MEMORANDUM

Date:	November 10, 2011
To:	Water Right File 96-8838
From:	cpalmer
Re:	Licensing Memo

This right was permitted with three point of diversion. The permit was to cover the following wells:
Well #1-aka as the lower well and is covered by 96-8618
Well#2-aka as the upper well and is covered by 96-8619
Well #3-(D0013648) a well that was drilled in 1994

It seems that the wells have been largely unreliable so new wells were drilled as follows:

Well #4-(D0028082) this well is not currently associated with a water right, this well was completed after proof was filed for 96-8838
Well #5-(D0028084)

The field examiner found that Wells #3 and #5 are associated with 96-8838 and recommended that right 96-8838 include those two wells with a diversion rate of 0.11 cfs. He took the measurement from flow meters but I think that the diversion rate should be licensed for the full permitted rate of 0.15 cfs based on hp equation calculations:
Hp equation: 8.8 x hp x 0.7/depth to water + pressure
~Depth to water is collected from well drillers report
~Pressure = elev. from well to bottom of water tank x 0.433 or 500 x 0.433 = 216.5

Well #3: 8.8 x 5 x 0.7/50 + (216.5) = 0.11 cfs
Well #5: 8.8 x 5 x 0.7/10 + (216.5) = 0.14 cfs

(this assumes that the storage tank is empty resulting in the water not being pumped against further head)

Basing my recommendation on the hp equation is somewhat problematic because of the large gap in diversion rates. The field examiner determined that both wells are only pumping 0.11 cfs altogether. Even if there is always water in the storage tank and there is another 20ft of head, the theoretical diversion rate does not change much from the total estimate of 0.25 cfs. I don't think the discrepancy warrants a new field exam since the permitted rate of 0.15 cfs is close to the field examiners recommendation and I feel confident that the two wells can at least produce 0.15 cfs.

Overlapping rights at Sourdough Point:
96-8618-0.11 cfs, 20.40 af, and 34 homes
96-8619-0.13 cfs, 20.40 af, and 34 homes
96-9299-permit, proof has not filed on the permit yet, not relevant to this license

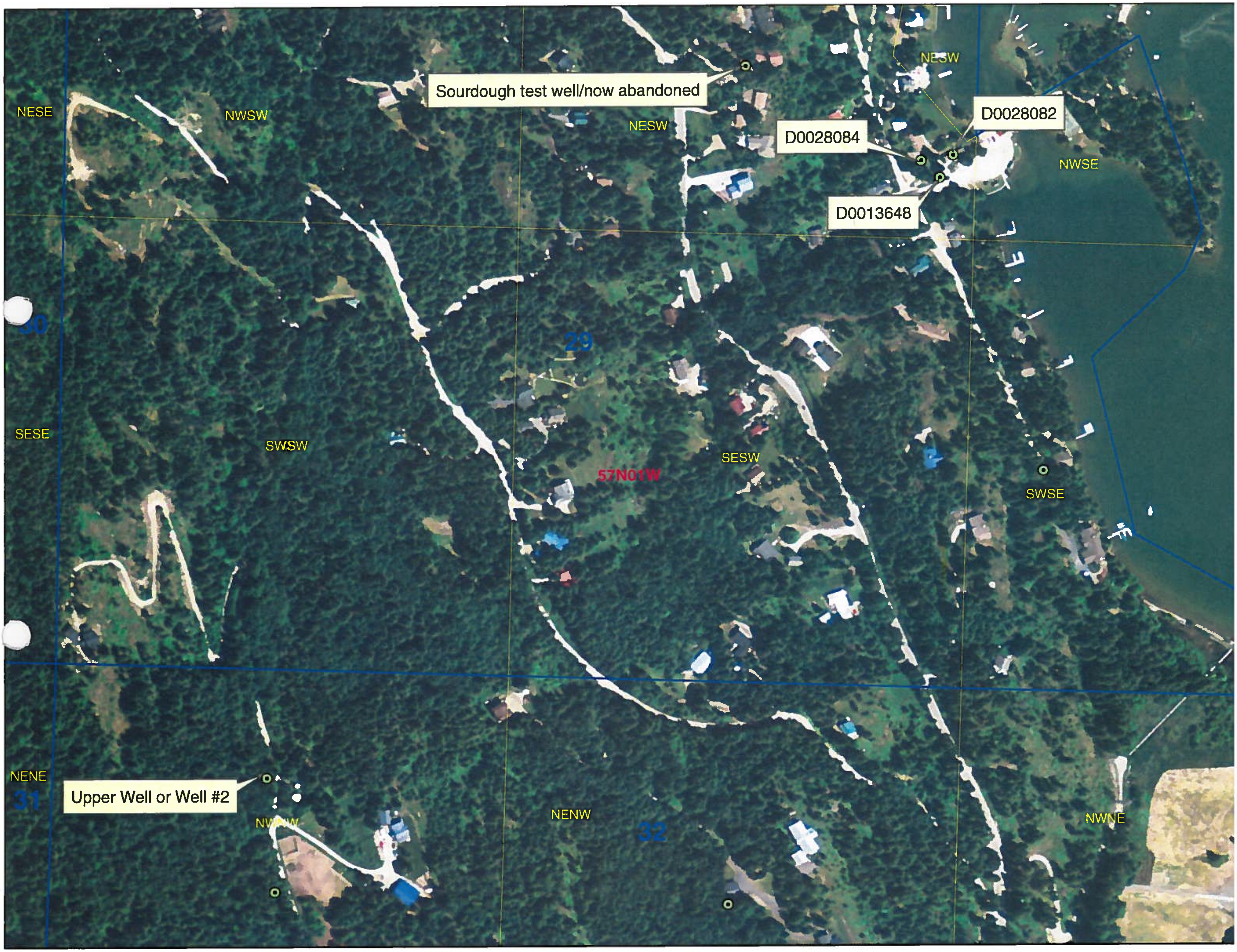
Currently 68 homes are covered by 0.24 cfs and 40.8 af. According to the attached engineering report there are 105 lots total at Sourdough Point. While this right was permitted for 88 lots, there is obviously an overlap between all rights. All rights when combined shall be limited to 105 lots total.

Domestic volume calculation: 105 lots total x 0.6 af - 68 already licensed @ 0.6 af = 22.2 af

Irrigation: it appears that the field examiner is in favor of granting the full 22 acres of irrigation under this right. The exact location of the 22 acres is unknown and I agree with the field examiner that this right should be changed to municipal use so an exact location is not necessary. The volume under irrigation will be:

0.15 cfs x 214 days x 1.9835 = 63.7 af
22 acres x 3 = 66 af

22.2 af under domestic use + 63.7 for irrigation = 86 af total


Sourdough test well/now abandoned
NESE
NWSW
NESW
NESW
D0028084
D0028082
NWSE
D0013648
30
29
SESE
SWSW
57N01W
SESW
SWSE
NENE
31
Upper Well or Well #2
NWNW
NENW
32
NWNE

Form 238-7
1/78

POSTED

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

USE TYPEWRITER OR
BALLPOINT PEN

qb Well #1

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Sourdough Home Owners Ass.
Address Box 29 Sandpoint Id. 83864
Owner's Permit No. 96-82-N-103

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) ______

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other ______ (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other ______

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other ______

Thickness		Diameter		From		To	
.250	inches	6	inches +	2	feet	31	feet
	inches		inches		feet		feet
	inches		inches		feet		feet
	inches		inches		feet		feet

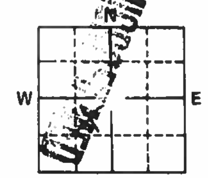
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ______ inches by ______ inches

Number		From		To	
	perforations		feet		feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name ______
Type ______ Model No. ______
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel ______
Placed from ______ feet to ______ feet
Surface seal depth 20 Material used in seal: ☐ Cement grout ☒ Puddling clay ☒ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port ______

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name ______
______
Lot No. ______ Block No. ______

County Bonner
NE ¼ SW ¼ Sec. 29, T. 57 [✓ N]/S, R. 1 E/[✓ W].

7. WATER LEVEL

Static water level 40 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow ______
Artesian closed-in pressure ______ p.s.i.
Controlled by: ☐ Valve ☒ Cap ☐ Plug
Temperature cold °F. Quality Excellent

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other ______

Discharge G.P.M.	Pumping Level	Hours Pumped
25	—	1 hr

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	8	Gravel		X
	8	20	Clay		X
	20	26	Boulders		X
	26	31	Shale		X
6	31	100	Shale	X	

004660

RECEIVED

RECEIVED OCT 1 1982
Department of Water Resources
Northern District Office

10.

Work started 9/23/82 finished 9/24/82

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Associated Well Drillers Inc Firm No. 245
Address Box 723 C.DA Date 9/27/82
Signed by (Firm Official) Bud Thornton
and
(Operator) Robert F Degitz

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
1/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER O
BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

N

1. WELL OWNER

Name Sourdough Owners assn.
Address Sandpoint Idaho
Owner's Permit No. 96-81-N-122-1

2. NATURE OF WORK

☐ New well ☒ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other ____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☐ Other

Thickness		Diameter		From		To	
	inches		inches +		feet		feet
	inches		inches		feet		feet
	inches		inches		feet		feet
	inches		inches		feet		feet

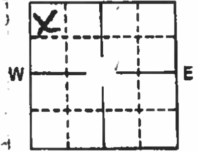
Was casing drive shoe used? ☐ Yes ☐ No
Was a packer or seal used? ☐ Yes ☐ No
Perforated? ☐ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ____ inches by ____ inches

Number		From		To	
	perforations		feet		feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name
Type ____ Model No.
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel
Placed from ____ feet to ____ feet
Surface seal depth ____ Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name
Lot No. ____ Block No. ____

County Bonner
NW ¼ NW ¼ Sec. 32, T. 57 [✓ N]/S, R. 1 E/[✓ W]

7. WATER LEVEL

Static water level 250 feet below land surface.
Flowing? ☐ Yes ☐ No G.P.M. flow
Artesian closed-in pressure ____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature 50 °F. Quality good

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
20	air test	

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	377	427	Shale rock	✓	

RECEIVED
MAY 18 1981
Department of Water Resources
02118[illegible]

RECEIVED
MAY 12 1981
Department of Water Resources
Northern District Office

10. Work started 5-5-81 finished 5-5-81

11. DRILLERS CERTIFICATION cb dL

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Intermountain Drilling & Dev. Firm No. 252
Address Rt 1 Box [illegible] Priest River Date 5-11-81
Signed by (Firm Official) Norman D. [illegible]
and
(Operator) Norman D. [illegible]

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
1/94

Well #3

POSTED

OFFICE USE ONLY
Inspected by TDK
Twp. 57N Rge. 1W Sec. 29
1/4 NE 1/4 SW 1/4

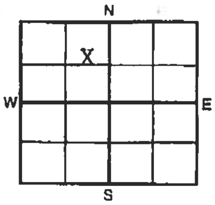
Use Typewriter or Ball Point Pen

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. DRILLING PERMIT NO. 96 - 94 - N - 277 -
Other IDWR No. WR 96-08838

2. OWNER:
Name SOURDOUGH POINT OWNERS ASSOC
Address PO BOX 29
City SANDPOINT State ID Zip 83864

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.



