



On-Shore Production of Crude Oil and Natural Gas

Fugitive Volatile Organic Compound Emission Sources

**Emission Test Report
Houston Oil and Minerals Co.
Smith Point Plant
Chambers County, Texas**

DCN 81-222-018-04-39

EMB Report No. 80-OSP-1

EMISSION TEST REPORT

FUGITIVE VOC TESTING
AT
HOUSTON OIL AND MINERALS
SMITH POINT PLANT

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SECTION 1

INTRODUCTION

This report presents the results of testing for fugitive VOC (Volatile Organic Compounds) emissions at the Houston Oil and Minerals gas plant near Smith Point, Texas. The testing was performed by Radian Corporation on October 6 through October 8, 1980. This work was funded and administered by the Emission Measurement Branch of the U.S. Environmental Protection Agency. The purpose of this testing was to develop data to be used in support of New Source Performance Standards for onshore production facilities.

The testing described in this report consisted of a screening survey using two fugitive emission detection methods, EPA Method 21 using portable analyzers and soap scoring. The objectives of this testing were to:

- 1) Determine leak frequency by each method, and
- 2) Collect comparative data on each method so that emission data from other sources could be used to support New Source Performance Standards.

The following sections present a summary of results, a description of the process configuration, and the testing methodology. A full listing of the data and other supplemental information are included in the appendices.

SECTION 2

SUMMARY OF RESULTS

This section presents a summary of the screening data. A full data listing is included as Appendix A.

The gas plant screening results are summarized in Tables 2-1 and 2-2. Table 2-1 presents the distribution of VOC concentration readings for each source type, while Table 2-2 presents similar data on soap scores.

The screening results for the production tank battery are presented separately, since this facility is not part of the gas plant. The limited screening data obtained for the tank battery are presented in Table 2-3 and 2-4 for VOC concentrations and soap scores, respectively. Table 2-5 presents a complete inventory of fittings on the tank battery.

It should be noted that the source type called flanges actually includes a variety of pipe-to-pipe connections including threaded fittings, unions, and compression-type tubing fittings. Welded joints were not included in this survey. The "other" category represents a group of sources that were too few in number to warrant separate listing. Included in the "other" category were sight glasses, vacuum breakers, meters, pig traps, control valve diaphragm vents, and thermowells.

TABLE 2-1

SUMMARY OF RESULTS:
VOC CONCENTRATION OCCURRENCE DISTRIBUTION
HOUSTON OIL AND MINERALS
SMITH POINT GAS PLANT

Screening Value (ppmv)	Source Type														
	FLANGES'		PROCESS DRAINS		OPEN ENDED LINES		RELIEF VALVES		VALVES		PUMP SEALS		COMPRESSORS		OTHER
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0 TO 199	180 80.7		0 --	28 62.2		1 10.0	197 59.5	0 0.0	0 --		18 39.1				
200 TO 9,999	31 13.9		0 --	10 22.2		0 0.0	56 16.9	1 100.0	0 --		14 30.4				
>= 10,000	12 5.4		0 --	7 15.6		9 90.0	78 23.6	0 0.0	0 --		14 30.4				
TOTAL SOURCES SCREENED	223 19.8		0 --	45 95.7		10 90.9	331 97.1	1 100.0	0 --		46 100.0				
SOURCES NOT SCREENED	902* 80.2		0 --	2 4.3		1 9.1	10 2.9	0 0.0	0 --		0 0.0				
TOTAL SOURCES	1125*		0	47		11	341	1	0		46				

- NUMBER OF SOURCES

% - PERCENT OF TOTAL SOURCES SCREENED

* ESTIMATED VALUE - EVERY FIFTH FLANGE WAS SURVEYED

TABLE 2-2
 SUMMARY OF RESULTS:
 SOAP SCORING OCCURRENCE DISTRIBUTION
 HOUSTON OIL AND MINERALS
 SMITH POINT GAS PLANT

SOAP SCORE	SOURCE TYPE															
	FLANGES		PROCESS DRAINS		OPEN ENDED LINES		RELIEF VALVES		VALVES		PUMP SEALS		COMPRESSORS		OTHER	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	205	91.5	0	--	9	60.0	7	77.8	235	71.0	1	100.0	0	--	20	55.6
1	6	2.7	0	--	2	13.3	1	11.1	10	3.0	0	0.0	0	--	5	13.9
2	2	0.9	0	--	3	20.0	0	0.0	15	4.5	0	0.0	0	--	1	2.8
3	6	2.7	0	--	0	0.0	0	0.0	16	4.8	0	0.0	0	--	0	0.0
4	5	2.2	0	--	1	6.7	1	11.1	55	16.6	0	0.0	0	--	10	27.8
TOTAL SOURCES SOAPED	224	19.9	0	--	15	31.9	9	81.8	331	97.1	1	100.0	0	--	36	78.3
SOURCES NOT SOAPED	901*	80.1	0	--	32	68.1	2	18.2	10	2.9	0	0.0	0	--	10	21.7
TOTAL SOURCES	1125*		0		47		11		341		1		0		46	

