

M E M O R A N D U M

State of  
Washington  
Department  
of Ecology



TO: Mark Adam  
FROM: Gary Rothwell  
SUBJECT: Standard Oil Survey on 6-21-72  
DATE: July 7, 1972

	pH	COD	BOD	TS	TNVS	TSS	TSNVS	LEAD
S-1 Inf. Comp =	9.4	177	61	326	185	28	2	N.D.
Eff. Comp =	9.5	177	33	344	232	41	10	N.D.

Temp	TIME	INF	EFF	Total Oils	TIME	INF	EFF
C°	0930	49.4	44.8		1135	102	104
	1015	49.2	45.6		1415	1150	77
	1110	>52.0	46.0				
	1210	46.2	46.2				
	1310	46.2	46.3				
	1410	>52.0	47.9				
	1505	>52.0	49.5				
					N.D. None Detected		

Total flow during survey period (0900-1500) computed by multiplying sump pump rating by total hours pump ran.

$$120\text{gpm} \times 5 \text{ hrs} = 36,000 \text{ gal.}$$

S-2	TIME	TEMP
	1005	42.2
	1105	43.2
	1205	45.8
	1305	42.0

S-3	pH	TS	TNVS	TSS	TSNVS
Eff Comp	10.1	415	358	16	6

TIME	TEMP °C	Eff	TIME	TOTAL OILS
0915	18.6		1100	6
1000	18.2			
1100	18.8			
1200	19.8			
1300	19.6			
1400	19.7			
1500	20.1			

S-4	TIME	TEMP °C	pH	TS	TNVS	TSS	TSNVS	TOTAL OILS
	0945	18.3	9.6	901	809	21	8	3

NOTE: S-3 was a composite sample, S-4 was a grab sample.

S-5 NOT SAMPLED

S-6	Eff	TIME	TEMP °C	pH	TS	TNVS	TSS	TSNVS	TOTAL OILS
		0945	17.5	7.1	2580	2090	8	0	5
		1400	18.8	-	-	-	-	-	-

NOTE: A composite was requested at this station, However due to the inaccessability and extremely small amount of flow, grab samples were taken.

C-1 This station was sampled only for phenols because of laboratory loading and the fact that it is C-2 with salt water mixed with it at the rate of 500 gallons per minute. Phenols = 2.41

C-2		pH	TS	TNVS	TSS	TSNVS	PHENOLS
	Inf Comp	2.5	205	103	9	0	8.01
	Eff Comp	2.7	209	93	9	0	6.97

Eff	TIME	TEMP °C	T-SULFIDES	MERCAPTAINS	TOTAL OILS
	0930	27.8	3.3	-	-
	1030	27.2	3.0	-	-
	1130	29.4	3.1	-	13
	1230	29.1	3.1	-	-
	1330	29.0	2.5	-	-
	1430	>30.0	3.4	144	*Sample broken in Lab