Twp. 57 North ☒ or South ☐
Rge. 01 East ☐ or West ☒
Sec. 29, ____ 1/4 NE 1/4 SW 1/4
10 acres 40 acres 160 acres
Gov't Lot ____ County Bonner

Address of Well Site ____
City ____
(Give at least name of road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	19	10 sacks	Crumbles

Was drive shoe used? Y ☒ N ☐
Was drive shoe seal tested? Y ☐ N ☒ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+1½	18½	250	Steel	☒	☐	☒	☐
4"	-4	145	160	PVC	☐	☒	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☒ Perforations Method Saw Cut
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
105	145	1/16	60	4"	PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
50 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices:
NESW 29 57N 1W

11. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
10 GPM			2 Hrs

Water Temp. Cold Bottom hole temp. ____
Water Quality test or comments: Clean

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
10	0	1	TOP SOIL BROWN SOFT		X
10	1	10	GRAVELS CLAYS COARSE SANDS		
			BROWNISH SOFT		X
10	10	12	COBBLES COARSE SAND DARK		
			BROWN MED HARD		X
10	12	15	SHALE BLACKISH BROKEN		X
10	15	19	SHALE BLACKISH MED HARD		X
6	19	44	SHALE BLACKISH MED HARD		X
6	44	48	SHALE BLACKISH FRACTURED	X	
6	48	52	SHALE BLACKISH MED		X
6	52	61	SHALE BLACKISH GREEN MED		X
6	61	64	SHALE BLACKISH GREEN FRACTURED		X
6	64	76	SHALE GREENISH BLACK MED		X
6	76	81	SHALE GREENISH BLACK FRACTURED		X
6	81	83	SHALE BLACKISH GRAY MED		X
6	83	90	SHALE W/CLAY LENSE GREENISH		
			BLACK SOFT		X
6	90	96	SHALE GREENISH BLACK MED		X
6	96	104	SHALE GREENISH FRACTURED		X
6	104	117	SHALE GREENISH MED		X
6	117	120	SHALE W/CLAY LENSE GREENISH		
			SOFT	X	
6	120	145	SHALE W/GRANITE GREENISH		
			BLACK & WHITE SOFT BROKEN	X	

RECEIVED
SEP 6 1994
NORTHERN REGION
IDWR

MICROFILMED
DEC 2 9 1998

Completed Depth 145' (Measurable)
Date: Started 08/22/94 Completed 08/22/94

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name H2O WELL SERVICE INC Firm No. 448

Firm Official ____ Date 9-1-94
and
Supervisor or Operator Mark L. Lee Date 8/30/94
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Well #4 (not associated w/ [illegible] WR)
(completed after proof was file for 96-8838)

Form 238-7
11/97

7/8/03

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

OFFICE USE ONLY
Insepcted by
Twp ____ 1/4 Rge. ____ 1/4 Sec ____ 1/4
Lat. : : Long : :

1. WELL TAG NO. D 0028082
DRILLING PERMIT NO. 96-08838
Other IDWR No. ~~804364~~

2. OWNER
Name SOURDOUGH POINT
Address P.O.BOX 29
City SANDPOINT State ID Zip 83864

POSTED

3. LOCATION OF WELL by legal description
Sketch map location must agree with written location.

N

W					E
	○	●	○	○	
	○	○	○	○	
	○	○	○	○	
	○	○	○	○	

S

Twp. 57 North ● or South ○
Rge. 1 East ○ or West ●
Sec. 29 NE 1/4 NW 1/4 ____ 1/4
Gov't Lot ____ County BONNER
Lat. : :
Long : :

Address of Well Sourdough Point Home Owners Common Area
(Give at least name of road + Distance to Road or Landmark)
City ____

Lt. ____ Blk. ____ Sub. Name ____

4. Use
○Domestic ●Municipal ○Monitor ○Irrigation
○Thermal ○Injection ○Other ____

5. TYPEOF WORK check all that apply (Replacement etc.)
●New Well ○ Modify ○Abandonment ○Other ____

6. DRILL METHOD
●Air Rotary ○Cable Tool ○Mud Rotary ○Other ____

7. SEALING PROCEDURES

SEAL / FILTER PACK			AMOUNT	Method
Material	From	To	Sacks or pounds	
Bentonite Slurry	0	30	6 sacks	Temp. Surface Casing

Was drive shoe used? ● Y ○ N Shoe Depths(s) 200'
Was drive shoe seal tested? ○ Y ● N How? ____

8. Casing / Liner

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+2	156	.250	STEEL	●	○	●	○
					○	○	○	○
					○	○	○	○
					○	○	○	○

Length of Headpipe N/A Length of Tailpipe N/A

9. PERFORATIONS / SCREENS
Perforations Method Star Perforator
Screens Screen Type N/A

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
80	110	1/8*1	900	6"	STEEL	●	○
125	150	1/8*1	200	6"	STEEL	●	○
						○	○

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE
10 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____

57N, 1W 29

11. WELL TESTS
○Pump ○Bailer ●Air ○Flowing

Yield Gal. / Min.	Drawdown	Pumping Level	Time
9		225	1 hour

Water Temp. 50 Bottom Hole Temp. ____
Water Quality test or comments: Clear
Depth first Water 25

12. LITHOLOGIC LOG: (Describe repairs or abandoment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
10	0	25	SILTY CLAY	☑	☐
8	25	53	SILTY CLAY	☑	☐
8	53	94	SHALE - SOFT GRAY	☐	☑
8	94	97	SHALE - GRAY WATER	☑	☐
8	97	105	SHALE - SOFT GRAY	☐	☑
8	105	110	SHALE - GRAY WATER	☑	☐
8	110	133	SHALE - SOFT GRAY	☐	☑
8	133	163	GRANITE - GRAY MEDIUM	☐	☑
8	163	170	GRANITE GRAY FRAC - WATER	☑	☐
8	170	186	GRANITE - GRAY MEDIUM	☐	☑
8	186	225	GRANITE GRAY FRAC	☑	☐

RECEIVED
JUN 19 2003
IDWR North

Completed Depth 225' (Measurable)
Date Started 3-10-03 Completed 6-10-03

13. DRILLER'S CERTIFICATION
I/we certify that all minimum well construction standards were complelied with at the time the rig was removed.
Company Name Intermountain Drilling Firm No. 513

Firm Official Glen Frachiseur Date 6-16-03
and
Driller or Operator ____ Date ____
(Sign once if Firm Official & operator)

Well #5

Form 238-7
11/97

7/8/03 db

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

OFFICE USE ONLY
Insepcted by
Twp ____ Rge. ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat. : : Long : :

TK

1. WELL TAG NO. D 0028084
DRILLING PERMIT NO. 96-08838
Other IDWR No. 795173

POSTED

2. OWNER

Name SOURDOUGH POINT
Address P.O.BOX 29
City SANDPOINT State ID Zip 83864

3. LOCATION OF WELL by legal description
Sketch map location must agree with written location.

N

○	●	○	○
○	○	○	○
○	○	○	○
○	○	○	○

W E
S

Twp. 57 North ● or South ○
Rge. 1 East ○ or West ●
Sec. 29 NE 1/4 NW 1/4 ____ 1/4
10 acres 40 acres 160 acres
Gov't Lot ____ County Bonner
Lat. : :
Long : :

Address of Well Point Home Owners Common Area
(Give at least name of road + Distance to Road or Landmark)
City Soughdough

Lt. ____ Blk. ____ Sub. Name ____

4. Use
○Domestic ●Municipal ○Monitor ○Irrigation
○Thermal ○Injection ○Other ____

5. TYPEOF WORK check all that apply (Replacement etc.)
●New Well ○ Modify ○Abandonment ○Other ____

6. DRILL METHOD
●Air Rotary ○Cable Tool ○Mud Rotary ○Other ____

7. SEALING PROCEDURES

SEAL / FILTER PACK			AMOUNT	Method
Material	From	To	Sacks or pounds	
Bentonite Slurry	0	60	6 sacks	Temp.
				Surface
				Casing

Was drive shoe used? ● Y ○ N Shoe Depths(s) 156
Was drive shoe seal tested? ○ Y ● N How?

8. Casing / Liner

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	200	.250	STEEL	●	○	●	○
					○	○	○	○
					○	○	○	○
					○	○	○	○

Length of Headpipe N/A Length of Tailpipe N/A

9. PERFORATIONS / SCREENS
Perforations Method Star Perforator
Screens Screen Type N/A

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
80	110	1/8*1	900	6"	STEEL	●	○
150	175	1/8*1	600	6"	STEEL	●	○
						○	○

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE
10 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____

57N 1W 29

11. WELL TESTS
○Pump ○Bailer ●Air ○Flowing

Yield Gal. / Min.	Drawdown	Pumping Level	Time
20	78	200	4 hours

Water Temp. 50 Bottom Hole Temp. ____
Water Quailty test or comments: Clear
Depth first Water 4

12. LITHOLOGIC LOG: (Describe repairs or abandoment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
10	0	10	SILTY CLAY	✓	
8	10	20	SILTY CLAY	✓	
8	20	100	SHALE - SOFT GRAY		✓
8	100	122	SHALE - GRAY WATER	✓	
8	122	171	GRANITE - GRAY MED		✓
8	171	200	GRANITE - GRAY - FRAC	✓	

RECEIVED
JUN 19 2003
IDWR North

Completed Depth 200' (Measurable)
Date Started 3-12-03 Completed 3-13-03

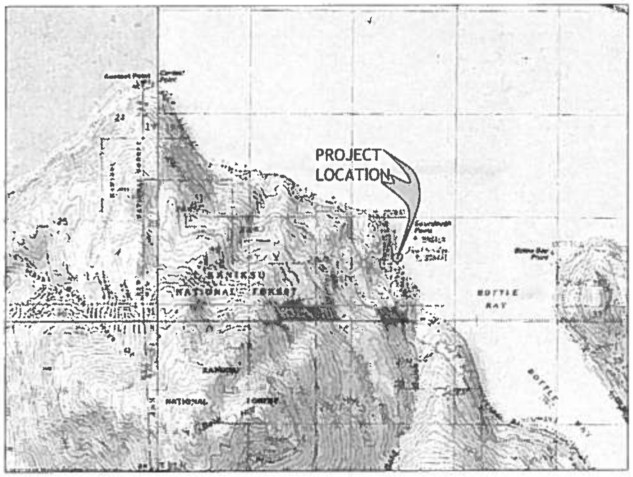
13. DRILLER'S CERTIFICATION
I/we certify that all minimum well construction standards were complelied with at the time the rig was removed.
Company Name Intermountain Drilling Firm No. 513
Firm Official Glen Frachiseur Date 6-16-03
and
Driller or Operator ____ Date ____
(Sign once if Firm Official & operator)

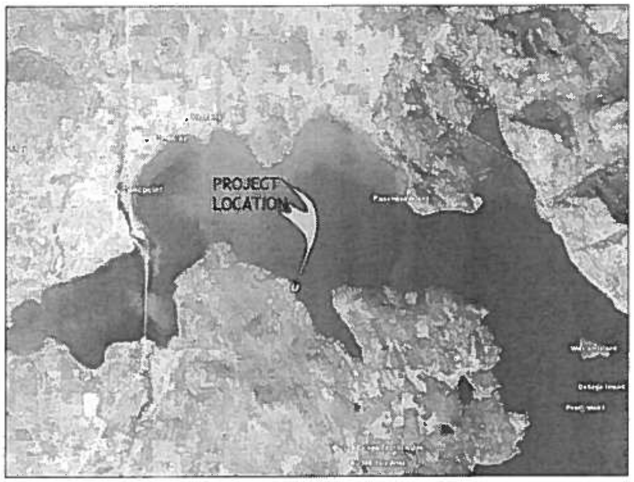
Supplemental Info. for Licensing 96-8838