- Number of Sources
 % - Percent of Total Sources Soaped
 * - Estimated Value - Every fifth flange was surveyed

TABLE 2-3

SUMMARY OF RESULTS:
VOC CONCENTRATION OCCURRENCE DISTRIBUTION
HOUSTON OIL AND MINERALS
SMITH POINT TANK BATTERY

Source Type																
Screening Value (PPMV)	Flanges		Process Drains		Open Ended Lines		Relief Valves		Valves		Pump Seals		Compressors		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0 TO 199	7	100.0	0	--	5	83.3	2	33.3	41	97.6	0	--	0	--	1	100.0
200 TO 9,999	0	0.0	0	--	1	16.7	3	50.0	0	0.0	0	--	0	--	0	0.0
>= 10,000	0	0.0	0	--	0	0.0	1	16.7	1	2.4	0	--	0	--	0	0.0
TOTAL SOURCES SCREENED	7	100.0	0	--	6	100.0	6	85.7	42	100.0	0	--	0	--	1	100.0
SOURCES NOT SCREENED	0*	0.0	0	--	0	0.0	1	14.3	0	0.0	0	--	0	--	0	0.0
TOTAL SOURCES	7*	100.0	0		6		7		42		0		0		1	
								0.0								

- NUMBER OF SOURCES

% - PERCENT OF TOTAL SOURCES SCREENED

* ESTIMATED VALUE - EVERY FIFTH FLANGE WAS SURVEYED

TABLE 2-4

SUMMARY OF RESULTS:
 SOAP SCORING OCCURRENCE DISTRIBUTION
 HOUSTON OIL AND MINERALS
 SMITH POINT TANK BATTERY

SOAP SCORE	Source Type															
	FLANGES		PROCESS DRAINS		OPEN ENDED LINES		RELIEF VALVES		VALVES		PUMP SEALS		COMPRESSORS		OTHER	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	7	100.0	0	--	3	100.0	4	100.0	41	97.6	0	--	0	--	0	--
1	0	0.0	0	--	0	0.0	0	0.0	0	0.0	0	--	0	--	0	--
2	0	0.0	0	--	0	0.0	0	0.0	0	0.0	0	--	0	--	0	--
3	0	0.0	0	--	0	0.0	0	0.0	0	0.0	0	--	0	--	0	--
4	0	0.0	0	--	0	0.0	0	0.0	1	2.4	0	--	0	--	0	0.0
TOTAL SOURCES SOAPED	7	100.0	0	--	3	50.0	4	57.1	42	100.0	0	--	0	--	0	0.0
SOURCES NOT SOAPED	0*	0.0	0	--	3	50.0	3	42.9	0	0.0	0	--	0	--	1	100.0
TOTAL SOURCES	7*	0	6		7		42		0		0		0		1	

- NUMBER OF SOURCES

% - PERCENT OF TOTAL SOURCES SOAPED

* ESTIMATED VALUE - EVERY FIFTH FLANGE WAS SURVEYED

TABLE 2-5

SUMMARY OF RESULTS:
 COMPONENT INVENTORY
 HOUSTON OIL AND MINERALS
 SMITH POINT TANK BATTERY

<u>Component Type</u>	<u>Service</u>	<u>Population</u>
Valves - block/gate	Gas	68
	Liquid	16
- block/plug	Gas	51
	Liquid	15
- block/ball	Gas	6
	Liquid	16
- control/globe	Gas	5
- control/plug	Liquid	2
Flanges	Gas	708
	Liquid	263
Open-ended lines	Gas	3
	Liquid	10
Relief valves	Gas	9

SECTION 3

PROCESS DESCRIPTION

The Houston Oil and Minerals Smith Point Plant is located on the upper Texas Gulf Coast. This gas plant uses the solid bed adsorption principle to partially remove ethane and heavier hydrocarbons from natural gas before routing it to a sales gas pipeline.

