

L-36 (Elbon Site)		7/30/99	7/20/99	6/1/99					
pH		3.43	3.68	3.6					
Alk.		<1 mg/L	<1 mg/L	<1 mg/L					
Acidity		251 mg/L	244 mg/L	187 mg/L					
Cond.		2170 omhos	1990 omhos	2390 omhos					
Fe		49.6 mg/L	48.5 mg/L	38.5 mg/L					
Fe Ferrous		40.5 mg/L	38.5 mg/L	20.0 mg/L					
Mn		6.8 mg/L	7.0 mg/L	14.0 mg/L					
Al		21.7 mg/L	20.9 mg/L	14.7 mg/L					
Ca		280 mg/L	287.0 mg/L	306 mg/L					
SO4		1452 mg/L	1486 mg/L	1498 mg/L					
Mg		118 mg/L	123.8 mg/L	135 mg/L					
Hardness		1185 mg/L	1226 mg/L	1320 mg/L					
Net Acid		251 mg/L	244 mg/L	187 mg/L					
Flow	11 gpm (low flow)								
Blue Valley Coal Site		7/6/99	7/10/99	7/20/99	FLOW				
Inflow					193 - 397 gpm				
	pH	6.25	6.2						
	Total Fe	18.2 mg/L	18 mg/L						
	Alkalinity								
	Fe			154 mg/L					
				14.8 mg/L					
Outflow									
	pH	6.85	6.95						
	Total FE	9.8 mg/L	8.3 mg/L						
	Alkalinity								
	Fe			139 mg/L					
				9.0 mg/L					
Coal Hollow (Ranges from 7/96 thru 4/28/99) Post Construction									
	pH	ALK (MG/L)	HOT A (MG/L)	FE (MG/L)	MN (MG/L)	AL (MG/L)	SO4 (MG/L)	TSS (MG/L)	NA (MG/L)
Inflow	5.7 - 6.1	40.0 - 50.0	0.00 - 36.0	4.16 - 10.3	.85 - 1.58		<.5	201.0 - 392.4	<3 - 12.0
Outflow	6.1 - 6.6	30.0 - 54.0	0.00 - 12.00	2.53 - 5.57	.822 - 1.48		<.5	210.0 - 312.3	<3 - 14.0
Hayes Run (Ranges from 7/96 thru 5/26/99) Post Construction									
	pH	ALK (MG/L)	HOT A (MG/L)	FE (MG/L)	MN (MG/L)	AL (MG/L)	SO4 (MG/L)	TSS (MG/L)	NA (MG/L)
Inflow	6.1 - 6.4	102.0 - 140.0	0.00 - 62.00	21.6 - 31.5	5.92 - 8.1		<.5	607.6 - 835.6	<3 - 34.0
Outflow	6.4 - 6.8	70.0 - 98.0	0.00 - 0.00	4.18 - 24.0	5.73 - 7.82		<.5	597.0 - 758.2	<3 - 32.0
Mead Run (7/27/98)									
	pH	Total Iron	Ferrous Iron	Acidity	Alkalinity		Flow		
Inflow	6.45	9.3 mg/L	7.95 mg/L	<1 mg/L	58 mg/L		81 - 191 gpm		
Outflow	6.66	2.3 mg/L	1.11 mg/L	<1 mg/L	60 mg/L		350-400 gpm		

Data from 10/96 - 1/98 was not available when planning design were completed

BCUB

LT 36 (8/60)

