 10:30 A.M. 1/25-16.

Well	D.	El.	Gr. D.	El.	Casing
1	57.7	605.7		663.4	663.4
3	33.1	656.2		684.5	689.3
4	47.7	650.3		687.4	698.0
Upstr. toe	5.7	569.3			575.0
Downstr. toe	30.6	546.9			577.5

Pool 683.

Jan. 9

Photo 1, 3 Draglines in puddle core 11 A.M. 1/25-16.

Jan. 11

Photo Draglines in core 11:30 A.M. 1/25-16

Photo " " 1:40 P.M. 1/25-20 (1 with own)

Jan. 12

Photo - Monitor sluicing excavated material back into puddle core 9:30 A.M. 1/25-16 (1 with own)

Photo - Log pile in basin 11 A.M. 1/25-14.

Well	D.	El.	Gr. P.	El.	Casing
1	58.5	604.9		663.4	663.4
2					
3	33.3	656.0		684.5	689.3
4	47.8	650.2		687.4	698.0
Upstr. toe	5.7	569.3			575.0
Downstr. toe	31.0	546.5			577.5

Pool 683.

P.M.

Jan. 13

Photo from site "1 1/2" 128
Photo "Westerly end of spillway cut
1/15/34, 3:30 P.M. 1/2" stop 80."

Jan. 15

1 Galion road grader on dam
roads.
Remainder of force same

Jan. 17

Elliot 1, 2, 3 & 5
Harper 4 & 5
Art 1, 2, 3 & 5
Road 3 each at all
Albert 1 to 5 incl.
Osborne 1 at "9
~~Photo Dam from quarry NW~~
~~at camp 2:15 P.M. 1/2" stop 128~~
Gravel Plant 1 lab. with truck in AM
4:10 PM.
1 shovel & 7 trucks hauling sand
& gravel (3 rest)

Jan. 18

Photo Removing sand from south
end of pool 7:15 AM. 1/25-16,
(one by own kodak also)

Well	D.	El.	Gr. D.	El. Casing
1	61.8	601.6		663.4 663.4
2				
3	32.8	656.5		684.5 689.3
4	35.2	652.8		687.4 688.0
Upstr. toe	5.8	569.2		575.0
Downstr. toe	30.0	547.5		577.5
			Pool	683.2

Jan 24

Well	D.	El.	Gr.D.	El.	Casing
1	63.0	600.9	0	663.4	663.4
3	32.3	657.0	4.8	689.5	689.3
4	34.2	653.8	1.2	687.4	688.0
Upstr. toe	5.8	569.2			575.0
Down str. "	30.2	547.3			577.5

Pool 681.1

Jan 25

Photo removing sand from pool
1/25-16 - 2:30 P.M.

Jan 30

Photo Dam from site "1" 1/2" step 120
2 P.M.

Photo spoiled.

Well	D.	El.	Gr.D.	El.	Casing
1	64.4	599.0		663	663.4
3	32.5	656.8		680.5	689.3
4	34.5	653.5		687.4	688.0
Upstr. toe	5.4	569.0			575.0
On str. "	27.0	550.5			577.5

Pool 680.

Jan. 31

Photo "2" Spillway, E from camp 2 P.M. 1/4 - 100 stop
 Photo "3" Shorel in south side of spillway at
 about sta. 7+00 1/3 stop 69, 2:45 P.M.
 Photo "4" Constructing lining forms on S. side
 of spillway 2:55 P.M. 1/2" stop 69

Feb. 2

Photo "5" Removing sand at about N. 35' 00'
 10 A.M. 1/25-16
 Photo "6" Constructing ramp at upstr.
 beach on north abutment 10:05 A.M. 1/3 - 64
 Same forces operating as previously
 reported.

Feb. 5

Well	D.	El.	Gr. D.	El.	Casing
1	64.5	598.9		663.4	663.4
3	29.0	660.3	8.1	681.2	689.3
4	32.5	656.1	3.7	684.9	688.6
Upstr. toe	4.1	570.9			575.0
Dnstr.	27.8	549.7			577.5
	P.M.		Pool	682.0	1

Feb. 6

Photo #1 Sluicing sand on east side face of upstr. rock emb. 8:30 AM. 1/25-16.
 Photo #2 Sluicing material in hog box at spillway. 5:45 AM. 1/25-16.
 Photo #3 Loading hydraulic till material in furtherly end of pit C 3 AM 1/25-16.
 Photo #4 Condition at sand & gravel stockpiles 2 PM. 1/25-16.
 Photo #5 Hog box 2:15 PM. 1/25-12.
 Hydr. till trucks 4, 2, 3 (cyd.) "20 (6yd.) "23 (8yd.)
 shovel #9, cat. 60.
 1 checker, 1 dumpman.

Feb. 7

Gravel shovel #8, 1 cat 60 + MeM.
 4-8yds & 1-6yd trucks
 Photo #6 Excav. in spillway at about sta. 7400 1:25 PM. Inst. slow "12 stop.

Feb. 8

Pit A Trucks, 23, 1, 2, 3, 20, 15
 shovel #9, cat. 7 Me.
 Pit C. 5 trucks Co.
 shovel #9, cat. 60 bull at pit
 " " " " dump

Feb. 9

Pit A shovel #9 5 8yd. trucks, 3 9yd. & 1 6yd. 1 cat. Me.
 Pit C shovel #8, 5 Co. trucks, 1 cat. Co bulldozer
 Hog box 1 checker, 1 dumpman, 1 cat. Co bulldozer.
 Photos 1 & 2 Panorama of dam & spillway from top of dnstr. spoil bank 2:45 PM. 1/25-16.
 Photo #3 hydr. W. side of core 3:15 PM. 1/25 stop 8

Feb. 10

Photo "9 Dam from site "1, 8:45 AM
1/25-16.