Natural gas liquids are removed by adsorption onto silica gel in a set of swing adsorbers. The treated natural gas goes to a pipeline for sale with custody transfer taking place before the metering station. The natural gas liquids are stripped from a spent bed with hot regeneration gas and then condensed. The condensed liquids are routed to on-site tankage, from which they are periodically off-loaded into tank trucks for sales.

This site had three separate adsorption units (Units A, B, and C). Adsorption Unit A was the largest of the three with a capacity of 60 MMSCFD (million standard cubic feet per day). During the testing, the charge rate to Unit A varied from 55 MMSCFD to 33 MMSCFD. Unit B (capacity 20 MMSCFD) was shut down and depressured, so no survey was conducted there. Unit C (capacity of 30 to 60 MMSCFD) was not operating, but it was under pressure with natural gas. A survey of Unit C was, therefore, performed. There was also an oil production tank battery at this site, so a limited survey was made of that area. The results sections are coded as follows to distinguish between sources:

<u>Unit No.</u>	<u>Description</u>
1	Adsorption Unit A and the storage and loading facilities
2	Adsorption Unit C
3	Tank Battery

Figure 3-1 presents a simplified schematic diagram of one cycle of operation of Adsorption Unit A. The inlet gas flows through a liquid knock-out drum and into a manifold of time-cycled three-way valves. In the cycle shown in the drawing, the feed gas is routed through adsorbers #1 and #2 and out to sales. A slipstream of the treated gas is heated and routed to adsorber #3 for regeneration. The rich outlet from adsorber #3 is condensed and the liquids routed to storage. The noncondensibles are used as fuel in the regeneration gas heater. Adsorber #4 is cooling prior to return to adsorption service.

In the next cycle, adsorbers #1 and #4 would be in adsorption service, adsorber #2 would be regenerating, and adsorber #3 would be cooling. Four such consecutive cycles would return the unit to the starting point.

Adsorption Units B and C were quite similar, except that they had only three adsorbers each. With only one vessel in adsorption service, these units would finish a complete loop in only three cycles.