-pulled from www.tate-engineering.com 11-10-11

Sourdough Point Homeowners Association
Water Treatment Facility

TWP 57 N, R 01 W, SECTIONS 29 & 32
Bonner County, Idaho





OWNER

Sourdough Point Owners Association
P.O. Box 29
Sandpoint, ID 83864

ENGINEER

TATE
ENGINEERING INC.
1103 N. 4th Street Coeur d' Alene
Idaho, 83814 (208)676-8708
Fax: (208)667-2129
E-mail: rtate@tate-eng.com

NOTE

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG
1-800-626-4950

INDEX OF SHEETS

1. Title
2. Notes
3. Existing System Overview
4. Existing Site Overview
5. Proposed Site Overview
6. Filter Building Layout
7. Filter Building Cross Sections
8. Water Line Cross Sections
9. Raw Water Lake Intake
9A. Raw Water Lake Intake Profiles
10. Details
11. Details
12. Details

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Tate Engineering

8/4/2008 7:21 AM

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GENERAL NOTES

1. All work shall conform to the "Idaho Standards for Public Works Construction" current edition.
2. The Contractor shall notify the appropriate utility company prior to starting work near any facilities and shall coordinate his work with company representatives. All utility services shall be installed underground. For existing utility locations, contact CALL BEFORE YOU DIG at 1-800-626-4950 at least 48 hours prior to starting any excavations.
3. Work shall not begin until a Permit and Notice to Proceed is issued by the Design Engineer and IDEQ.
4. The Contractor shall notify the Design Engineering Inspector 48 hours prior to starting work.
5. The Contractor shall have an approved set of improvement plans on the job site at all times.
6. Concrete shall be portland concrete cement with a minimum 28 day compressive strength of 3000 psi.
7. All underground utility laterals shall be installed and approved before construction of curbs, cross gutter, or surfacing of the streets.
8. Where trenches are within public easements, compaction test results shall be submitted to the Engineer of Record.
9. All operations conducted on the premises, including the warming up, repair, arrival, departure or running of trucks, earthmoving equipment, construction equipment and any other associated equipment shall generally BE limited to the period between 6:00 a.m. and 10:00 p.m. everyday unless otherwise approved by SPOA.
10. All existing improvements including curb and gutter, sidewalks, asphalt, concrete or P.C.C. paving, which are being joined or matched in connection with this project, shall be joined or matched in a manner satisfactory to the Design Engineer, including necessary sawcutting, removal, replacement and capping.
11. No revisions shall be made to these plans without the approval of the Design Engineer.

WATER SYSTEM NOTES

1. The minimum water service shall be one (1) inch.
2. Water mains shall be AWWA C-900 pipe (DR-18), and shall be constructed with the top of the pipe at a minimum of 60 inches below finish grade except where otherwise indicted with specific elevations and approved by the Design Engineer.
3. No disruption of existing water services while making connection to existing mains shall be allowed without specific approval from the SPOA. All affected properties must be notified at least 48 hours prior to shut-off. Failure to comply with noticing or other requirements could result in a stop-work notice, fines, and/or other penalties.
4. No connections for the purpose of obtaining water supply during construction shall be made without first obtaining approval from the SPOA.
5. The existence and location of water facilities shown on the plans were obtained by a search of available SPOA records. Location and elevation of existing water facilities shall be confirmed by field measurements and excavation exploration by the contractor prior to beginning of new work. This will allow time to permit revision of plans, as necessary, because of conflicts with other facilities.
6. The Design Engineering Inspector shall be notified at least 48 hours prior to any inspection.
7. All fittings or appurtenances removed from the water lines shall be returned by the contractor to the SPOA.
8. All water mains, valves, fire hydrants, services, and appurtenances shall be returned by the contractor to the SPOA.
9. All water mains shall be tested in accordance with SPOA requirements. Hydrostatic testing shall be witnessed by the design engineer. Results of chlorination and bacteria tests shall be submitted to the design engineer for approval.

DESIGN CRITERIA BROKEN DOWN

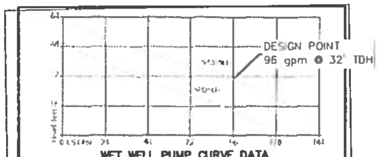
Ultimate SPOA Lot Build-Out	105 Lots
Design Flow Used per Connection	800 gallons Domestic/Day 700 gallons Irrigation/Day
Total	1,500 gallons/Connection/Day
Current Lots	58
Flows needed to meet Design Requirements	60.4 gpm
Gallons per Day to Meet Design Requirements	87,000
XP-6/12 Unit Capacity	7.2 gpm/Module
Each Unit @ 6 Modules	43.2 gpm
Both Units Combined @ 6 Modules	86.4 gpm
Total gallons per Day	124,416 gallons
(2) XP-6/12 Units Lot Capacity (6 Modules Each)	82.9 Lots
Build-Out Capacity Needed	109.3 gpm
Build-Out Gallons per Day Needed	157,500 gallons
XP-6/12 Expandable Capacity	172.8 gpm
XP-6/12 Total Daily Capacity	248,832 gallons

Table 6: Key Elevations

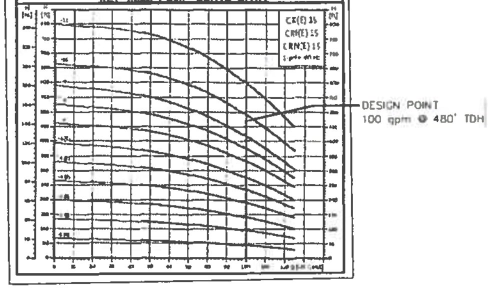
Intake Structure	EL 2032.00
Intake Pump Centerline	EL 2046.00
Low Lake Water Level	EL 2050.00
High Lake Water Level	EL 2062.00
100 Year Flood Plain Elevation	EL 2071.00
Filter Building Finished Floor	EL 2071.33
Pumping Chamber Pit finished Floor	EL 2062.23
Distribution Pump – Center of Intake	EL 2062.93
Bottom Curtain Drain	EL 2060.15
Bottom Wet Well Floor Elevation	EL 2045.84
Bottom 6-inch Raw Water Inlet at Wet Well	EL 2047.84
Distribution Reservoir	EL 2566

Table 9- Design Criteria for the Memcor XP Membrane System

Design Connection	105
Filtration Rate	7.2 gpm per module
Proposed Withdrawal Rate	100 gpm
Chlorine Dose	0.5 mg/L
Contact Time Required	0.5 log removal/inactivation



WET WELL PUMP CURVE DATA



DISTRIBUTION PUMP CURVE DATA

Sourdough Point Owners Association
Bonner County
Notes

PROJECT: 08.005
DRAWING:
DESIGN BY: BLC
DRAWN BY: DPS
CHK. BY: RMT
LAST EDIT DATE: 7/20/06

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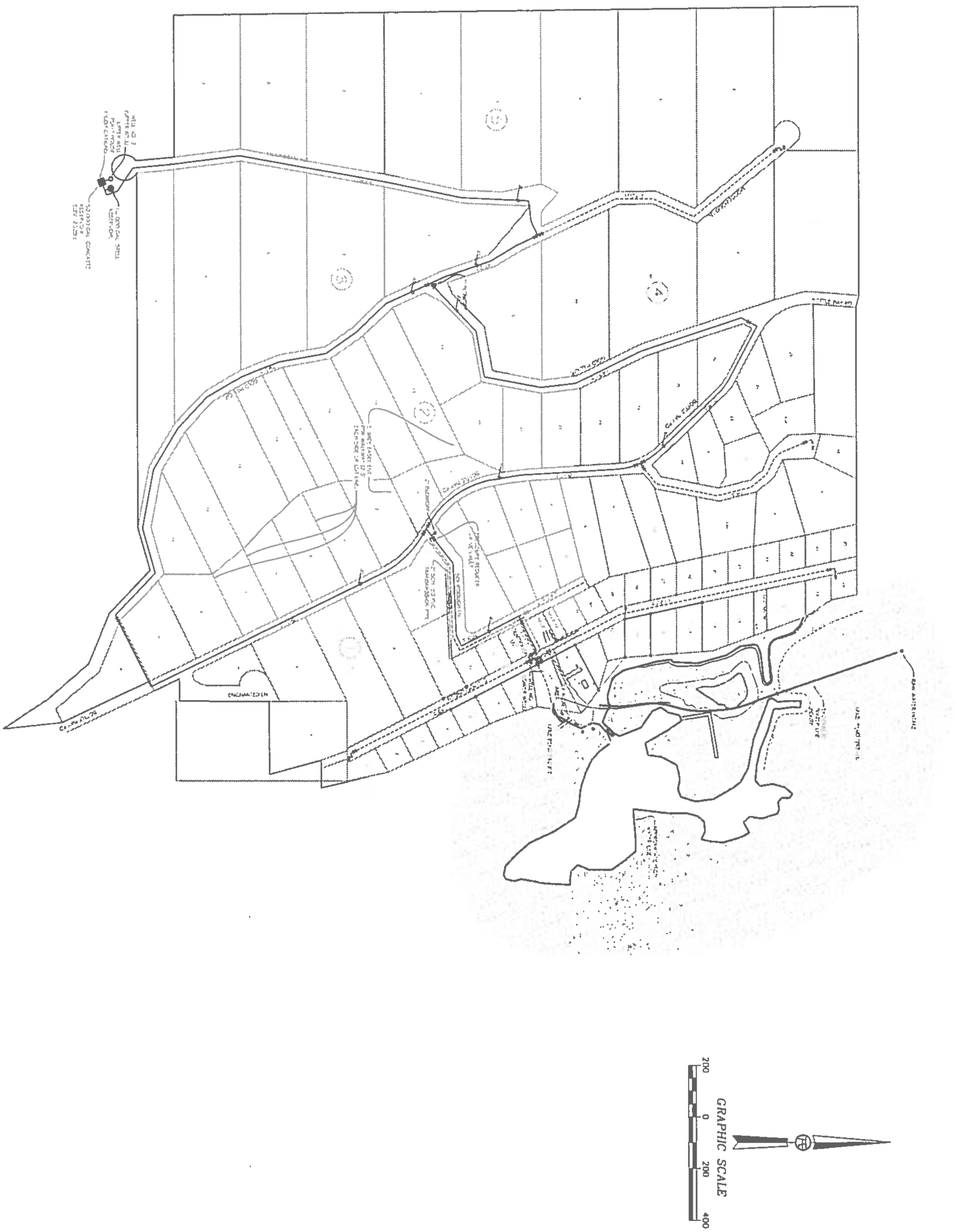
E-MAIL: tate@tate-eng.com



SHEET 3 OF 13	**TATE ENGINEERING** 1103 N. 4th Street Coeur d' Alene Idaho, 83814 (208)676-8708 FAX: (208)667-2129 E-MAIL: rtate@tate-eng.com	**REUSE OF DRAWINGS** THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF TATE ENGINEERING, Inc. AND IS NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF TATE ENGINEERING, Inc.	PROJECT: Tate # DRAWING: DESIGN BY: DRAWN BY: CHK. BY: LAST EDIT DATE: 7/29/08

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Sourdough Point Owners Association
Bonner County
Existing System Overview