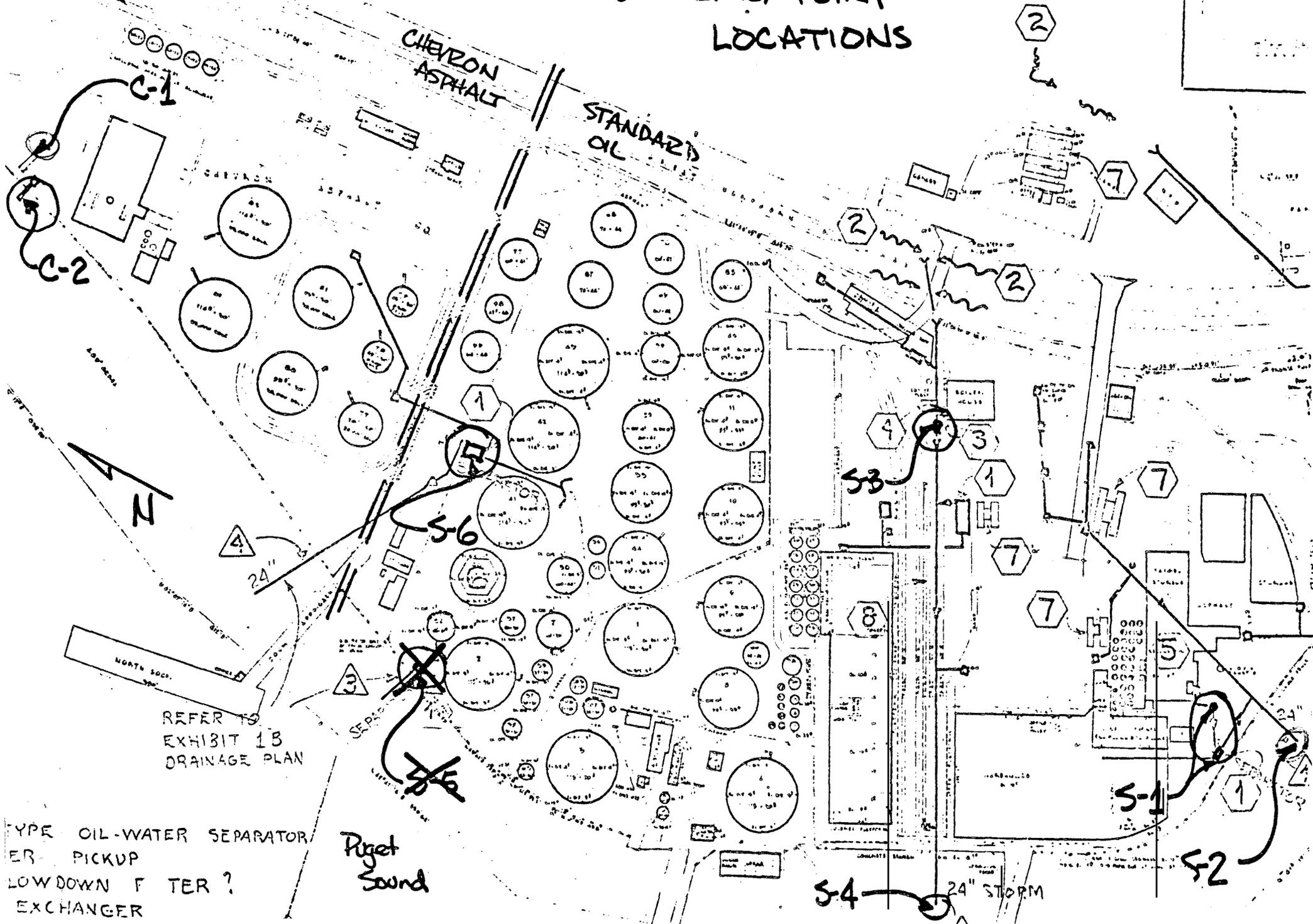
Total discharge from 0900 to 1500 = 9,840 Gallons

All results listed above are in PPM unless otherwise specified.

No special conditions were noted during the survey except that on 6-20-72 while we were setting up the survey a fairly large amount of blue-green paint was going through the separator at S-1 and the paint did not appear on 6-21-72, so would not show up on any of the lab results.

GR:d1b

# SAMPLING POINT LOCATIONS



REFER TO EXHIBIT 13 DRAINAGE PLAN

TYPE OIL-WATER SEPARATOR  
LOWDOWN FILTER EXCHANGER

Puget Sound

24" STORM

## STANDARD OIL

MAP NUMBER	SAMPLING POINT	TYPE OF SAMPLE	SAMPLING LOCATION(S)	TESTS REQUESTED
S-1	Barrel reconditioning separator	Six hour composite (once per hour)	Influent: At pump sump Effluent: At separator wier	pH, temperature, flow, total oil, BOD, COD, lead Solids: TS, TNVS, TSS, TNVSS, settleable
S-2	Barrel reconditioning outfall	Grab sample (several)	At outfall on beach	Temperature
S-3	Boiler house	Six hour composite (once per hour)	Effluent from boiler house at grate outside	pH, temperature, flow, total oil Solids: TS, TNVS, TSS, TNVSS, settleable
S-4	Boiler house outfall	Grab sample (one)	At outfall on beach when tide permits	Same as for boiler house for check
S-5	API yard separator	Six hour composite (once per hour)	Influent: In separator Effluent: At separator wier	pH, temperature, flow, total oil settleable solids
	(NOTE:	Only possible to sample	if raining - separator normally valved off)	
S-6	CPI main yard separator	Six hour composite (once per hour)	Influent: In separator Effluent: At separator	pH, temperature, flow, total oil settleable solids