MP	COLLECTOR #	DATE	FLOW	PH	ALK	ACIDITY	FE	MIN	AL	SD4	TSS	NA	FE LOAD	MIN LOAD	AL LOAD	SD4 LOAD
BCUB	4217 776	10/9/96	94.0	3.2	0.0	220.0	30.00	10.30	21.00	957.0	96	<10	44.00022	11.63776	24.40541	1061.28518
BCUB	4217 888	11/21/96	94.0	3.3	0.0	270.0	33.20	10.00	21.00	1276.2	<3	<10	37.51202	11.28860	24.83138	1441.86286
BCUB	4214 750	1/28/97	94.0	3.3	0.0	232.0	28.00	7.95	15.00	1231.9	<3	<10	32.54064	8.90255	17.96508	1391.89917
BCUB	4233 245	2/27/97		3.3	0.0	198.0	24.20	7.81	18.30	1130.0	<3	<10				
BCUB	4214 700	4/23/97		3.5	0.0	212.0	22.00	6.94	15.10	1103.1	16	<10				
BCUB	4233 520	5/29/97		3.5	0.0	192.0	26.00	6.06	14.00	1076.1	20	<10				
BCUB	4214 805	9/28/97	50.3	3.5	0.0	216.0	31.00	6.71	15.30	1122.0	16	<10	19.22047	4.05601	9.25047	676.36793
BCUB	4237 835	8/10/97	59.7	3.6	0.0	138.0	23.00	4.34	11.30	794.0	-24	<10	16.93522	3.25768	8.10001	569.76964
BCUB	4214 851	9/17/97	16.7	3.5	0.0	228.0	34.30	6.00	16.00	1180.2	10	<10	6.88618	1.20440	3.37233	238.91361
BCUB	4214 865	10/29/97	16.7	3.6	0		24.1	5.33	14.2	1124	12	<10	4.83769	1.06001	2.85042	225.56480
BCUB	4214 919	11/25/97	64.2	3.6	0	100	13.9	4.32	9.52	934.1	6	<10	15.73875	4.89147	10.77934	1057.88646
BCUB	4214 951	1/21/98		3.6	0	120	14.7	7.15	12.7	1216	16	<10				
		7/95	63													
		5/95	74													
		4/95	68			215										
		7/95	102			242										
		2/95	111			226										
		1/95	77													
		Running	14			15										

Drainage flow - 95 gpm will be exceeded only (2/14) - 14% of time

Drainage Acidity - 230 mg/l will be exceeded only 2/15 - 13% of time

Analytical Services, Inc.

R.D. #2, Box 282
Brockway, PA 15824

Laboratory (814) 265-8749
FAX (814) 265-8749

GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters/NRCS
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

SAMPLE DATE: 07/30/99 at 9:30am REPORT DATE: 07/30/99
SAMPLE RECEIVED: 07/30/99
ASI ID#: 24298 P.O.#:

DESCRIPTION OF SAMPLE: Elbon Site Discharge LT-36

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
No Treatment:			
Alkalinity	< 1 mg/L	310.1	BT 07/30/99
pH	3.43 mg/L	150.1	BT 07/30/99
Hot Acidity	251 mg/L	305.1	CS 07/30/99
Iron	49.6 mg/L	236.1	WJS 07/30/99
Manganese	6.8 mg/L	243.1	WJS 07/30/99
Aluminum	21.7 mg/L	202.1	WJS 07/30/99
Ferrous Iron	40.5 mg/L	SM3500Fe-D, 4.C	CS 07/30/99
Conductivity	2170 umhos/cm	120.1	BT 07/30/99
Sulfate	1452 mg/L	375.4	BT 07/30/99
Hardness	1185 mg/L	130.2	WJS 07/30/99
Calcium	280 mg/L	215.1	WJS 07/30/99
Magnesium	118 mg/L	242.1	WJS 07/30/99
Net Acidity	251 mg/L	305.1	CS 07/30/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William G. Sabatone*

Date: 07/30/99

Title: Chief Chemical Analyst

Analytical Services, Inc.

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Brockway, PA 15824

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GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

0610.8506

SAMPLE DATE: 08/03/99 at 10:30am
SAMPLE RECEIVED: 08/03/99
ASI ID#: 024328-A

REPORT DATE: 08/04/99
P.O.#:

DESCRIPTION OF SAMPLE: LT-36 Cubitainer Test - After 2 Hrs.
(12:30 pm)

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
pH	6.34	mg/L 150.1	BT 08/03/99
Alkalinity	120	mg/L 310.1	BT 08/03/99
Acidity	7	mg/L 305.1	CS 08/03/99
Conductivity	2290	umhos/cm 120.1	CS 08/03/99
Total Iron	35.8	mg/L 236.1	BT 08/03/99
Ferrous Iron	25.3	mg/L SM3500 Fe, D-4.c	CS 08/03/99
Manganese	5.8	mg/L 243.1	BT 08/03/99
Aluminum	<.2	mg/L 202.1	BT 08/03/99
Calcium	318	mg/L 215.1	BT 08/03/99
Sulfate	1508	mg/L 375.4	CS 08/03/99
Magnesium	108.4	mg/L 242.1	BT 08/03/99
Net Alkalinity	113	mg/L Calc.	BT 08/03/99
Hardness	1240	mg/L 130.2	BT 08/03/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William J. Sabatini*

Date: 08/04/99

Title: Chief Chemical Analyst

Analytical Services, Inc.