Well	D.	El.	Gr. D.	El.	Casing
1	65.0	598.4	0	663.4	663.4
3	24.3	665.0	4.8	684.5	689.3
4	30.0	658.6	3.5	685.1	688.6
Upst. toe	3.8	571.2	-	-	575.0
Dr. str. toe	27.6	549.9	-	-	577.5
	P.M.				Pool 683.6

Feb. 12

Roads shovel "9 + crew 4 trucks
Co., 1 cat. 60 + McMillan, 4 laborers
Hydr. Fill shovel "9 + crew 8-8 yd trucks
1-9 yd., 1-6 yd. - 1 cat. 5 yd.

Feb. 13

Hydr. Fill shovel "8, 1 cat. 60 + Mc.
Trucks, "6, 8, 20, 2, 15, 1, 5, 7,
2 laborers, 1 road grader

Feb 14

Sample #	depth	S. end
83	1'	"
84	6'	"
85	12'	"
86	1'	Mid. 125' N.
87	9'	"
88	18'	"
89	1'	N. end
90	8'	"
91	15'	"

Feb. 15

Trucks, 1-3-5-6-7-8-15-20-23
 shovel "9, dragline "10, cat + McM.
 AT HOGBOX 1 checker, 1 dump man,
 1 electric bulldozer.
 Roads 1 water truck, 1 road grader.

Well	D.	El.	Gr. D.	El.	Casing
1	65.0	598.4		663.4	663.4
3	22.5	666.8	3.8	685.5	689.3
4	27.5	661.1	3.5	685.1	688.6
Upstr. toe	4.2	570.8			579.0
Downstr. .	27.3	650.2			577.5
	A.M.	Pool		684.4	

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Feb 16

Hydr. Fill Pit K trucks 3, 6, 23, 1, 20, 8
 9, 4, 15, 5
 shovel "9, 1 cat 60 + McMillan
 1 shovel "8, 3 trucks loading P.G. for
 road to pit K.
 Photo "5 loading in pit K 1:45 PM. 1/25-16.

Feb. 17

shovel "9, 1 cat. 60 + McMillan
 trucks 6, 5, 3, 20, 15, 2, 8, 1, 7, 4
 Photo "6 Hogbox 10:15 AM. 1/25-16.

Feb. 19

Hydr. Fill - Trucks 7, 20, 15, 2, 6, 8, 23, 9, 5,
3, 1,
shovel "9, 1 cat. 60 bulldozer
Hogbox 1 checker, 1 dumpman,
1 Electric bulldozer.
Roads shop & quarry same forces as
previous.

Feb. 20

Well	D.	El.	Gr. D.	El.	Casing
1	69.0	599.9		663.4	663.4
3	18.6	670.7	2.4	686.9	689.3
4	22.2	666.8	2.4	686.2	688.6
Upstr. toe	4.0	576.0			575.0
Downstr. "	27.0	550.5			577.5
	PM.	685.9			

Feb. 21

Well	D.	El.	Gr. D.	El.	Casing
1	63.2	600.2		663.4	663.4
3	18.0	671.3	2.1	687.2	689.3
4	22.0	666.6	2.3	686.3	688.6
Upstr. toe	3.9	576.1			575.0
Downstr. "	31.1	546.1			577.5
	AM.	Pool 685.5			

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Feb. 28

Pit A 10 trucks, 1 cat 60 "8 shovel
Pit C. "7 shovel, 5 trucks, 1 cat
Photo "1 shovel in sand pit A 9 AM. S-16

Well	D.	El.	Gr. D.	El.	Casing
1	62.0	601.4		663.4	663.4
3	17.0	672.3	1.4	687.9	689.3
4	21.4	667.2	1.5	687.1	688.6
Upstr. toe	3.7	571.3			575.0
Downstr. "	27.1	550.4			577.5
	PM.	Pool 687.4			

March 1

Photo "2 station from site "1 9:15 AM. S-16
Hydr. Fill: shovel "8, cat + Me.
Trucks "3, 6, 4, 2, 8, 5, 7, 23, 15, 1
Photo "3 Tower 10 AM. S-16.
Photo "4 shovel loading in spillway
area S.E. cor. pit C. 11 AM S-16.

March 3

Photo #5 Removing sand from
hogbox in spillway. 10:30 AM. S-16

Photo #6 Concrete floor slab
at W. end of spillway 10:40 AM. S-16

AM. March 5 Pool 689.6

Well	D.	El.	Gr. D.	El.	Casing
1	50.0	613.4	0.		663.4
3	27.6	669.9	8.3	689.2	697.5
4	30.5	666.9	8.5	688.9	697.4
5	12.0	658.8	0.	701.	700.8
6	11.5	660.5	0.	702.	702.7
Yastr. toe	3.3	571.7			575.0
On "	28.0	549.5			577.5

Pit C. Trucks 34, 33,
shovel #9, cat. 60 + McM.

Pit A 5, 23, 3, 15, 6, 4, 7, 8, 2, 1 trucks
shovel #9, cat. 60 + McM.

March 6.

Pit C. 6 Co. trucks. (1 rear truck eye)
1 cat. 60 + Mc. shovel #7

Pit K. trucks 1, 7, 5, 8, 4, 3, 23, 6, 15, 2
shovel #9, cat. 60 + Mc.

March 7

Photo #1 Placing material in puddle
on W. beach 9 AM. S-16.

Photo #2 Looking northerly from
S. abut alongside upstr. beach - note
water to toe of emb. 1 sec. 128.

March 8

Pit K. trucks 6-15-7-3-8-1-9-23-5-2
shovel #9, cat 60 + McMillan

Pit C. trucks 33-45-20-34-40-39
shovel #7. Cat 60 + McMillan

Hogbox: cat. 60 bulldozer + operator
Elec. track bulldozer, 1 checker
1 dumpman

March 9

Photos 3 + 4 6 lb. 3 1/2 oz. weight used
for summit pool soundings. 1 sec. 128
and 2 sec. 128

March 10

Pit K: trucks 20-4-5-2-15-3-6-7-8

shovel #9, cat. + Me.