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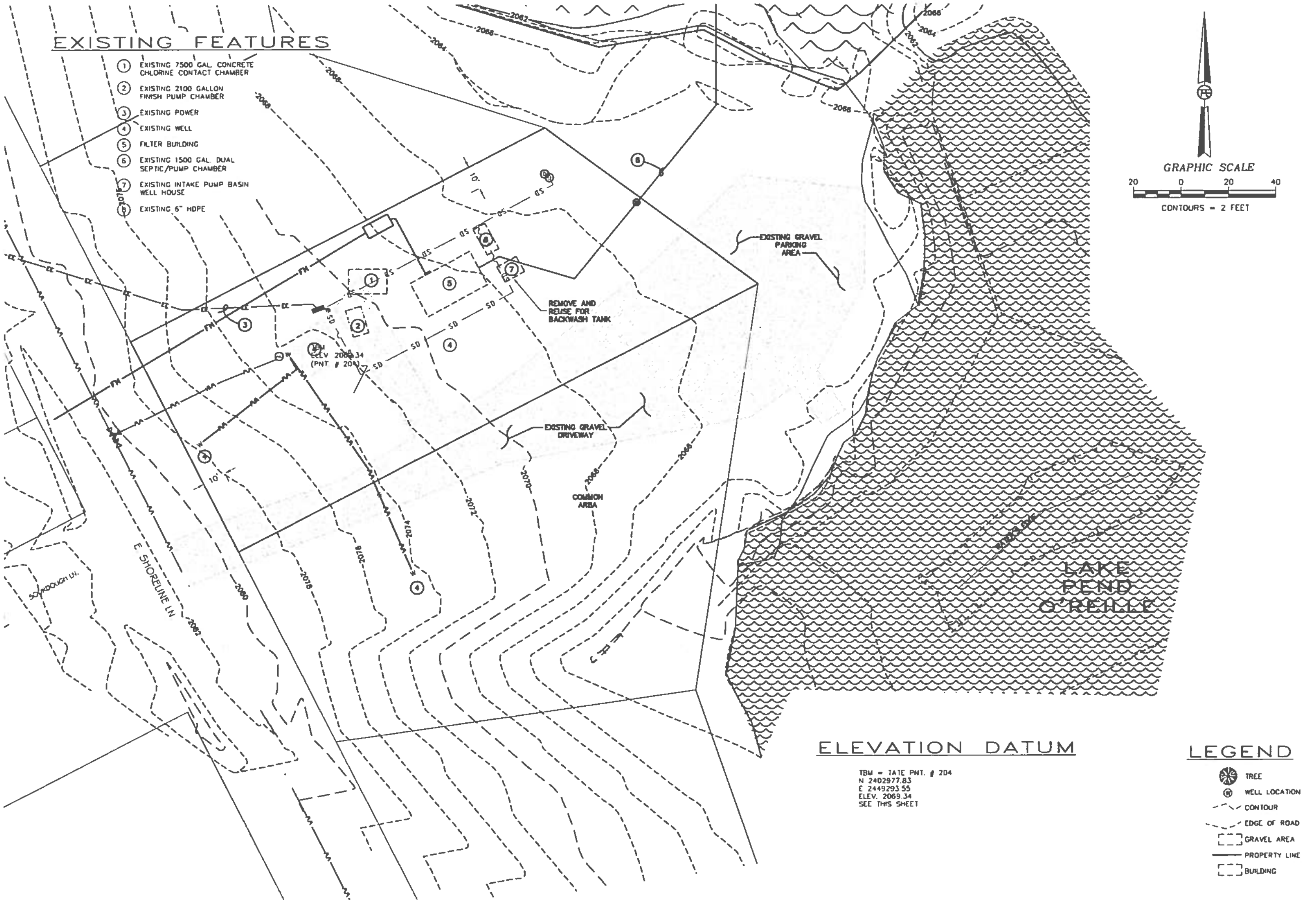

EXISTING FEATURES

① EXISTING 7500 GAL. CONCRETE CHLORINE CONTACT CHAMBER
② EXISTING 2100 GALLON FINISH PUMP CHAMBER
③ EXISTING POWER
④ EXISTING WELL
⑤ FILTER BUILDING
⑥ EXISTING 1500 GAL. DUAL SEPTIC/PUMP CHAMBER
⑦ EXISTING INTAKE PUMP BASIN WELL HOUSE
⑧ EXISTING 6" HDPE

ELEVATION DATUM

TBM = TATE PNT. # 204
N 2402977.83
E 2449293.55
ELEV. 2069.34
SEE THIS SHEET

LEGEND

✻	TREE
Ⓦ	WELL LOCATION
- - -	CONTOUR
- - -	EDGE OF ROAD
⬚	GRAVEL AREA
———	PROPERTY LINE
⬚	BUILDING

Sourdough Point Owners Association
Bonner County
Existing Site Overview

PROJECT: 08.005
DRAWING: 08005CON(7-30-08)
DESIGN BY:BLC
DRAWN BY:DPS
CHK. BY: RMT
LAST EDIT DATE: 7/30/08

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E-MAIL: tate@tate-eng.com

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4
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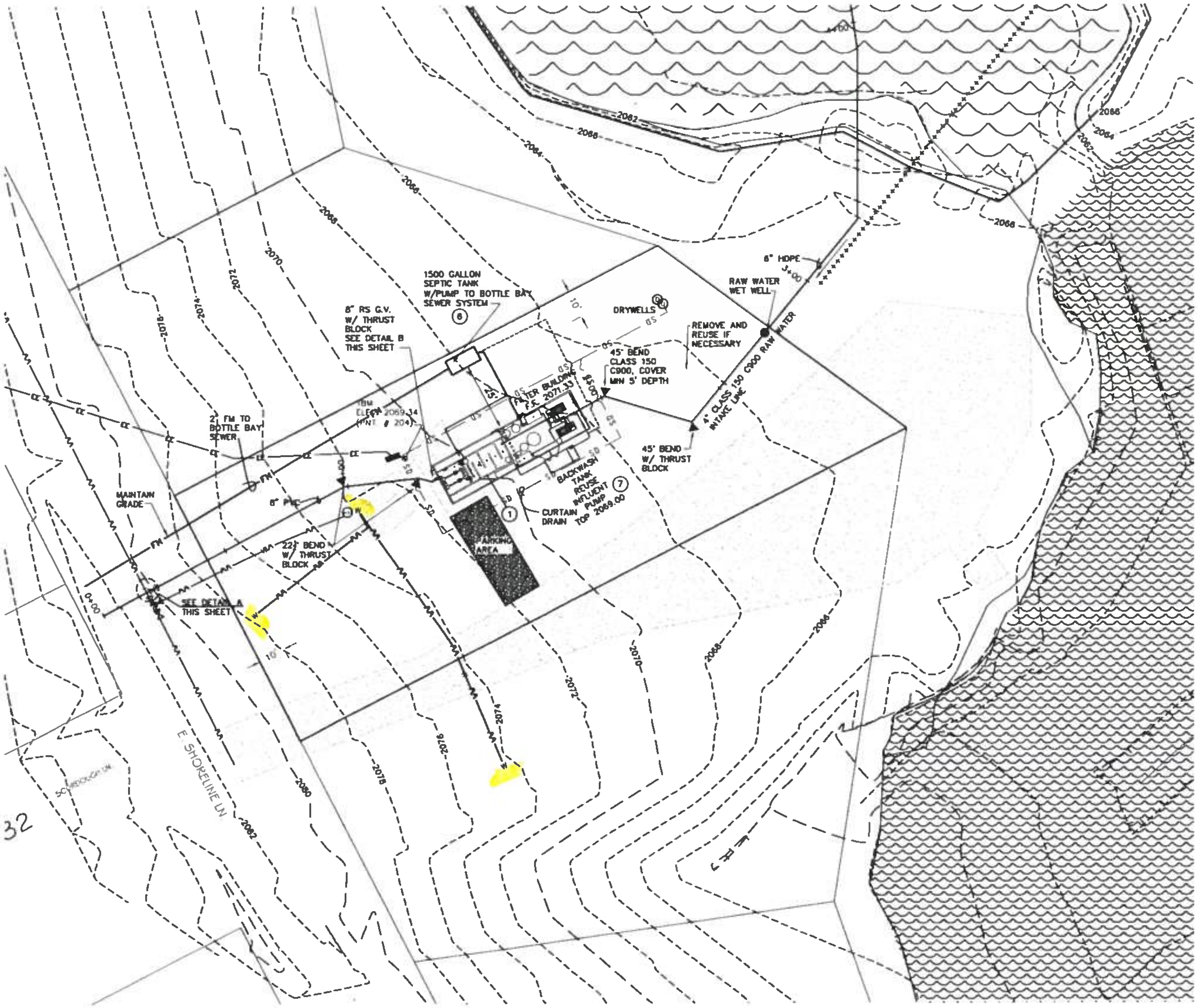
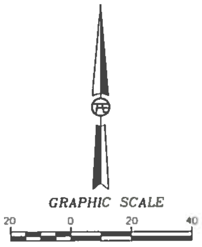
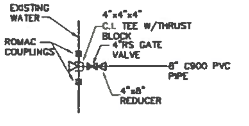
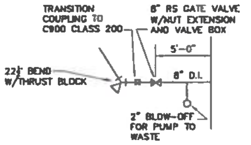




CONTOURS = 2 FEET



CONNECTION DETAIL A
NTS



CONNECTION DETAIL B
NTS

LEGEND

✲	TREE
Ⓦ	WELL LOCATION
- - -	CONTOUR
- - -	EDGE OF ROAD
⬚	GRAVEL AREA
——	PROPERTY LINE
⬚	BUILDING
—WW—	WATER - EXISTING
—W—	WATER - PROPOSED
—FM—	FORCE MAIN - PROPOSED
— SD —	CURTAIN DRAIN - PROPOSED