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Brockway, PA 15824

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GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

SAMPLE DATE: 08/03/99 at 10:30am REPORT DATE: 08/04/99
SAMPLE RECEIVED: 08/03/99
ASI ID#: 024328-B P.O.#:

DESCRIPTION OF SAMPLE: LT-36 Cubitainer Test - After 4 Hrs.
(2:30 pm)

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
pH	6.56 mg/L	150.1	CS 08/03/99
Alkalinity	149 mg/L	310.1	CS 08/03/99
Acidity	< 1 mg/L	305.1	WJS 08/03/99
Conductivity	2310 umhos/cm	120.1	CS 08/03/99
Total Iron	33.6 mg/L	236.1	RLD 08/03/99
Ferrous Iron	19.1 mg/L	SM3500 Fe,D-4.c	CS 08/03/99
Manganese	6.4 mg/L	243.1	RLD 08/03/99
Aluminum	< .2 mg/L	202.1	WJS 08/03/99
Calcium	412.5 mg/L	215.1	WJS 08/03/99
Sulfate	1466 mg/L	375.4	CS 08/03/99
Magnesium	110 mg/L	242.1	WJS 08/03/99
Net Alkalinity	149 mg/L	Calc.	WJS 08/03/99
Hardness	1483 mg/L	130.2	WJS 08/03/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William J. Sabatore*

Date: 08/04/99

Title: Chief Chemical Analyst

Analytical Services, Inc.

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GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

SAMPLE DATE: 08/03/99 at 10:30am
SAMPLE RECEIVED: 08/03/99
ASI ID#: 024328-C

REPORT DATE: 08/04/99

P.O.#:

DESCRIPTION OF SAMPLE: LT-36 Cubitainer Test - After 6 Hrs.
(4:30 pm)

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
pH	6.60 mg/L	150.1	RLD 08/03/99
Alkalinity	167 mg/L	310.1	RLD 08/03/99
Acidity	< 1 mg/L	305.1	RLD 08/03/99
Conductivity	2310 umhos/cm	120.1	CS 08/03/99
Total Iron	30.0 mg/L	236.1	WJS 08/03/99
Ferrous Iron	22.2 mg/L	SM3500 Fe,D-4.c	CS 08/03/99
Manganese	6.0 mg/L	243.1	WJS 08/03/99
Aluminum	< .2 mg/L	202.1	WJS 08/03/99
Calcium	425 mg/L	215.1	WJS 08/03/99
Sulfate	1574 mg/L	375.4	CS 08/03/99
Magnesium	111 mg/L	242.1	WJS 08/03/99
Net Alkalinity	167 mg/L	Calc.	WJS 08/03/99
Hardness	1518 mg/L	130.2	WJS 08/03/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William J. Sabatini*

Date: 08/04/99

Title: Chief Chemical Analyst

Analytical Services, Inc.

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GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

SAMPLE DATE: 08/03/99 at 10:30am REPORT DATE: 08/04/99
SAMPLE RECEIVED: 08/03/99
ASI ID#: 024328-D P.O.#:

DESCRIPTION OF SAMPLE: LT-36 Cubitainer Test - After 8 Hrs.
(6:30 pm)