Pit A: trucks 5-6-40-34-31-12-33

shovel #8, cat. + Me.

Hog box; same force

Well	A.M.		Pool 691.4		Casing
	D.	El.	Gr. D.	El.	
1	44.5	618.9	0	663.4	663.4
2					
3	27.0	670.5	5.8	691.7	697.5
4	28.5	668.9	5.5	691.9	697.4
5	43.0	657.8	0	701.	700.8
6	41.3	660.7	0	702.	702.
Upstr. toe	2.2	572.8	-	-	575.0
On " "	27.9	549.6			577.5

March 12

Pit K: shovel #9, cat. 60 + McMillan

Trucks #4, 7, 3, 5, 8, 6, 2, 1, 14, 13.

Pit A: shovel #8, cat. 60 + McMillan

trucks 40-14-31-13-13-16-33

March 13

Pit A: shovel #8

trucks 34, 40, 16, 14, 13

March

March 15

Pit K: trucks 5-3-20-2-7-1-34-8

shovel "9, cat. co + McMillan

Pit A: trucks 13-39-16-40-45-33-14

AM.

Pool 691.7

Well	D.	El.	Gr. D.	El.	Casing
1	41.3	622.1		663.4	663.4
3	27.5	670.0	4.8	693.0	697.8
4	29.5	667.9	4.6	692.8	697.4
5	44.0	656.8		701.0	700.8
6	42.1	659.6		702.0	702.0
Upstr. toe	2.4	572.6			575.0
On "	28.0	549.5			577.5

March 16

Pit K: trucks 7-3-14-20-16-13-2-1-4-8

shovel "9, cat. co + McMillan

March 17

photo "5" Borrowpit excavation at
southeasterly end of pit C.

1 sec. 128

March 19

Photo "6" "Go devil" on upstr. beach

1 sec. 128 doll 9:30 AM.

Photo "1" Same as above 2 PM. S. - stop 12.

AM.

March 20 Pool 691.5

Well	D.	El.	Gr. D.	El.	Casing
1	40.7	622.7		663.1	663.4
3	28.8	668.7	1.8	692.7	697.5
4	31.0	666.4	4.6	692.8	697.4
5	44.5	656.3		701.0	700.8
6	43.0	659.0		702.0	702.0
upstr. toe	2.0	573.0			575.0
on "	27.9	549.6			577.5

Pit L: 23.8, 7.18, 1, 2, 5.4

shovel "9, cat. co + McMillan

Pit A: trucks 16-33-20-14-13

shovel "8 + crew

Photo "2" "Go devil" in operation in
puddle core 10:30 AM. S. - 16.

March 22

Photo #3 Damtransite #1, 9:30 AM. 1 1/2 - 128.
 Photo #4 Ramp from spillway broad to
 downstream, 9:45 AM. 1 1/2 sec. 128.

P.M. March 26 Pool 696.0

Well	D.	El.	Gr.D.	El.	Casing
1	42.2	621.2		663.4	663.4
3	32.3	665.2	4.8	692.7	697.5
4	40.0	657.4	4.6	692.8	697.4
5	45.5	655.3		701.0	700.8
6	44.0	658.0		702.0	702.0
Upstr. too	1.9	573.1			575.0
Downstr. "	27.8	549.7			577.5

March 27

Photo #5 spillway ext. w. from sta.
 6+00 1 sec. stop 128. 9 AM.
 Photo #6 same as above from sta
 8+00 1 sec. stop 128. 9:15 AM

March 30

Photo #1 N. from S. about 60 degrees
 in foreground 8:15 AM. 1 1/2 sec. stop 128

A.M. March 31 Pool 690.2

Well	D.	El.	Gr.D.	El.	Casing
1	42.5	620.9		663.4	663.4
3	37.3	660.2	4.8	692.7	697.5
4	41.6	655.8	4.6	692.8	697.4
5	45.7	655.1		701.0	700.8
6	44.5	657.5		702.0	702.0
Upstr. too	2.0	573.0			575.0
Downstr.	27.6	549.9			577.5

April 5

Well	D.	El.	Gr.D.	El.	Casing
1	43.0	620.4		663.4	663.4
3	38.6	658.9		692.7	697.5
4	42.6	654.8		692.8	697.4
5	50.2	650.6		701.0	700.8
6	46.3	655.7		702.0	702.0
upstr. toe	2.2	572.8			576.0
Down "	28.0	549.5			577.5
Pool elev. 689.6					

April 9

Photo 2 Flagline showing top of rock
16' board from rock shoulder to edge of
sand 2:30 PM. 1 sec. 128 stop.

Photo 3 S.E. end of spillway after shot
3 PM. 1 sec. 128 stop.

April 10

Well	D.	El.	Gr.D.	El.	Casing
1	44.4	619.0		663.4	663.4
3	40.1	657.4		692.7	697.5
4	43.4	654.0		692.8	697.4
5	56.0	644.8		701.0	700.8
6	48.0	654.0		702.0	702.0
Upstr. toe	2.4	572.6			576.0
Down "	28.0	549.5			577.5
Pool elev. 689.0					

April 11

Quarry shovel #9, 7 trucks
Pit A shovel #8, 2 trucks
Roads water truck & grader
Distrib. 1 cat. 60 bulldozer & operator
Photo #9 M. Krump Nabot. site
10:30 AM. 1 sec. stop 128.

April 12

Quarry shovel #9 & crew, 6 trucks
East emb. crane #11 & crew, 1 fore, 3 laborers

April 13

Quarry shovel #9, 4 trucks (5 sixes)
2 campers, 2 jackhammers
1 powder man, 1 helper
Embs. crane #11, 2 labs, 1 fore, distr.
1 cat. 60 bulldozer, 1 dump, up
Photo #5 shovel operating in E. cut
of spillway S. 1/4. 11 AM.
* Photo #6 crane placing rock at
distrib. toe of rock emb. 2 P.M. S-1/4.