## CHEVRON ASPHALT

C-1	Cooling water/separator	Grab samples (several)	Outfall to Sound	pH, temperature, flow, total oil, phenol equivalent
C-2	API separator	Six hour composite (once per hour)	Influent: In separator Effluent: At separator wier	pH, temperature, flow, total oil, phenol equivalent, sulfides, mercaptans Solids: TS, TNVS, TSS, TNVSS, settleable
MRA/dp			<b>1530 OIL ON EFFLUST AT LAB.</b>	
6-1-72 (dt)				

Pete Hildebrandt and Ron Pine and Files

May 23, 1972

Marc R. Adam

**SURVEY REQUEST - STANDARD OIL COMPANY AND CHEVRON ASPHALT  
RICHMOND BEACH**

Standard Oil Company of California (Western Operations) and Chevron Asphalt Company are located adjacent to each other at Point Wells on Puget Sound just north of Richmond Beach. Standard Oil operates a bulk petroleum storage, transfer, and blending facility as well as a barrel reconditioning operation and Chevron Asphalt has an asphalt refining plant at this site. Both industries have been operating over the past year under temporary waste discharge permits which included provisions for substantial improvements in their waste treatment facilities. These included such things as interception of domestic wastes to the sanitary sewer system, improvement of storm drainage systems, modification of existing oil water separators, and construction of a new oil water separator. These improvements were handled jointly by these industries and are now nearly complete. There are, however, other areas in which it is anticipated that further waste treatment improvements may be required.

Thus, we would like to have a thorough survey done on both of these industries in order to 1) check the efficiency and effectiveness of their new and modified waste treatment facilities and 2) get a good baseline of information on the discharge(s) which may require further treatment. Attached are a list of sampling information (sampling points, tests requested, etc.) and a plan view of the plant area locating the sampling points. We would like to have this survey done as soon as possible.

Any suggestions or questions you may have would be appreciated.

MRA/dp

5-23-72

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

ORIGINAL TO: W. R. ...  
COPIES TO:  
.....  
.....  
LAB FILES .....



WATER QUALITY LABORATORY

DATA SUMMARY

Source STANDARD OIL

Collected By G. A.

Date Collected 6-21-72

Goal, Pro./Obj. 3 1 3\*

Log No.	Station	pH	COD	OILS	Phenols	BOD	T.S.	T.NVS	T.SS	T.S.NVS	Lead
7222-33	C-1	-	-	-	2.41	-	-	-	-	-	-
34	C-2 INF	2.5	-	-	8.01	-	205	103	9	0	-
35	C-2 EFF	2.7	-	13	6.97	-	209	93	9	0	-
36	S6 <sup>0945</sup>	2.1	-	5	-	-	2580	2090	8	0	-
37	S4	9.6	-	3	-	-	901	309	21	8	-
38	S1 EFF	9.5	177	-	-	33.	344	232.	41	10	ND
39	S1 INF	9.4	177	-	-	61.	326	185	29	2.	ND
40	S3	10.1	-	6	-	-	415	358	16.	6.	-
44	C2 1530	-	-	-*	-	-	-	-	-	-	-
45	S6 1400	-	-	6	-	-	-	-	-	-	-
46	S1 EFF 1415	-	-	77	-	-	-	-	-	-	-
47	S1 INF 1425	-	-	1150	-	-	-	-	-	-	-
	1135 S1 EFF			104							
	1140 S1 INF			102							
		MECAPTANS									
722235	C-2 EFF	144.									

No: All results are in PPM unless otherwise specified. ND is "None Detected"

\* LOST IN LAB

Summary by A. J. ... Date 7-6-72