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
pH	6.60 mg/L	150.1	WJS 08/03/99
Alkalinity	176 mg/L	310.1	WJS 08/03/99
Acidity	< 1 mg/L	305.1	WJS 08/03/99
Conductivity	2300 umhos/cm	120.1	WJS 08/03/99
Total Iron	29.0 mg/L	236.1	WJS 08/03/99
Ferrous Iron	26.5 mg/L	SM3500 Fe,D-4.c	WJS 08/03/99
Manganese	6.0 mg/L	243.1	WJS 08/03/99
Aluminum	<.2 mg/L	202.1	WJS 08/03/99
Calcium	430 mg/L	215.1	WJS 08/03/99
Sulfate	1570 mg/L	375.4	WJS 08/03/99
Magnesium	110 mg/L	242.1	WJS 08/03/99
Net Alkalinity	176 mg/L	Calc.	WJS 08/03/99
Hardness	1527 mg/L	130.2	WJS 08/03/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William J. Sabatol*

Date: 08/04/99

Title: Chief Chemical Analyst

Analytical Services, Inc.

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GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

SAMPLE DATE: 08/03/99 at 10:30am REPORT DATE: 08/04/99
SAMPLE RECEIVED: 08/03/99
ASI ID#: 024328-E P.O.#:

DESCRIPTION OF SAMPLE: LT-36 Cubitainer Test - After 12 Hrs.

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
pH	6.60 mg/L	150.1	WJS 08/03/99
Alkalinity	180 mg/L	310.1	WJS 08/03/99
Acidity	< 1 mg/L	305.1	WJS 08/03/99
Conductivity	2312 umhos/cm	120.1	WJS 08/03/99
Total Iron	28.8 mg/L	236.1	WJS 08/03/99
Ferrous Iron	26.0 mg/L	SM3500 Fe, D-4.c	WJS 08/03/99
Manganese	6.0 mg/L	243.1	WJS 08/03/99
Aluminum	< .2 mg/L	202.1	WJS 08/03/99
Calcium	434 mg/L	215.1	WJS 08/03/99
Sulfate	1578 mg/L	375.4	WJS 08/03/99
Magnesium	112 mg/L	242.1	WJS 08/03/99
Net Alkalinity	180 mg/L	Calc.	WJS 08/03/99
Hardness	1544 mg/L	130.2	WJS 08/03/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William J. Sabatone*

Date: 08/04/99

Title: Chief Chemical Analyst

Analytical Services, Inc.

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GENERAL CHEMICAL ANALYSIS REPORT

CUSTOMER: Headwaters
478 Jeffer St.
DuBois, PA 15801
Attn: Andy Peck

SAMPLE DATE: 08/03/99 at 10:30am
SAMPLE RECEIVED: 08/03/99
ASI ID#: 024328-F

REPORT DATE: 08/04/99
P.O.#:

DESCRIPTION OF SAMPLE: LT-36 Cubitainer Test - After 24 Hrs.

ANALYSIS RESULTS:

PARAMETER	RESULT	METHOD	BY/DATE
pH	6.61 mg/L	150.1	WJS 08/04/99
Alkalinity	200 mg/L	310.1	WJS 08/04/99
Acidity	< 1 mg/L	305.1	WJS 08/04/99
Conductivity	2270 umhos/cm	120.1	WJS 08/04/99
Total Iron	24.8 mg/L	236.1	WJS 08/04/99
Ferrous Iron	23.5 mg/L	SM3500 Fe,D-4.c	WJS 08/04/99
Manganese	6.0 mg/L	243.1	WJS 08/04/99
Aluminum	<.2 mg/L	202.1	WJS 08/04/99
Calcium	441 mg/L	215.1	WJS 08/04/99
Sulfate	1360 mg/L	375.4	WJS 08/04/99
Magnesium	110 mg/L	242.1	WJS 08/04/99
Net Alkalinity	200 mg/L	Calc.	WJS 08/04/99
Hardness	1553 mg/L	130.2	WJS 08/04/99

We certify that the above reported values were obtained by use of procedures appropriate for the sample as submitted.