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April 14 Pool 682.9

Well	D.	El.	Gr. D.	El. Casing
1	46.3	617.1		663.4 663.4
3	43.5	654.0		692.7 697.5
A	44.5	652.9		692.8 697.4
5	65.6	635.2		701.0 700.8
6	49.8	652.2		702.0 702.0
Upstr. toe	2.2	572.8		575.0
Distr. "	28.0	549.5		577.5

Quarry 2 portable campers, 1 electric bulldozer
shovel #9, 6 rock trucks, 4 drillers & jacks
1 powder man, 1 nipper, Molita
East emb. 1 fore, 2 labs, crane #11 & crew
Upstr. emb. 1 cat. 60 bulldozer & operator
Photo #1 commencing rock lift
at elev. 708 upstr. Emb. N. end.
7:30 AM. 1 sec. stop 64, light dull

April 16

Photo #2 transporting farm lumber
to Flume 9 AM. 1 1/2" stop 64, light
dull.

Dec. 10, 1933 - A.M.

Gauge 682.4 62

April 17

Quarry shovel "9, 6 trucks
 1 track mine, 1 caterpillar bulldozer
 2 compressors, 4 jackhammers
 reg. blacksmith equip.
 crane "11 + 4 men on dustr, rock too
 cat. cob bulldozer upstr.

April 18

Dustr emb. crane "11 operator, 3 laborers
 upstr. a cat. cob bulldozer

Photo "3. New agitating device operating
 at 34750 8:35 AM 1 sec. stop 128

Photo "4 Flume thru dam 9:15 1 sec. stop 128

Photo "5 Crane building sand levee on w.
 face upstr. rock emb. 9:35 AM. Inst 5 1/2

Photo "6 Dam from site "1, 9:45 AM 1 sec. 128

Sample #	Water Depth	Sample Depth	N.	E.	Ground 10/23/32
855 ^{Silt 12"} Sand 12"	7.5	9'-11'	3750	4990	676.3
856 Sand	7.0	7'-9'	"	4980	673.3
857 sand	5.5	5.5-7.5	"	4970	675.3
858 sand	1.0	2.0	"	4960	679.7
859 sand	0.0	0.0	3650	5050	677.9
860 sand	3.5	4'-6'	"	5040	674.3
861 sand	4.0	4'-6'	"	5030	672.4
862 sand	5.0	5'-7'	"	5020	670.7
863 sand	3.5	5'-7'	"	5010	669.0
864 silt	6.0	6'-8'	"	5000	669.4
865 silt	6.0	6'-8'	"	4990	670.3

Dec. 10, 1933. A.M.

Gauge 682.4

Sample #	Water Depth	Sample Depth	N.	E.	Ground 10/23/33
866 ^{Fine} Sand	6.0	6'-8'	3650	4980	671.1
867 Sand	5.0	5'-7'	"	4970	673.7
868 Sand	0.0	0.0	"	4960	676.8

Dec. 10, 1933. P.M.

889 Sand	0.0	0.0	3450	5050	
890 ^{1' silt = top} Sand	5.0	5'-7'	"	5040	
891 ^{3' silt = top} Sand	5.0	5'-8'	"	5030	
892 Silt	5.5	5.5-9	"	5020	
893 Silt	5.5	5.5-9.5	"	5010	
894 Silt	5.0	5'-9'	"	5000	
895 Silt	5.5	5.5-9.5		4990	

Dec. 10, 1933. P.M.

Gauge 682.5 ⁶³

Sample #	Water Depth	Sample Depth	N.	E.	Ground 10/23/33
896 ^{3' silt = top} Sand	4.5	5'-9'	3450	4980	
897 Sand	3.5	3.5-7.5	"	4970	
898 Sand	+1.0	—	"	4960	
899 Sand	2.0	2.0	3350	5060	
900 ^{1' silt = top} Sand	5.0	5'-8'	"	5050	
901 Silt	6.5	6.5-10.5	"	5040	
902 Silt	6.0	6'-10'	"	5030	
903 Silt	7.0	7'-11'	"	5020	
904 Silt	7.5	7.5-11.5	"	5010	
905 Silt	7.0	7'-11'	"	5000	

Sample #	Water Depth	Sample Depth	N.	E.	Ground 10/25/33
906 silt	6.0	6'-10'	3350	4990	
907 silt	6.0	6'-10'	"	4980	
908 sand	6.0	6'-10'	"	4970	
909 sand	2.0	2.0	"	4960	

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April 20 A.M.

Well	D.	El.	Gr.D.	El.	Casing
1	49.8	613.6		663.4	663.4
3	44.0	653.5		692.7	697.5
4	45.6	651.8		692.8	697.4
5	88.7	616.9		706.0	705.6
6	62.4	639.6		702.0	702.0
Upstr. toe	2.3	572.7			578.0
Dr " "	28.0	549.5			577.5

Pool elev. 690.5

Quarry same place

photo #1 - slicing ahead of rock on
upstr. emb 8:43 A.M. Inst. S stop 16photo #2 South abut. looking south
from about N. 3350 1 sec. 128. 9 A.M.photo #3 Dam from cce road 3 P.M.
1 sec. 128

photo #4

April 21

Quarry same drill force
6 rocks.

Same force on remainder of
Photo #4 sluicing sand from 700
foot level distr. rock emb. 10 AM.
1 sec. stop 128

April 23

Photo #5 sluicing up str. beach
near south abut. 9:00 AM. stop
69, 1 sec. light dull.

Quarry same force as previous
except one driller worked 2 hrs.

Distr. emb. 1 fore, 3 labs, 1 cat 60 bull
upstr. 1 cat 60 bull, 1 operator.

Photo #6 Sampling spillway material
at about sta. 0+28 3/4 sec. stop 128.
1:30 PM.

April 24

Photo #1 - Contr. sampling at about 4+80
Inst. S. stop 16. 9:10 AM.

Photo #2 sample at about 5+50 I.S. stop 16
9:15 AM.