Sourdough Point Owners Association
Bonner County
Proposed Site Overview

PROJECT 08.005
DRAWING: 08005CON7-30-08
DESIGN BY: BLC
DRAWN BY: DPS
CHK. BY: RMT
LAST EDIT DATE: 7/30/08

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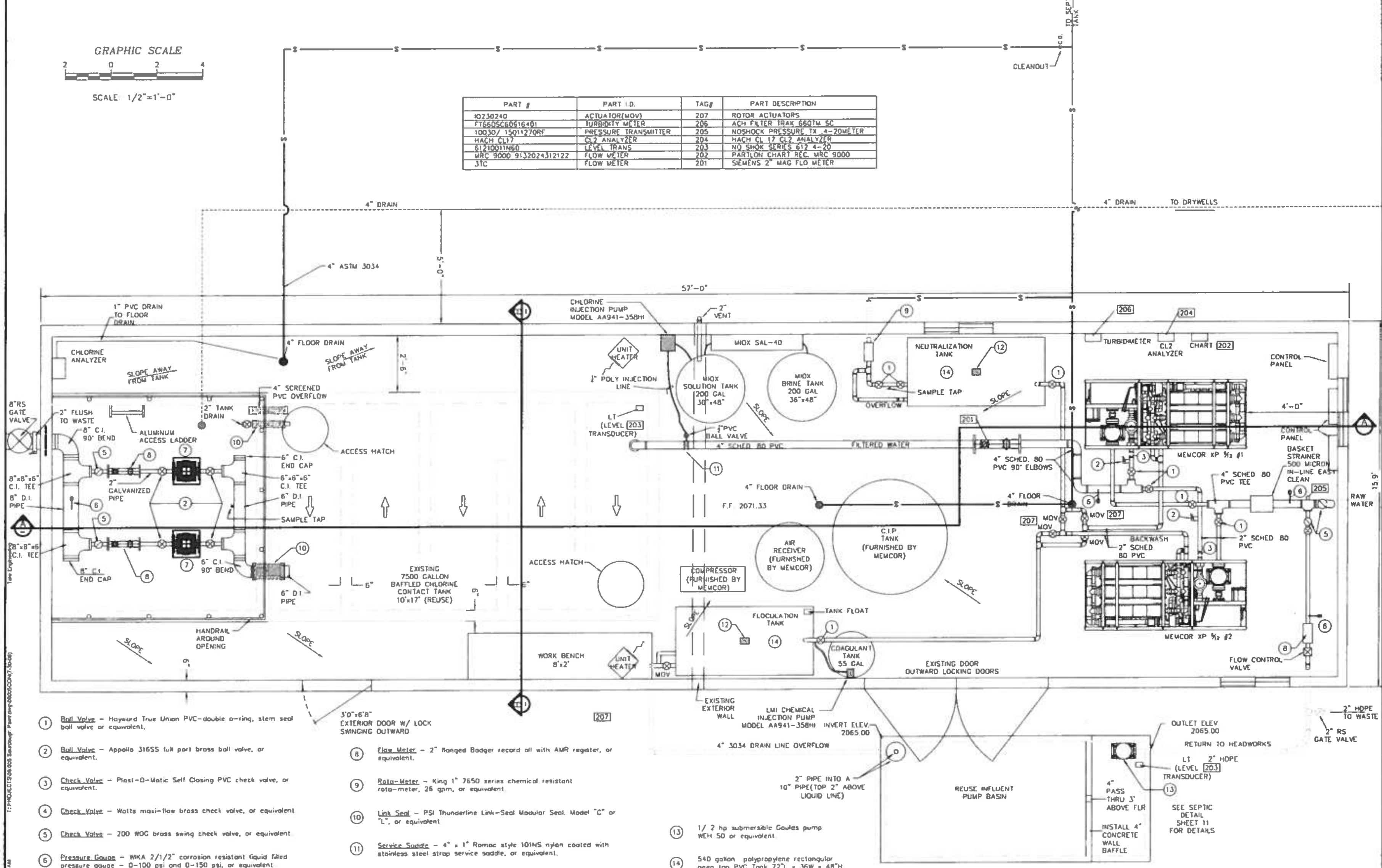

PART #	PART I.D.	TAG#	PART DESCRIPTION
10230240	ACTUATOR(MOV)	207	ROTOR ACTUATORS
FT660SC60616401	TURBIDITY METER	206	ACH FILTER TRAK 660TM SC
10030/ 15011270RF	PRESSURE TRANSMITTER	205	NOSHOCK PRESSURE TX .4-20METER
HACH CL17	CL2 ANALYZER	204	HACH CL 17 CL2 ANALYZER
61210011N60	LEVEL TRANS	203	NO SHOK SERIES 612 4-20
MRC 9000 9132024312122	FLOW METER	202	PARTLON CHART REC. MRC 9000
3TC	FLOW METER	201	SIEMENS 2" MAG FLO METER

① Ball Valve – Hayward True Union PVC–double o–ring, stem seal ball valve or equivalent.

② Ball Valve – Appollo 316SS full port brass ball valve, or equivalent.

③ Check Valve – Plast–O–Matic Self Closing PVC check valve, or equivalent.

④ Check Valve – Watts maxi–flow brass check valve, or equivalent

⑤ Check Valve – 200 WOG brass swing check valve, or equivalent

⑥ Pressure Gauge – WIKA 2/1/2" corrosion resistant liquid filled pressure gauge – 0–100 psi and 0–150 psi, or equivalent

⑦ Pumps – Grundfos CR 15–12 vertical multistage centrifugal or equivalent.

⑧ Flow Meter – 2" flanged Badger record all with AMR register, or equivalent.

⑨ Roto–Meter – King 1" 7650 series chemical resistant roto–meter, 26 gpm, or equivalent

⑩ Link Seal – PSI Thunderline Link–Seal Modular Seal. Model "C" or "L", or equivalent

⑪ Service Saddle – 4" x 1" Romac style 101NS nylon coated with stainless steel strap service saddle, or equivalent.

⑫ Tank Mixer – Cleveland Eastern Mixers, fixed mount closed tank direct drive FRH–C Series electric mixer, ¼ hp, or equivalent.

⑬ 1/ 2 hp submersible Goulds pump WEH 50 or equivalent

⑭ 540 gallon polypropylene rectangular open top PVC Tank 72"L x 36W x 48"H.

Sourdough Point Owners Association
Bonner County
Filter Building Layout

PROJECT: 08.005
DRAWING: 08005CON(7-30-08)
DESIGN BY: BLC
DRAWN BY: DPS
CHK. BY: RMT
LAST EDIT DATE: 7/30/08

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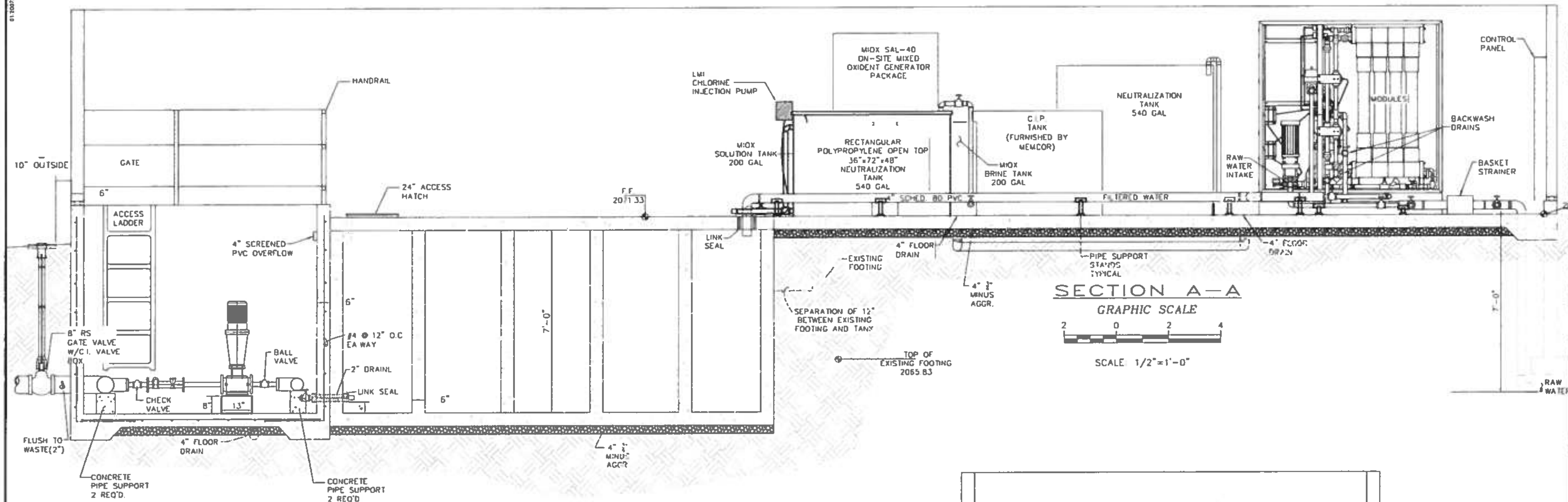

HANDRAIL
10" OUTSIDE
GATE
6"
ACCESS LADDER
4" SCREENED PVC OVERFLOW
24" ACCESS HATCH
8" RS GATE VALVE W/C.I. VALVE BOX
BALL VALVE
CHECK VALVE
8"
13"
#4 @ 12" O.C EA WAY
2" DRAINL
LINK SEAL
6"
6"
7'-0"
FLUSH TO WASTE(2")
4" FLOOR DRAIN
4" MINUS AGGR
CONCRETE PIPE SUPPORT 2 REQ'D.
CONCRETE PIPE SUPPORT 2 REQ'D
F.F. 2071.33
LINK SEAL
EXISTING FOOTING
SEPARATION OF 12" BETWEEN EXISTING FOOTING AND TANK
TOP OF EXISTING FOOTING 2065.83
LMI CHLORINE INJECTION PUMP
MIOX SOLUTION TANK 200 GAL
MIOX SAL-40 ON-SITE MIXED OXIDENT GENERATOR PACKAGE
RECTANGULAR POLYPROPYLENE OPEN TOP 36"x72"x48" NEUTRALIZATION TANK 540 GAL
SCHED 80 PVC
MIOX BRINE TANK 200 GAL
C.I.P. TANK (FURNISHED BY MEMCOR)
NEUTRALIZATION TANK 540 GAL
FILTERED WATER
4" FLOOR DRAIN
4" MINUS AGGR.
PIPE SUPPORT STANDS TYPICAL
RAW WATER INTAKE
MODULES
CONTROL PANEL
BACKWASH DRAINS
BASKET STRAINER
4" FLOOR DRAIN
7'-0"
RAW WATER

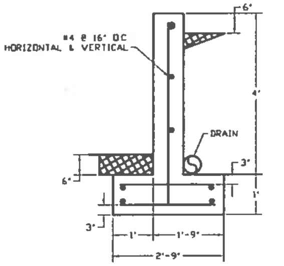
SECTION A—A

GRAPHIC SCALE

2 0 2 4

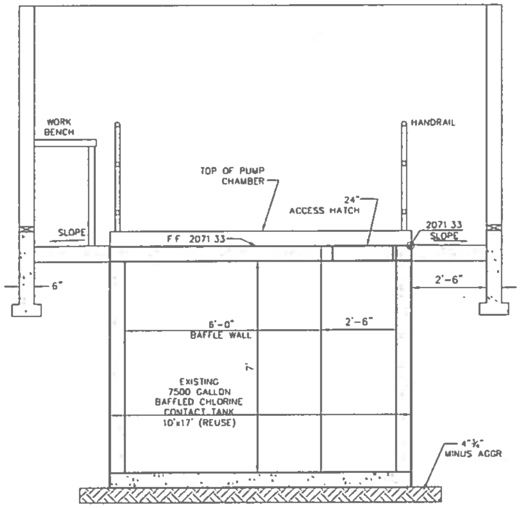
SCALE 1/2"=1'-0"

NOTE:
CONTRACTOR SHALL VERIFY INLET AND OUTLET ELEVATION WITH SUBMITTED PUMP PRIOR TO INSTALLATION OF PIPING.