BY: *William Habator*

Date: 08/04/99

Title: Chief Chemical Analyst

E/bm

PA
EES 1-25-00 LT. TROY PL-566
61M 7/17/02 LT-~~28~~ 36
DESIGN SAPS 1

1ST SAPS

120 GPM/MIN $\frac{1}{4}$ 4 HR DETENTION

$$M_1 (\text{LIMESTONE}) = \frac{120 \text{ gpm} \times 1.5 \text{ T/cy} \times (4 \text{ HR} \times 60 \text{ min}) \times 4.95 \times 10^{-3} \text{ cy/gal}}{0.5}$$
$$= 428 \text{ TONS OR } 285 \text{ c.y.} \checkmark$$

$$M_2 (\text{MASS, DIS.}) = 95 \text{ gpm} \times 300 \text{ mg/l} \times 25 \text{ yr.} \times 3.785 \frac{\text{L}}{\text{gal}} \times 525,600 \frac{\text{min}}{\text{yr}}$$
$$\times \left(\frac{1}{1000} \text{ mg} \times 2.205 \times 10^{-3} \text{ lb/g} \times 1 \text{ T/2000 lb} \right) \div 0.9$$
$$= 1736.4 \text{ TONS (ASSUMING 4 HR. DETENTION}$$

WILL GENERATE 300 mg/L ALKALINITY)

→ BUT ASSUME ONLY 150 mg/L ALK. IN 4 HRS.

$$M_2 = 868 \text{ TONS}$$

$$\therefore \text{1ST SAP} = 1296 \text{ TON OR } 864 \text{ c.y. (23,328 c.f.)} \checkmark$$

$$\text{REQUIRED TONNAGE} = 1296 \text{ T, ACTUAL} = 1468 \text{ T}$$

~~@ 3' DEEP LAYER ROCK = 7776 s.f.~~

~~= 88 FT. SP. POND OR 80' x 97.2'~~
USE 80 x 95' BOTTOM DIMEN.

2ND SAP - 12 HR. DETENTION

$$M_1 = 1284 \text{ TON (120 gpm - 12 hr. detention)} \checkmark$$

$$M_2 = 868 \text{ TON (95 gpm, 150 mg/L alk.)} \checkmark$$

$$\text{TOTAL ROCK} = 2152 \text{ TON OR } 1435 \text{ c.y.}$$
$$= 38,736 \text{ c.f.}$$

~~@ 3' DEPTH = 12,912 s.f.~~

~~= 114 FT. SP. OR 100' x 129'~~
~~USE 100 x 130' BOTTOM.~~

$$\text{REQ'D} = 2152 \text{ TONS ACTUAL} = 1863 \text{ TONS}$$

FA
EBS 3-0-00

Lt. TOBY CR. W/S
GLM 7/17/00

LT-36

SAPS #1 FLUSHING SYSTEM

12" PVC PIPE @ 0.5% = 3 cfs

@ 1.0% = 4.2 cfs

3/4" HOLE @ 4' HEAD = 0.030 cfs & 2' HEAD = 0.021 cfs

@ 40 holes per pipe x 5 laterals = 200×0.021 cfs (2' head)
= 4.2 cfs

NOTE THERE IS 6' WATER IN SAPS (3' ROCK + 3' WATER)

FOR FLUSHING USE AVG. OF 4' HEAD

OUTLET PIPE = 12" PVC @ 1.0% $\Rightarrow$ CAPACITY = 4.2 cfs

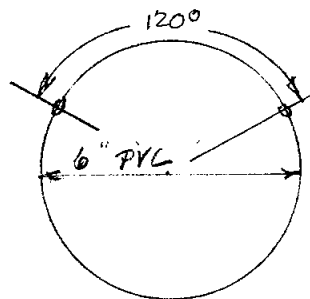
Provide $4.2 \text{ cfs} \div 0.03 \text{ cfs/hole} = 140$ HOLES

w/ $85' \times 5 = 425$ L.F. 6" DIA. PIPE = 3' SPACING

USE CONSERVATIVE DESIGN, 2 ROWS @ 1' SPACING

THIS WILL BE MORE THAN REQ'D FOR "UP-FLOW"
DISCHARGE INTO SAPS AS DISCHARGE = 120 gpm (MAX.)
OR 0.27 cfs.

BUT ELEV. IN SAPS #1 WILL BE CONTROLLED BY
INVERT OF ROCK WATERWAY WHICH IS @ EL. 1613.0
WHICH IS 3' BELOW ELEV. OF EXISTING DISCHARGE.



2 ROWS, 3/4" DIA. HOLES
@ 12" ALT. SPACING

PA
EBS 3-10-00

LT TONY CR. $\frac{1}{2}$ "
3/1/07 7/17/00

LT-36

SAPS #2 - TRADITIONAL SYSTEM.