Quarry shovel #9, 6 rock trucks,
4 drillers, 2 compis, 1 powderman,
1 helper, 1 nipper.

Rock hauling discontinued at
9:35 AM. upstr. emb. completed.
Distr. emb. 1 cat. 60 bulldozer, 1 fore,
3 laborers.

Upstr. emb.

April 25

Wall	D.	El.	Gr. D.	El.	Casting
1	53.7	609.7		663.4	663.4
3	44.4	653.1		692.7	697.5
4	45.5	651.9		692.8	697.4
5	81.4	624.2		706.0	705.6
6	71.0	631.0		702.0	702.0
Upstr. toe	2.6	572.4			575.0
Do "					577.5

Pool elev. 690.0

April 26

Photo 3 change in line, spw. extens.

8:30 AM. 1 sec. stop 128. sta. 17450

Photo 4 sample excav. at about 3+00

9:20 AM. 1 sec. stop 128.

Quarry same as yest.

Upstr. emb. 1 fore, 1 driller, 4 laborers

1 A.C. cat (part time) 1 compr.

Fence, 1 est. 12 bulldozer & operator

April 27

Fence 1 carp. fore, 1 carp., 4 labs., 1 est. & operator.

Upstr. Emb. 1 fore, 8 laborers.

Quarry same force as yesterday

April 28

Photo 5 removing rock stored on bench below spw. 10:30 I.S. stop 16.

Photo 6 spw. exten. W. from N. Side 13450, 10:45 AM. 1 sec. stop 128.

April 30

Upstr. emb. 1 fore, 1 est. & operator
3 laborers, 1 driller, 1 jackhammer,
1 portable compr.

Well	D.	El.	Gr. D	El.	Casing
1	45.7	618.1		663.1	663.4
3	43.5	654.0		692.7	697.5
4	45.0	652.1		692.8	697.1
5	75.0	630.6		701.0	705.6
6	79.5	627.5		702.0	702.0
Upstr. toe	3.0	572.0			575.0
					577.5

Pool elev. 689.5

May 1

Quarry 1 shorel '9, 6 rock trucks, 1 Cletrac bulldozer

Dam emb. 1 cat. 60 bulldozer & operator, 1 foreman, 3 laborers

1 portable compressor, 1 jack hammer, 1 driller 1 1/2 hrs.

Photo #1 Dam from site #1, 1:30 PM. 1 sec. stop 128 strong wind.

May 2

Quarry idle

Upstr. emb. 1 foreman, 4 laborers, 1 cat. 60 bulldozer & operator.

Roads no work.

Camp 1 water truck.

Shop 1 foreman, 1 mechanic, 1 helper, 1 watchman.

Bodenheimer 1 truck & driver repairing road between spillway & city camp.

May 3

Photo #2 Hydr. operation resumed on upstr beach near S. abut. 9:15 AM S. 16.

Upstr. emb. 1 cat. 60 bull. & oper., 1 foreman, 3 laborers.

Photo #3 sluicing in hog box 9:30 AM 1 sec. 128 stop.

Quarry shorel '9, 6 rock trucks, 1 Cletrac bull.

May 5

Well	D.	El.	Pool / Gr. D.	El.	Casing
1	50.0	613.4	Pool 690.0	663.4	663.4
3	42.0	655.5		692.7	697.5
4	42.8	654.6		692.8	697.4
5	69.0	636.6		701.0	705.6
6	72.5	629.5		702.0	702.0
Upstr	3.0	572.0			575.0
Downstr					577.5

May 7.

Quarry no work
 Upstr. emb. 1 foreman, 1 cat, 60
 bulldozers & operator & laborers
 Bodenheimer 1 carp., 1 laborer,
 1 truck driver.
 Camp 1 water truck & driver.

May 8

Quarry shovel "9", 6 rock trucks
 1 electric bulldozer
 Upstr. emb. 1 foreman, 8 laborers,
 1 cat & bulldozer & operator.
 Camp 1 water truck & driver, part
 time.
 Shop 1 foreman, 1 mechanic
 Bodenheimer 2 cat. operators, 1 welder,
 2 carpenters, 4 laborers
 Photo "5" cat. 75 & roofer breaking ground
 at about 13400 I.S. stop 16 3:30 PM.

May 9

Photo "5" cat. 75 & carry all at about sta
 12400 I.S. stop 16. 10:45 A.M.
 Photo "6" Dam from site "1" 10:55 A.M.
 1 sec. stop 128.
 Upstr. emb. 1 fore, 5 laborers, 1 cat & operator
 Hydr. fill supply pump 2 hrs
 Depth at 3200-8.0 gauge 690.5.

May 10 Pool 690.0

Quarry shovel "9" 4 trucks, electric
 Upstr. emb. fore, 5 labs, 1 cat.
 * Blacksmith in quarry shop.
 Gauge 690. Pool depth at 3200 7.8.

Well D.	El.	Gr.D.	El.	Casing
1	59.5 ²	603.9	663.4	663.4
3	45.0	652.5	692.7	697.5
4	43.0	654.7	692.8	697.4
5	76.0	633.0	707.5	709.0
6	78.3	623.7	702.0	702.0
Upstr. too	3.2	571.8		575.0
Dastr.				577.5

May 11

Quarry - no work

Upstr. emb " "

Gauge summit pool 689.9

Depth " " 7.0

May 14

Gauge 689.6 Sounding 7.0

Quarry No work

Path " "

Roads " "

May 15 Pool 689.5

Well	D.	El. Gr.D.	El. Casing
1	61.5	601.9	663.4 663.4
3	45.0	652.5	692.7 697.5
4	42.8	654.6	692.8 697.4
5	77.0	632.0	707.5 709.0
6	79.2	622.8	702.0 702.0
Upstr. too	3.2	571.8	575.0

Quarry Blacksmith, 2 laborers.
Walsh brot cat & Me. today from
pit A. Gauge 689.5 Depth 3.0

May 16

Quarry Blacksmith

Camp water truck & driver

Shop same force (2 men) 1 Ford truck
& driver.