FOOTING/WALL

NOT TO SCALE



SECTION B—B

GRAPHIC SCALE

2 0 2 4

SCALE: 1/2"=1'-0"

Sourdough Point Owners Association
Bonner County
Filter Building Cross Sections

PROJECT: 08.005
DRAWING: 08005CON7-30-08
DESIGN BY: BLC
DRAWN BY: DPS
CHK. BY: RJT
LAST EDIT DATE: 7/30/08

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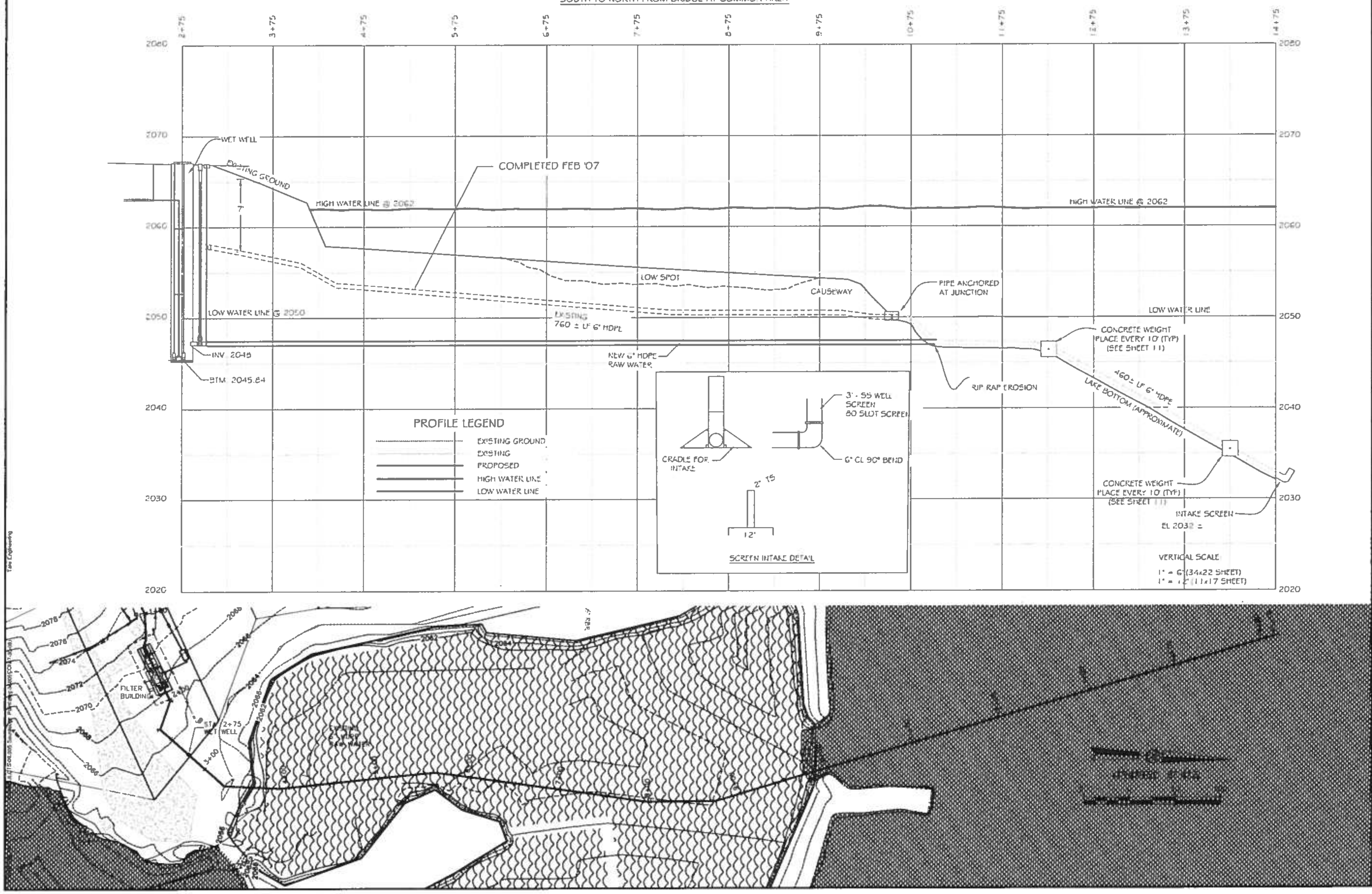
E-MAIL: tate@tate-eng.com

SHEET
7 OF 13

EXISTING AND PROPOSED WATER LINE ROUTE PROFILE

FOLLOWING ROUTE ALONG EAST EDGE OF LAGOON
SOUTH TO NORTH FROM BRIDGE AT COMMON AREA



Sourdough Point Owners Association
Bonner County
Water Line Cross Section

PROJECT: 08.005
DRAWING:
DESIGN BY: BLC
DRAWN BY: DPS
CHK. BY: RMT
LAST EDIT DATE: 7/30/08

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8
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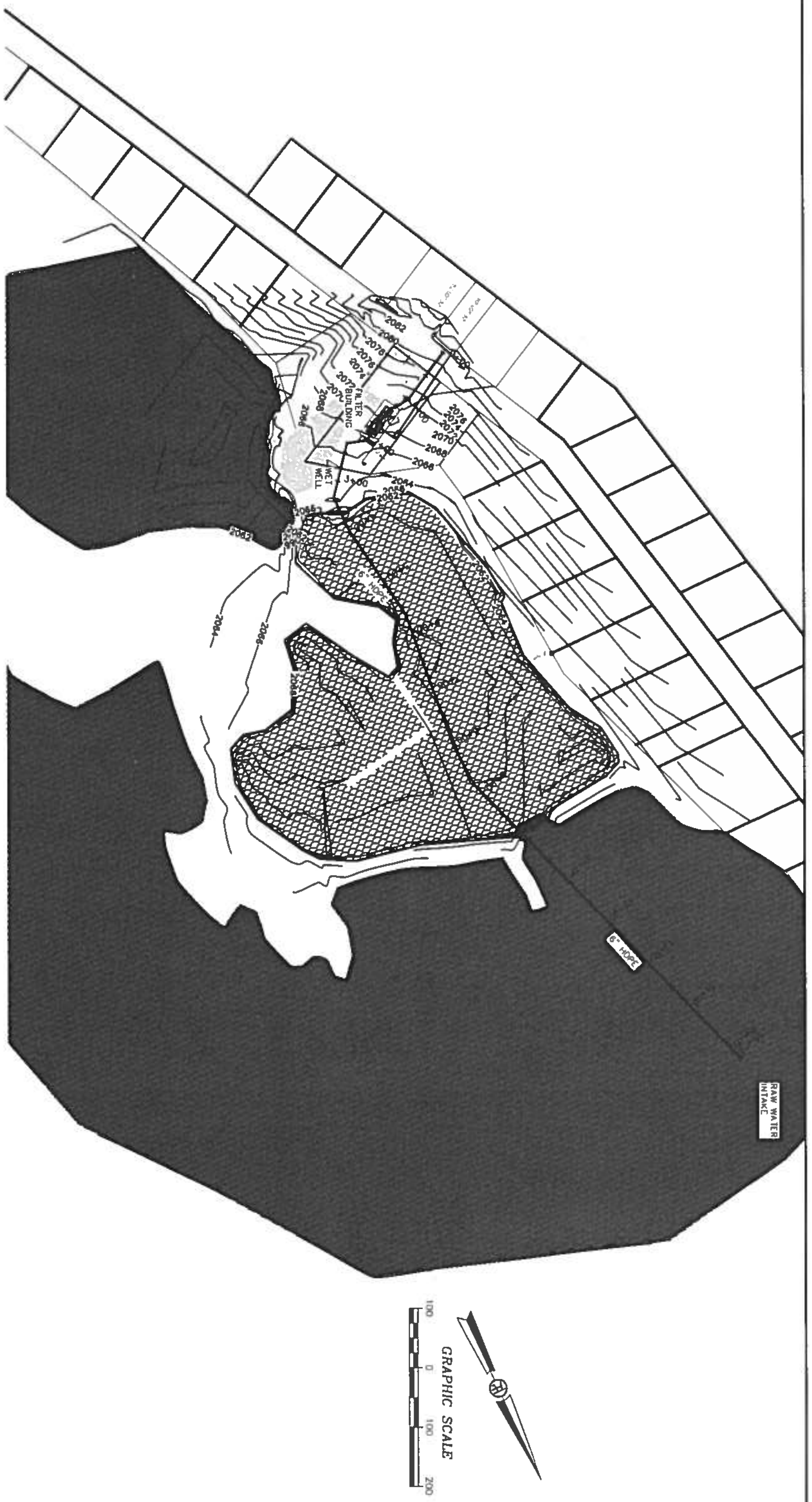

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Sourdough Point Owners Association
Bonner County
Raw Water Lake Intake

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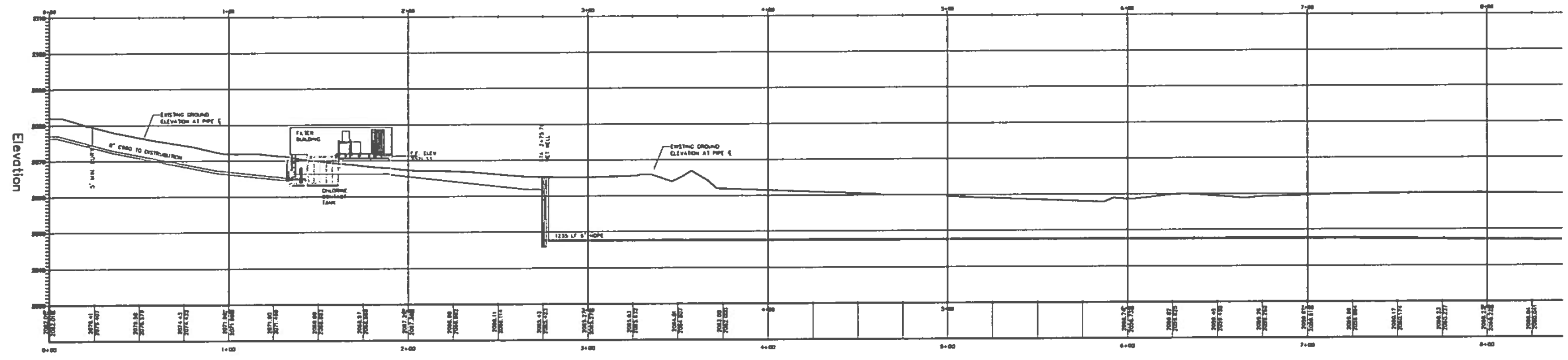
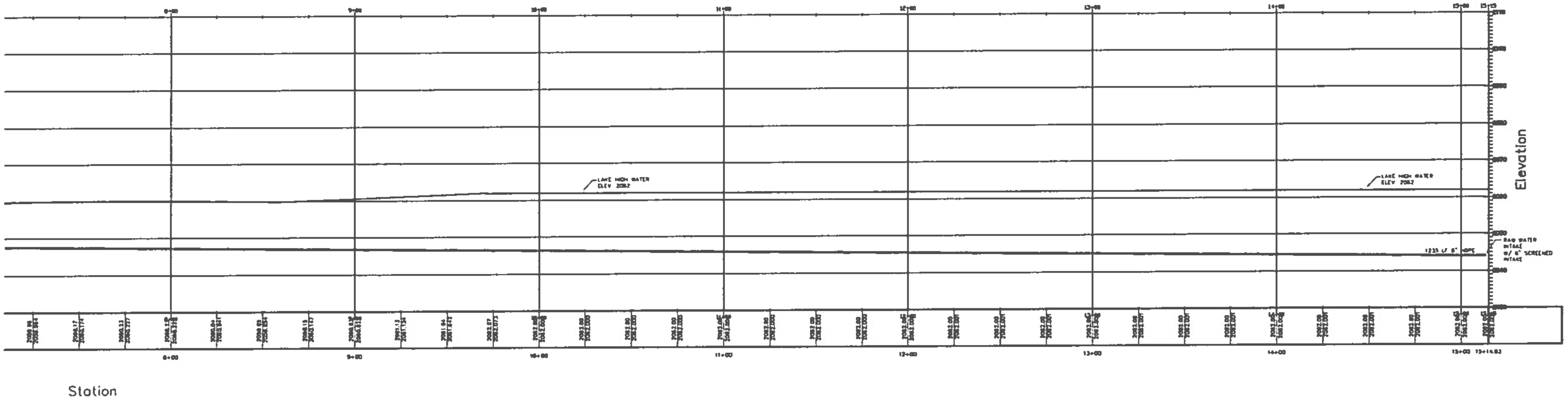