12" MAIN & 6" DIA. LATERALS, FLOW = 120 gpm
(0.27 cfs)

SIZING, LAYOUT & PERFORATIONS NOT CRITICAL TO HANDLE
INFLOW. SIZE SYSTEM FOR FLUSHING.

12" DIA PVC PIPE @ 1% GRADE = 4.2 cfs.

6" TO BE PERFORATED W/ $\frac{3}{4}$ " HOLES, 9 WITH 4' HEAD
= 0.030 cfs

$$4.2 \text{ cfs} \div 0.03 \text{ cfs/hole} = 140 \text{ HOLES}$$

~~W/ 111 FT PIPE @ 8' SPACING~~

PA LT. TOBY CR. 4/2
 EES. 3-15-00 GLM 7/17/00 LT-36
 ACTUAL SIZE OF PONDS 1 2
 (AFTER CAD WORK).

"UPFLOW" SAPS

AREA BOTTOM 7680 s.f. = 96' x 80' EL. 1607.0

AREA TOP ROCK (3' LAYER) = 9936 s.f. = 108' x 92'

$$\text{VOL. ROCK} = \frac{7680 + 9936}{2} \times 3 = 26,424 \text{ c.f.} = 978.7 \text{ c.y.} \\ \times 1.6 \text{ T/c.y.} = \underline{1566 \text{ TONS.}}$$

SETTLING BASIN #1

AREA BOTTOM = 4034 s.f. @ EL. 1606.0

2.0' FREEBOARD w/ top of dam = 1614.0

W.L. @ 1612.0, AREA = 7620 s.f.

AREA POND @ 1610.0 = 6425 s.f.

AREA POND @ 1608.0 = 5230 s.f.

VOL. STORAGE IN UPPER 4' OF BASIN =

$$(1608 \text{ TO } 1612) \text{ VOL.} = \frac{5230 + 7620}{2} \times 4 = 25,700 \text{ c.f.}$$

$$@ 95 \text{ gpm} \times 1 \text{ c.f.} / 7.48 \text{ gal} \times 60 \text{ min.}, \text{ FLOW} = 762 \text{ c.f.} / \text{hr.}$$

$$25,700 \text{ c.f.} \div 762 \text{ c.f.} / \text{hr.} = \underline{34 \text{ HRS. DETENTION}}$$

PA. LT. T&B (R. $\frac{1}{5}$
 EES 5/00 6LM 7/17/00 LT-36
 SIZING OF PANDS - FINAL 2 2
REGULAR SAPS. (AFTER CAD WORK)

BOTTOM @ EL. 1604 AREA = 8,000 s.f. (80' x 100')

AREA @ EL. 1610.0 (W.L.) = 12,896 s.f.

AREA @ EL. 1607.5 (TOP 3.5' layer of rock.)
 = 10,716 s.f.

VOL. ROCK = $\frac{8,000 + 10,716}{2} \times 3.5' \div 27 = 1213.1 \text{ C.Y.}$

$\times 1.6 \text{ T/CY (\#1 STONE)} = 1941 \text{ TONS}$

0.5' COMPOST (1608.0) = $5,163 \text{ C.F.} \div 27 = 202 \text{ C.Y.}$

SETTLING BASIN #2

BOTTOM @ EL. 1594 AREA = 4,572.1 s.f.

AREA @ EL. 1600 = 9,219.2 s.f.

AREA @ W.L., EL. 1598.5 (TOP @ 1600.0 w/ 1.5 FB.)
 = 8,057.4 s.f.

VOL. STORAGE = $\frac{8,057.4 + 4,572.1}{2} \times 4.5 = 28,416 \text{ cf.}$

W/ FLOW @ 762 C.F./HR. (SAME AS S.B. #1)

DETENTION TIME = $28,416 \div 762 = 37.3 \text{ HR.}$

TOTAL AASHTO #1 = 1566 T
 1941 T

3507 TON $\Rightarrow$ USE 3500 TONS

LT-36 - CUBITAINER TESTS

4 HR. 180 PARTS ALK.

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