Summit Pool Gauge 689.4, Depth 3.0

May 17

Quarry 1 blacksmith
Shop 1 mechanic, 1 truck driver
Camps no work
Roads "

Photo #1 Spillway extension operations
looking S.W. from north slope
at spillway at about sta. ^{8:45 AM} 7+00.

Photo #2 Spur ext. N. from S, about
near tunnel exit, 9:30 A.M.
1 sec. stop 120 (same for "1)

Washrack 1 cat 60 bulldozer 1/2 day
1 " operator " "
3 laborers " "

May 18

Quarry 1 blacksmith
Shop force on force acct.
Misc. 1 cat 60 bulldozer + operator
on ramp around spoil bank
Washrack Terry, Marion, 3 laborers,
until 9:30 A.M.

Gauge 689.1 D. 2.8

May 19

3 str 1 lab 1 fore 3 cats
1 watchman, 1 blacksmith
1 electrician
Gauge 689.0 D. 2.8

May 20

1 watchman

May 21 688.9

1 blacksmith
1 fore 3 cats 2 lab's 4-11 Knapp
Photo #3 Concr. lost pour S about 7 AM
Gauge 688.9 D. 2.7
Shovel 7 + crew on road thru d'n str.
spoil bank
186 Gr. yd. 2:00 - PM.

Well	D.	El.	Gr. D.	El.	Casing
1	65.0	598.4		603.4	663.4
3	45.2	652.3		692.7	697.5
4	44.0	653.4		692.8	697.4
5	81.0	628.0		707.5	709.0
6	80.0	622.0		702.0	702.0
up str. loc.	3.1	571.9			

May 22

Knapp: 186 loads 4-11 AM,
 170 " 12 AM - 7 PM,
 189 " 8 PM - 3 AM.
 shift " 1 1 core, 2 labs, 3 cat. opers.
 " 2 1 " " " "

Bedenheimer: 1 timekeeper, 4 laborers
 1 truck driver, 1 blacksmith

Gauge 688.9 Depth 2.7

Shop 1 core, 1 mechanic, 1 A.C. cat.
 Road shovel " 7 + crew. 1 cat. 60 bulls.
 dozer operator 1/2 day

May 23

3 cats, 2 labs, 1 core. Knapp A.M.
 Photo " 4 Road thru duster spoil 1"-128 9:50 AM
 Photo " 5 Dam from site " 1 10 AM, 1"-128.
 Knapp 168-1
 196-2
 172-3

May 24

Bedenheimer T.K. 3 labs.
 Knapp 3 cats, 2 labs, 1 blacksmith
 1-210, " 2-190-160

May 25 Pool 688.7

Well	D.	El.	Gr. D.	El.	Casing
1	65.0	598.4		663.4	663.4
3	45.5	652.0		692.7	697.5
4	44.5	652.9		692.8	697.4
5	89.5	619.5		707.5	709.0
6	80.5	621.5		702.0	702.0
Upstr. toe	3.7	574.9			575.0
Pin					577.0

Gauge 688.7 D. 2.0
 Bedenheimer + Knapp same force
 " 1-210, " 2-188 " 3-191

May 26

Bedenheimer same force
 Knapp " " "
 shift 1-125 - 2-134 - 3-143
 Gauge 688.7 D. 2.0

May 28

Photo #1 Dam at tunnel entrance

10 AM. 1 1/4 slow.

Gauge 620.5 D. 3.9

Photo #2 Go down at 28+50, 3:45 PM.

1/4 stop, 12.

Dam at tunnel 1 store, 4 labs, 1 eat, 1 truck.

Well	D.	El.	G.P.	El.	Casing
1	66.2	597.2		663.4	663.4
3	46.0	651.5		692.7	697.5
4	45.2	652.2		692.8	697.4
5	88.0	621.0		707.5	709.0
6	81.2	620.8		702.0	702.0
Upstratae	3.5	571.5			575.0
Pa "		549.6			577.5

Photo #3 Agitator near s. abut. 9:30 AM. 1 1/2" 128.

Photo #4 Coner E. end spw. 10:30 AM. 1" 128.

" 5 Spw. ext. 9+00 2:30 PM. 1" 128.

" 6 " " E. from 18+00 2:45 PM. 1" 128.

1/9/34 Puddle Core Samples.

Albert Hill
Harper Converse.

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Sample	Water D.	Sample D.	N.	E.	Gauge
1672	675.0	675-674	3700	4970	682.7
1673	514	674- ⁶⁶⁸ 671			
1674	5+51	673- ⁶⁶⁶ 669		4980	
1675	677.5	672.5-671.5		4990	
1676		- ^{665.5} 668.5			
1677	674.0	674-672.5		5000	
1678		672.5- ⁶⁶⁶ 670			
1679	674.0	674-672.5		5010	
1680		- ⁶⁶⁶ 670			
1681	673.0	673-669		5020	
1682	675.0	675-671		5030	
1683	681.0	681-678		5040	
1684	Composit at N. 3700				

12/8/33

Puddle core samples

D.W. Albert
H.L. Harper
L.H. Hill

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Group B. 10/23	Sample	Water D.	Sampled	N.	E.	Gauge
670	674	0.5	1.0	3200	1950	683.
669	675	3.0	5'-7'	"	1960	
667	676	6.0	8'-10'	"	4970	
666	677	7.0	8'-10'	"	4980	
667	678	6.5	8'-10'	"	4990	
667	679	6.0	9'-11'	"	5000	
	680	"	11-16'	"	"	
668	681	5.5	9'-11'	"	5010	
	682	"	11-16'	"	"	
669	683	6.5	11-13'	"	5020	
670	684	5.0	8'-10'	"	5030	

Sample showed 0.5 silt, i.e. sand, then silt.

(cont.)