GRAPHIC SCALE

30 0 30 60


8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
15+15
LAKE HIGH WATER ELEV 2062
LAKE HIGH WATER ELEV 2062
1235 LF 8" HDPE
RAW WATER INTAKE W/ 8" SCREENED INTAKE
Elevation
15+00 15+14.83
Station

Sourdough Point Owners Association
Bonner County
Raw Water Lake Intake
Profiles

PROJECT: 08.005
DRAWING:
DESIGN BY:BLC
DRAWN BY:DPS
CHK. BY: RMT
LAST EDIT DATE: 7/30/08

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E-MAIL: rtate@tate-eng.com

SHEET
9A
OF 13

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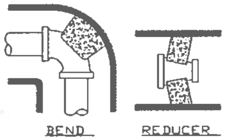
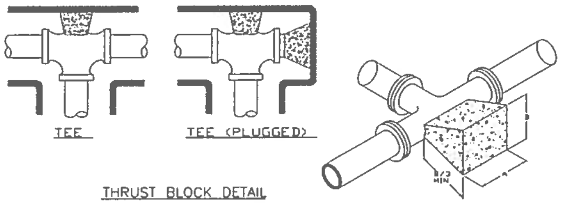
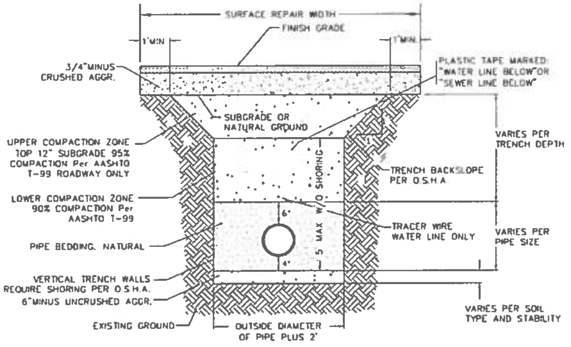
DIMENSION FOR THRUST BLOCKING								
FITTING SIZES	TEES & PLUGS		90 BEND		45 BEND & WYES		REDUCERS & 22 1/2 BEND	
	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-0"	0'-10"	1'-7"	0'-6"
6"	2'-0"	1'-11"	2'-5"	2'-2"	1'-10"	1'-7"	1'-9"	0'-10"
8"	2'-0"	2'-6"	3'-2"	3'-0"	2'-5"	2'-1"	1'-9"	1'-6"
10"	3'-4"	3'-3"	4'-0"	3'-10"	3'-0"	2'-9"	2'-2"	1'-11"
12"	4'-0"	3'-10"	4'-0"	4'-0"	3'-0"	3'-3"	2'-7"	2'-3"
14"	5'-5"	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"

THIS TABLE BASED ON 150 PSI MAIN PRESSURE 2000 PSF SOIL BEARING PRESSURE

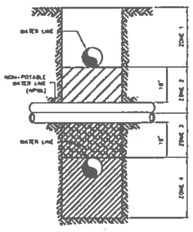


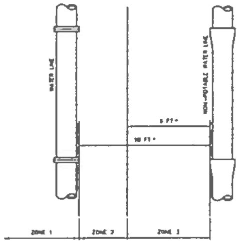


THRUST BLOCK DETAIL
N.T.S.


SURFACE REPAIR WIDTH
FINISH GRADE
1' MIN
1' MIN
3/4" MINUS CRUSHED AGGR.
PLASTIC TAPE MARKED: "WATER LINE BELOW" OR "SEWER LINE BELOW"
SUBGRADE OR NATURAL GROUND
UPPER COMPACTION ZONE TOP 12" SUBGRADE 95% COMPACTION Per AASHTO T-99 ROADWAY ONLY
VARIES PER TRENCH DEPTH
TRENCH BACKSLOPE PER O.S.H.A
LOWER COMPACTION ZONE 90% COMPACTION Per AASHTO T-99
5' MAX W/O SHORING
6"
TRACER WIRE WATER LINE ONLY
PIPE BEDDING, NATURAL
VARIES PER PIPE SIZE
4"
VERTICAL TRENCH WALLS REQUIRE SHORING PER O.S.H.A.
6" MINUS UNCRUSHED AGGR.
EXISTING GROUND
OUTSIDE DIAMETER OF PIPE PLUS 2'
VARIES PER SOIL TYPE AND STABILITY

PIPE BEDDING DETAIL
N.T.S





* DISTANCES ARE HORIZONTAL

VERTICAL SEPARATION REQUIREMENTS

ZONE 1. A) WATER AND NPWL MUST BE SEPARATED BY AT LEAST AND
B) ONE FULL, UNCUT LENGTH OF WATER PIPE MUST BE CENTERED OVER THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE NPWL.

ZONE 2 A) ONE FULL, UNCUT LENGTH OF WATER PIPE MUST BE CENTERED OVER THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE NPWL.

AND EITHER B) NPWL MAIN MUST BE CONSTRUCTED TO WATER MAIN STANDARDS AND PRESSURE TESTED FOR WATER TIGHTNESS FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF CROSSING.

OR C) EITHER THE NPWL OR WATER MAIN OR BOTH MUST BE ENCASED WITH A SLEEVING MATERIAL ACCEPTABLE TO DEQ FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF THE CROSSING

ZONE 3 SAME REQUIREMENTS AS ZONE 2 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING

ZONE 4 SAME REQUIREMENTS AS ZONE 1 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING

HORIZONTAL SEPARATION REQUIREMENTS

ZONE 1: A) NO SPECIAL REQUIREMENTS

ZONE 2 A) WATER AND NPWL SEPARATED BY AT LEAST 6 FEET AT OUTSIDE WALLS

AND B) WATER AT LEAST 18 INCHES HIGHER IN ELEVATION THAN THE NPWL.

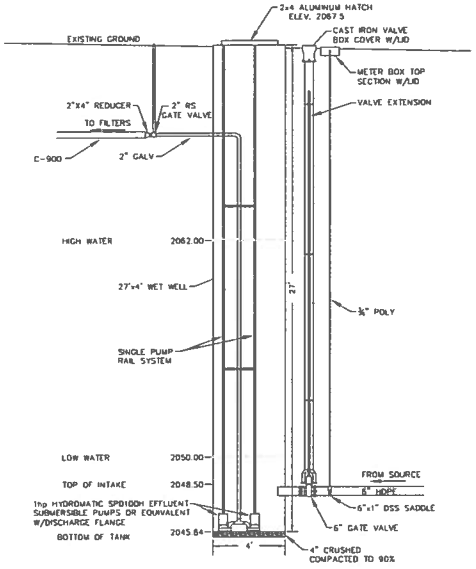
AND EITHER C) NPWL CONSTRUCTED TO WATER MAIN STANDARDS AND PRESSURE TESTED FOR WATER TIGHTNESS

OR D) NPWL ENCASED IN AT LEAST 6 INCHES OF CONCRETE MEASURED AT THE BELL.

OR E) SITE SPECIFIC REQUIREMENTS APPROVED BY DEQ

ZONE 3 NOT ALLOWED

NOTE: SANITARY SEWER FORCE MAINS MUST HAVE 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION. ZONE 2 AND ZONE 3 PLACEMENTS ARE NOT ALLOWED



WET WELL
NTS

Sourdough Point Owners Association
Bonner County
Details

PROJECT: 08.005
DRAWING:
DESIGN BY: BLC
DRAWN BY: DPS
CHK. BY: RMT
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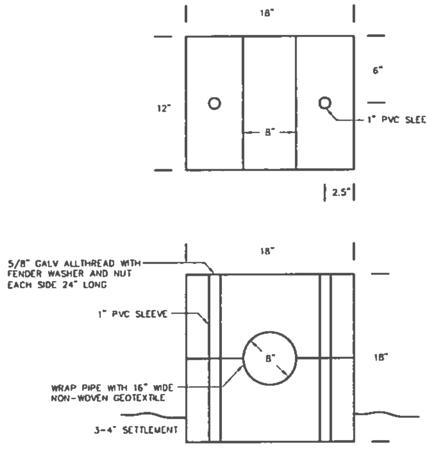
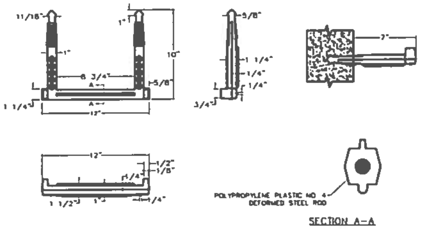

18"
12"
6"
8"
1" PVC SLEEVE
2.5"
5/8" GALV ALLTHREAD WITH FENDER WASHER AND NUT EACH SIDE 24" LONG
1" PVC SLEEVE
8"
18"
WRAP PIPE WITH 16" WIDE NON-WOVEN GEOTEXTILE
3-4" SETTLEMENT

NOTE: CONCRETE IS CAST INTO TWO PIECES AND ONE WEIGHT IS REQUIRED FOR EVERY 10 FEET OF LINE.

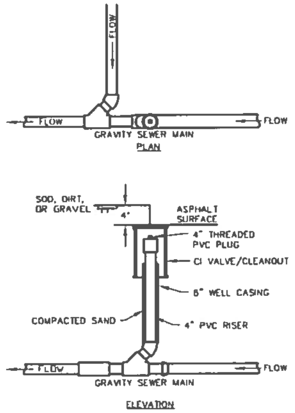
CONCRETE WEIGHT DETAIL
N.T.S.



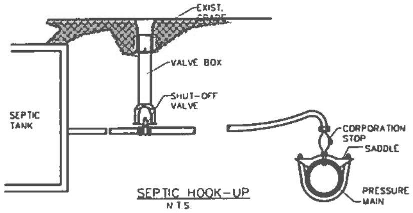
1. STEPS SHALL BE PLACED INTO WET CONCRETE WALL DURING MANUFACTURE OR MORTARED INTO HOLES AFTER CONCRETE HAS SET

2. PLASTIC COATED STEPS SHALL BE AS PER THIS STANDARD DRAWING OR AS APPROVED BY THE ENGINEER.

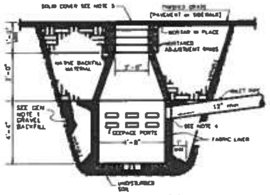
MANHOLE STEPS DETAIL
NOT TO SCALE



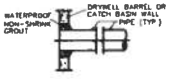
CLEANOUT DETAIL
NOT TO SCALE



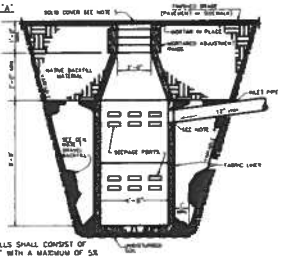
SEPTIC HOOK-UP
N.T.S.



DRYWELL - TYPE 'A'


WATERPROOF NON-SHRINK GROUT
DRYWELL BARREL OR CATCH BASIN WALL
PIPE (TYP)

GROUTING



DRYWELL - TYPE 'B'

GENERAL NOTES

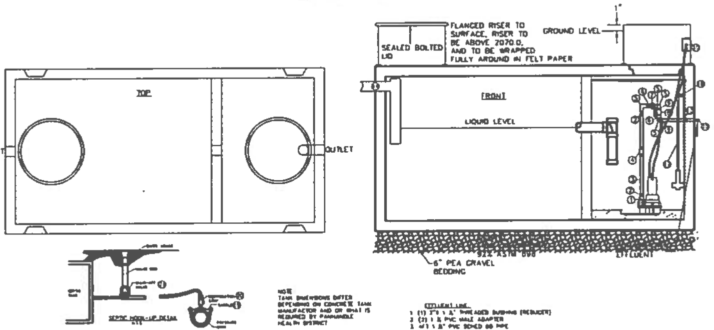
1. SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSING THE U.S. No. 200 SCREEN, AS MEASURED BY WEIGHT.