Sample No.	Water D.	Sample D.	N.	E.	Gauge
685	4.0	6'-8'	3200	5040	Gauge 683 Ground 10/23 673.
686		9'-11'	"	"	"
686A silt bot.					
686B sand	(1.5 sand then silt)				
—	2.5	sand sloping beach	N. 3300	5060	672.
687	6.0	9'-11'	3300	5050	676.
688A silt bot.	7.0	8'-10'	"	5090	669.5
688B sand	1.5 sand ex silt "				
689A sand	7.5	9'-11'	"	5030	670.
689B silt bot	1.3 sand 0.7 silt				
690	7.5	10'-12'	"	5020	667.
691	7.5	12'-14'	"	5010	666.
692A silt	7.0	12'-14'	"	5000	666.
692B sand	0.7 silt then 1.3 sand				
693A silt	8.0	11'-13'	"	4990	666.
693B sand	0.5 silt 1.5 sand				

(cont.)

Sample No.	Water D.	Sample D.	N.	E.	Gauge
694A sand	8.0	10'-12'	3300	4980	Gauge 683 Ground 10/23 669.
694B silt	sand to then silt 1.0				
695A sand	7.0	10'-12'	"	4970	672
695B silt	0.7 sand then 1.3 silt				
696A sand	6.0	7-9	"	4960	675.
696B silt	1.0 sand then silt 1.0				
12/9/33 Gauge 6825					
696A silt bot	5.5	6-8	3300	4960	675
697 sand top	1.0 sand then 0.5 silt "				
698 sand	3.5	5.5-7	3400	4970	673.5
699 sand	5.0	7-9	"	4980	669.5
700 sand	5.5	10.5-12'	"	4990	668.0
701 silt	5.5	14'-16'	"	5000	666.5
702 sand	"	11-13	"	"	"
703 "	5.0	11-13	"	5010	667.5
704 silt	5.0	11'-12'	"	5020	669.5
705 sand	"	10'-11'	"	"	"
706 silt	5.0	8-10	"	5030	672.0

Sample	Water D.	Sample D.	N.	E.	Ground
707 silt	5.0	6-8'	3400	5040	675.0
708 sand	"	9-11'	"	"	"
709 sand	4.5	5-7'	"	5050	679.0
710 sand	5.0	6-7.5'	3500	5040	675.
711 silt	6.0	8-9'	"	5030	671.5
712 sand	"	9-10'	"	"	"
713 sand	5.5	10-12'	"	5020	670.0
714 silt	6.0	12-14'	"	5010	668.0
715 sand	"	8-11'	"	"	"
716 silt	5.5	10-12'	"	5000	666.0
717 sand	5.5	9-11'	"	4990	668.5
718 sand	6.0	9-11'	"	4980	670.5
719 sand	5.0	6-8'	"	4970	673.5
720 sand	0	0	"	4960	676.5

Simpson-Pec. Dec. 9, 1933

Gauge 682.5 75

Sample #	Water D.	Sample D.	N.	E.	Ground
744 Sand	0.5	0.5	3800	5060	681.0
745 Sand	2.0	2.0	"	5050	678.0
746 Sand	6.0	6'-8'	"	5040	677.1
747 silt	8.0	8-10'	"	5030	674.5
748 silt	9.0	9-11'	"	5020	673.0
749 silt	8.5	9-11'	"	5010	672.0
750 silt	8.5	10-12'	"	5000	672.5
751 silt	8.0	10-12'	"	4990	673.0
752 silt.	7.5	9-11'	"	4980	673.5
753 Sand + silt.	5.5	6.5-8.5'	"	4970	676.0
754 Sand	2.0	2.0	"	4960	679.5

Dec. 9, 1933

Gauge 682.5

Sample #	Water D.	Sample D.	N.	E.	Ground 10/20/31
755 Sand	0.5	0.5	3900	5060	
756 Sand	1.0	1.0	"	5050	681.0
^{silt} 757 Sand	5.0	5-7'	"	5040	677.0
758 silt	7.5	7.5-9.5	"	5030	674.0
759 silt	8.5	8'-10'	"	5020	672.5
760 silt	8.5	9-11'	"	5010	672.5
761 silt	8.0	8-10'	"	5000	674.0
762 silt	7.5	8-10'	"	4990	675.0
^{Sand +} 763 silt	6.5	8'-10'	"	4980	675.5
^{Sand +} 764 silt	"	6-8'	"	"	"
^{Sand +} 765 silt	3.5	4-6'	"	4970	678.0
766 Sand	1.0	1.0	"	4960	681.0

Simpson-Rec.

Dec. 9, 1933.

76

Beach Samples.		
Sample #	N.	E.
767	3700	5060
68	"	5070
69	3620	5060
770	"	5070
71	"	5080
72	3500	5060
73	"	5070
74	"	5080
75	3400	5070
76	"	5080
77	"	5090
78	3300	5080
79	"	5090
780	3200	5060
1	"	5070
2	"	5080
3	"	5090
4	"	4940
5	"	4930
6	"	4920
7	"	4910
8	"	4900
9	"	4890
790	3300	4940

Sample No.	N.	E.	Sample No.	N.	E.
791	3300	4930	816	3620	4890
792	"	4920	7	3700	4950
793	"	4910	8	"	4910
4	"	4900	9	"	4930
5	"	4890	820	"	4920
6	N.3400	4950	1	"	4910
7	"	4940	2	"	4900
8	"	4930	3	"	4890
9	"	4920	4	"	4880
800	"	4910	5	3800	4950
1	"	4900	6	"	4940
2	N.3500	4950	7	"	4930
3	"	4940	8	"	4920
4	"	4930	9	"	4910
5	"	4920	830	"	4900
6	"	4910	1	"	4890
7	"	4900			
8	"	4890			
9	N.3620	4960			
810	"	4950			
1	"	4940			
2	"	4930			
3	"	4920			
4	"	4910			
5	"	4900			

Puddle core beach samples

12/6/33

D.W. Albert
L.H. Hill

Sample No.	Gr. El.	Sample El.	N.	E.	Gauge
649	+1.5	+0.5	3620	4940	683.2
650	+3.0	+2.0	"	4920	
651	+4.0	+3.0	"	4900	
652	+5.0	+4.0	"	4880	
653	+2.0	+1.0	3956	4940	
654	+4.0	+3.0	"	4920	
655	+5.0	+4.0	"	4900	
656	+5.5	+4.5	"	4880	
657	+1.0	0.0	3315	4940	
658	+2.0	+1.0	"	4920	
659	+3.0	+2.0	"	4900	
660	+4.0	+3.0	"	4880	
661	+1.0	0.0	3230	4920	
662	+2.0	+1.0	"	4900	
663	+3.0	+2.0	"	4880	
664	+1.0	0.0	3620	5060	
665	+2.0	+1.0	"	5080	
666	+1.0	0.0	3456	5060	
667	+3.0	+2.0	"	5080	
668	+0.5	-0.5	3315	5080	
669	+0.5	-0.5	3230	5060	
670	+2.0	+1.0	"	5080	

N. 3620

N. 3456

N. 3315

N. 3230

W. 9118 Richfield Oil Pump

Sept. 5, 1933

Gage 669.0

Sample	Sample D.	W. Depth	Easting	Northing	Cor. samp number
388	14'	11.0	5040	3600	408
389	20'	13'	5000	"	409
390	12'	9'	4960	"	410
391	13'	10'	4960	3850	411
392	20'	13'	5000	"	412
393	15'	10'	5040	"	413
394	15'	10'	4960	3500	414
330	20'	13'	5000	"	415
	17'	11'	5040	"	416

~~Sept.~~ Nov. 8

Sample	Depth sample	Depth Water	Easting	Northing	Gauge
576	5'	4'	4955	3890	681
577	10'	7'	5000	"	
578	8'	6'	5045	"	
579	5'	4'	4955	3600	
580	14'	10'	5000	"	
581	8'	7'	5045	"	
582	15'	9'	4955	3250	
583	18'	14'	5000	"	
584	6'	7'	5045	"	

Hydraulic fill samples Oct. 3, 1919

Sample	North	East	Water	Depth	W.S.
325	3180	5000	15	23	678.0
408	3200	5000	15	25	
409	3400	5000	15	25	
410	3500	5000	13	25	
411	3660	5000	13	25	
412	3800	5000	13	25	
413	3940	5000	13	23	

318 Composite sample downstream
beach - 12 locations

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder
taken for any width roadway, slope 1:1 to 1:
If ground is nearly level, the cut or fill at
stake is located by the double entry method in
left column and top row. The number in both

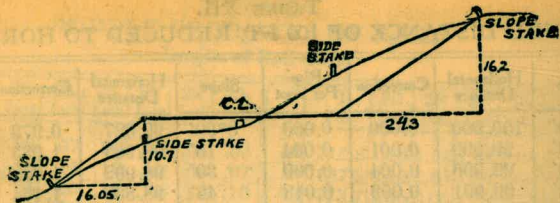
IMPROVED TABLES

AND

INFORMATION

TABLE No. 2.

To find Tangent and Extant for curves
any other degree divide by degree of curve and
add correction found in column of correction
Degrees of curve with a given L may be found
by entering tangent (or extant), opposite L by
given tangent (or extant).
The distance from a point on the tangent to
the curve is very nearly the square of the tangent
length divided by twice the radius.

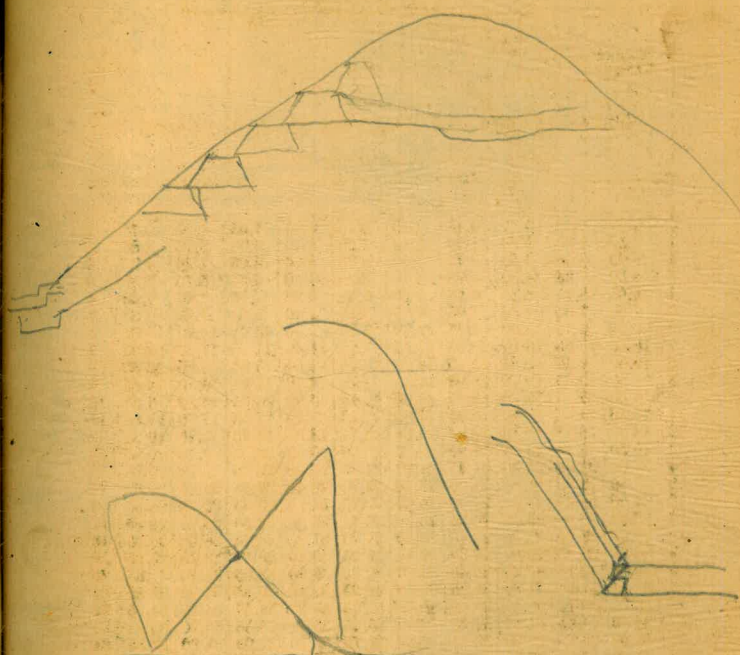


DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE $1\frac{1}{2}$ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.



24
500
19200

2850
24
57000
68100

N 2010 2360
E, 10340 10,370

17003
624
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5-770

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57

38226
14

1529
382264
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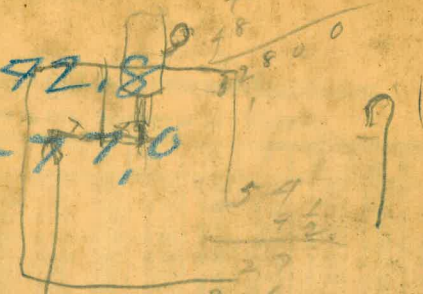
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1850
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15

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6-41.3

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9800
18
2800
59
42



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25.6
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1530
258
408.0

.27
9
108
3
324
108
432

27
4 1/2
132
108
121 1/2
3
363

324
39
363

108
1.19
3
3.57
13 1/2
3
39