   GRAVEL BACKFILL QUANTITY FOR DRYWELLS:
   TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS.
   TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS.
   OR AS SPECIFIED ON ROAD PLANS.

2. ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE
3. WHEN PVC PIPE IS USED A PVC ADAPTER SHALL BE INSTALLED
4. PIPES SHALL BE GROUTED INTO DRYWELLS.
5. SEE STANDARD DRAWING SS-2 FOR FRAME AND COVER DETAIL.

storm_details\dw.dwg

SEPTIC TANK PRESSURE SYSTEMS



NOTE
TANK DIMENSIONS DIFFER DEPENDING ON CONCRETE TANK MANUFACTOR AND OR WHAT IS REQUIRED BY PANHANDLE HEALTH DISTRICT

PRESSURE SYSTEMS:
1. 1500 GALLON CONCRETE TANK (1000/500) OR AS REQUIRED BY PANHANDLE HEALTH DISTRICT FOR GREATER THAN 3 BEDROOMS
2. 2 OSI RISER 24" OR 30" DIAMETER 1 EACH ON TANK AND PUMP CHAMBER
3. OSI LIDS (2) 24" or 30" DIAMETER [illegible] OR [illegible]
4. OSI SEALANT (2PART)
5. [illegible] PUMP OR [illegible] PUMP FOR BONNER BAY
6. CONTROL PANEL [illegible]
7. PRESSURE BELL W/ROLLING DIAPHRAM

TRACE WIRE: 12 GAGE, SOLID LOCATE WIRE SHALL BE PLACED ON ALL PIPE RUNS WITH ENDS ACCESSIBLE FOR USE. (ONE END ADJACENT RISER, OTHER END IN CAPPED STAND PIPE AT MAIN CONNECTION) MAGNETIC DETECTABLE CONDUCTOR, GREEN COLORED, PLASTIC COATED SEWER TAPE SHALL BE PLACED 6 INCHES OVER THE TOP OF ALL PIPE RUNS

SEALING: TANKS SHALL BE SEALED IN ACCORDANCE TO SPECIFICATIONS AND CITY SHALL BE PROVIDED WITH 5 YEAR WARRANTY

EFFLUENT LINE:
1 (1) 2" x 1 ¼" THREADED BUSHING (REDUCER)
2 (2) 1 ¼ PVC MALE ADAPTER
3 ±/- 1 ¼" PVC SCHED 80 PIPE
4 (1) 1 ¼" PVC CHECK VALVE (SLIP x SLIP)
5 (3) 1 ¼" PVC 90 DEGREE FITTINGS (THREAD x THREAD)
6 (4) 1 ¼" x 3" PVC THREADED NIPPLES
7 (1) PVC TRU-UNION VALVE (THREAD x THREAD)
8 (1) 1 ¼" PVC BALL VALVE (THREAD x THREAD)
9 (1) 1 ¼" x 24" STAINLESS STEEL NIPPLE
10 (1) SPLICE BOX
11 (3) SPLICE KIT (GEL PACKS)
12 (1) 1" GROMMET
13 (1) 1 ¼" GROMMET
14 PIPE FROM HOUSE TO SEPTIC TANK SHALL BE 4" ABS
15 PIPE FROM SEPTIC TANK TO MAIN SHALL BE 1 ¼" SCHED 40 PVC OR 200# POLYETHYLENE WITH PACK JOINTS AND STAINLESS STEEL INSERTS
16 STAINLESS STEEL MOUNTING BRACKET
17 EXTENSION TUBE W/ PRESSURE BELL
18 FELT PAPER TO FULLY WRAP AROUND FLANGES RISER TO SURFACE.

MAIN LINE CONNECTION:
19 SADDLE TAP SHALL CAST IRON WITH STAINLESS STEEL STRAPS
20 CORPORATION STOP SHALL BE BRASS OR STAINLESS STEEL
21 SHUT OFF VALVE FOR PRESSURE LATERAL AND VALVE BOX

Sourdough Point Owners Association
Bonner County
Details

PROJECT 08.005
DRAWING:
DESIGN BY:BLC
DRAWN BY:DPS
CHK. BY: RMT
LAST EDIT DATE: 7/30/08

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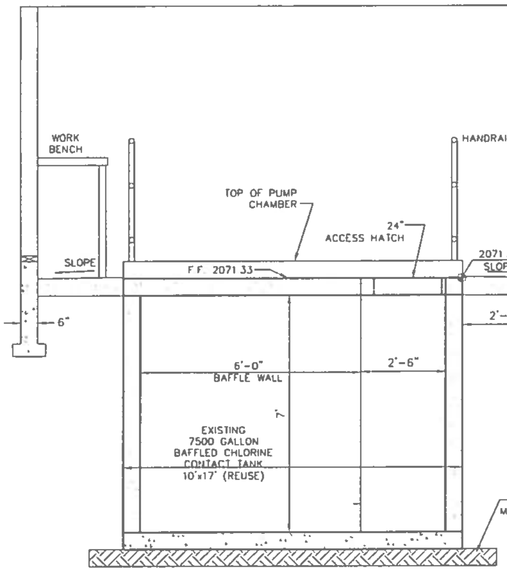
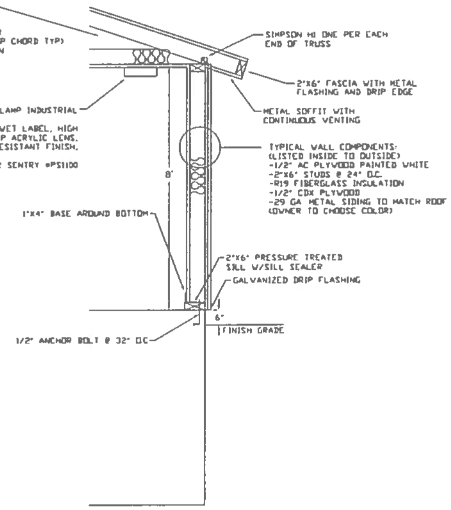


TYPICAL ROOF COMPONENTS:
(LISTED INSIDE TO OUTSIDE)
-1/2" PLYWOOD PAINTED WHITE
-6 ML POLYETHELENE VAPOR BARRIER
-PRE-ENGINEERED TRUSSES (2"X4" TOP CHORD TYP) @24" O.C. W/R38 CEILING INSULATION
-1/2" CDX PLYWOOD
-DELTA RIB 26 GA. METAL ROOFING

40psf SNOW LOAD
15psf DEAD LOAD

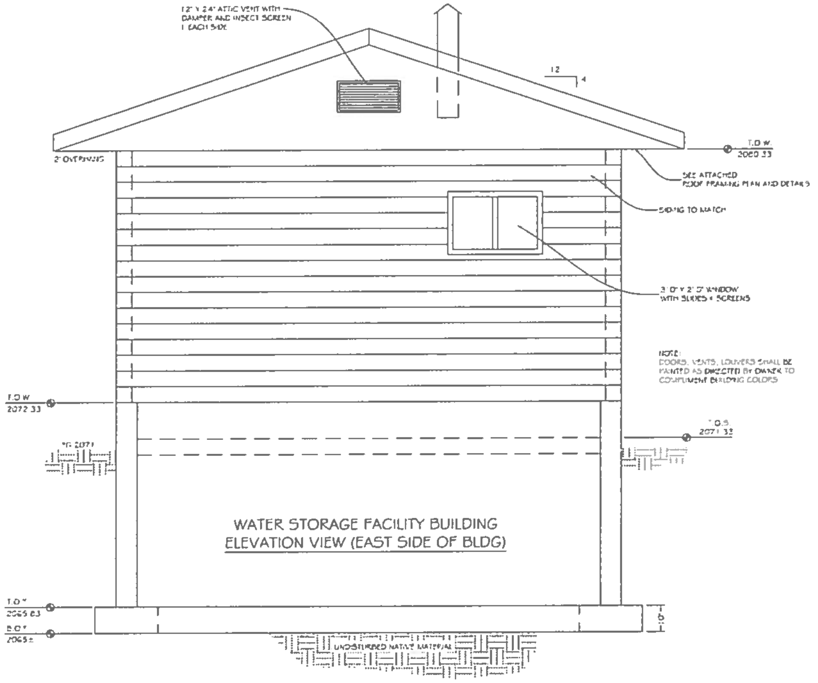

SIMPSON H1 ONE PER EACH END OF TRUSS
2"X6" FASCIA WITH METAL FLASHING AND DRIP EDGE
METAL SOFFIT WITH CONTINUOUS VENTING
(4) 4', 2-LAMP INDUSTRIAL HOUSING WITH WET LABEL, HIGH IMPACT DEEP ACRYLIC LENS, CORROSION RESISTANT FINISH, AND POWER SENTRY #PS1100
8'
1"X4" BASE AROUND BOTTOM
2"X6" PRESSURE TREATED SILL W/SILL SEALER
GALVANIZED DRIP FLASHING
6"
FINISH GRADE
1/2" ANCHOR BOLT @ 32" OC

TYPICAL WALL COMPONENTS:
(LISTED INSIDE TO OUTSIDE)
-1/2" AC PLYWOOD PAINTED WHITE
-2"X6" STUDS @ 24" O.C.
-R19 FIBERGLASS INSULATION
-1/2" CDX PLYWOOD
-29 GA METAL SIDING TO MATCH ROOF (OWNER TO CHOOSE COLOR)

NOTES:

1. ALL WORKMANSHIP SHALL CONFORM TO THE LASTEST EDITION I.B.C. AND ALL LOCAL CODES.
2. MIN. CONCRETE COMPRESSION STRENGTH AT 28 DAYS = 3000 p.s.i.
3. STEEL REBAR Fy = 40,000 p.s.i.
4. ALL DIMENSION LUMBER: D.F. NO. 2 OR BETTER UNLESS OTHERWISE NOTED.

CONTROL BUILDING WALL DETAIL
NOT TO SCALE


12" X 24" ATTIC VENT WITH DAMPER AND INSECT SCREEN 1 EACH SIDE
12
4
2' OVERHANG
T.O.W. 2080.33
SEE ATTACHED ROOF FRAMING PLAN AND DETAILS
SIDING TO MATCH
3'-0" X 2'-0" WINDOW WITH SLIDES + SCREENS
T.O.W. 2072.33
FG 2071
T.O.S. 2071.33
T.O.F. 2065.83
B.O.F. 2065±
1'-0"
UNDISTURBED NATIVE MATERIAL

NOTE:
DOORS, VENTS, LOUVERS SHALL BE PAINTED AS DIRECTED BY OWNER TO COMPLIMENT BUILDING COLORS

WATER STORAGE FACILITY BUILDING
ELEVATION VIEW (EAST SIDE OF BLDG)

STRUCTURAL SECTION

NOT TO SCALE

GRAPHIC SCALE
2 0 2 4
SCALE. 1/2"=1'-0"

Sourdough Point Owners Association
Bonner County
Details/Structural Section

PROJECT: 08.005
DRAWING: 08005CON7-30-08
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DRAWN BY: DPS
CHK. BY: RMT
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