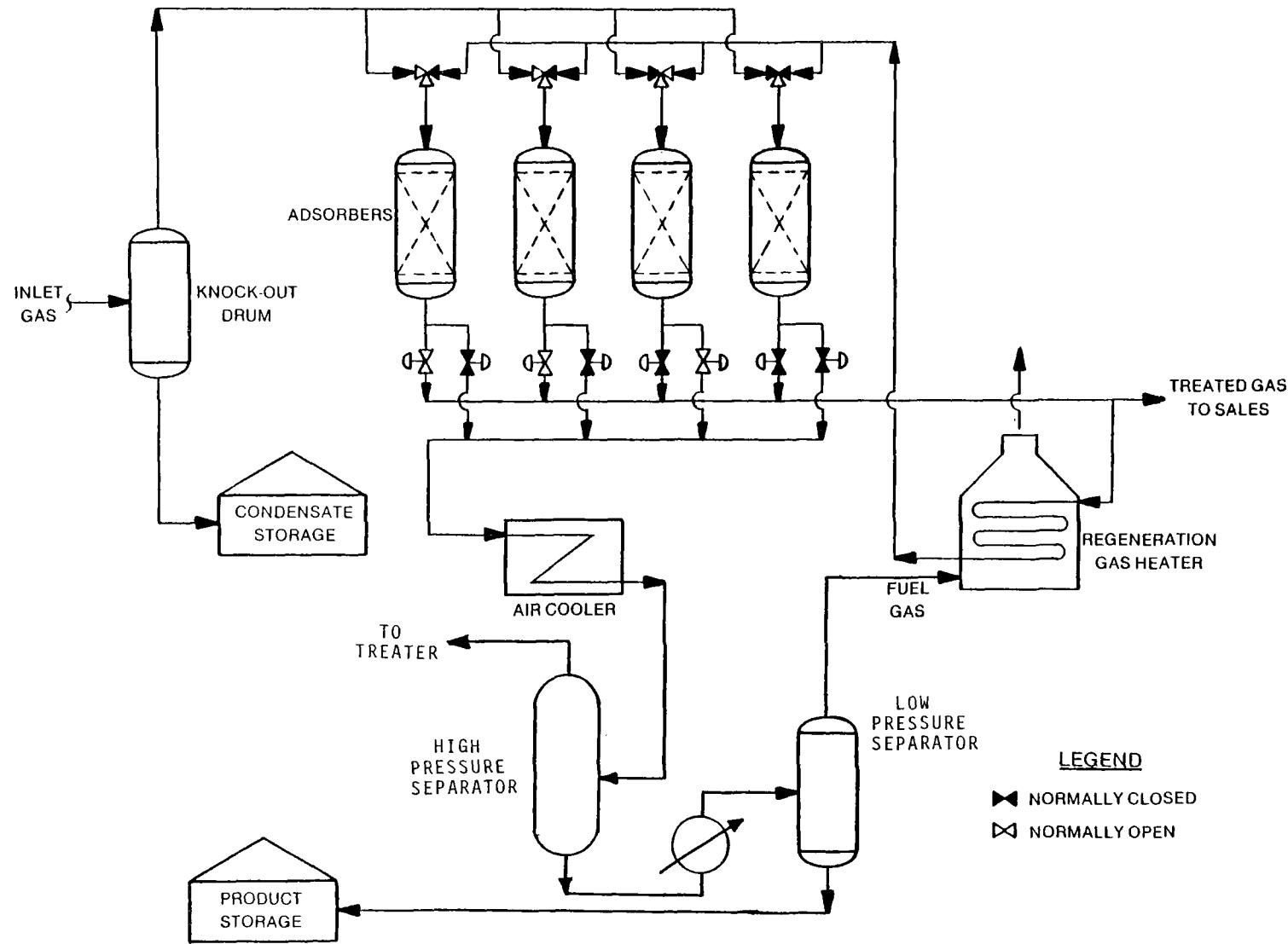


Figure 3-1. Simplified flow diagram for adsorption Unit A.
(Shown in one of four possible cycles)

SECTION 4

TESTING METHODOLOGY

The fugitive emissions testing at this site was limited to "screening." Screening is a generic term covering any quick, portable method of detecting fugitive emissions. Two screening methods were used in parallel on this task, instrumental screening (using the Century Systems OVA-108) and soap scoring.

The instrumental screening was done according to the procedures specified in EPA Proposed Method 21.¹ The instrument performance evaluations are included as Tables 4-1 and 4-2. Method 21 only requires the exact concentration to be recorded if it is over the leak definition specified in the applicable standard, but since this effort was more oriented to standards support than to regulatory monitoring, the maximum screening value was recorded for all sources.

The soap scoring method was modeled after a method used in screening fugitive emissions from petroleum production facilities.² The soap solution was prepared from 100 ml. of rug shampoo (HR Professional Formula) mixed with a gallon of either distilled water or a mixture of distilled water and ethylene glycol. The solution was applied using a common garden sprayer.

Each source was sprayed with soap solution, being sure to coat all areas of potential leakage. A careful inspection was then conducted to detect any bubble formation. A soap score was then assigned based on the estimated bubble volume generated in a six-second observation:

¹Federal Register, v46 n2 Monday Jan. 5, 1981, pp. 1160.

²Eaton, W.S., et al. "Fugitive Hydrocarbon Emissions from Petroleum Production Operations." API Publication No. 4322, American Petroleum Institute (1980).

TABLE 4-1
CALIBRATION ERROR DETERMINATION

Instrument ID	<u>Century Systems OVA-108</u>			
Serial Number:	2158			
Calibration Gas Data				
1-9-81				
Calibration = <u>7990 ppmv</u>				
Run No.	Instrument Meter Reading, ppm	Difference ⁽¹⁾ ppm		
1.	8000	-10		
2.	8200	-210		
3.	3000	-10		
4.	8000	-10		
5.	8000	-10		
6.	8400	-410		
7.	8100	-110		
8.	8500	-510		
9.	8200	-210		
Mean Difference		<u>-166</u>		
Calibration Error = <u>$\frac{\text{Mean Difference}^{(2)}}{\text{Calibration Gas Concentration}} \times 100$</u> <u>-2.1</u>				
<u>(1) Calibration Gas Concentration - Instrument Reading</u>				

TABLE 4-2
RESPONSE TIME DETERMINATION

Century Systems OVA-108
Instrument ID Serial Number: 2158
Calibration Gas Concentration 7990 ppmv

1-9-81

90% Response Time:

Without Dilution Probe

1. 5.8 Seconds

2. 7.0 Seconds

3. 5.5 Seconds

With Dilution Probe

7.1 Seconds

9.5 Seconds

7.0 Seconds

Mean Response Time 6.1 Seconds 7.8 Seconds

<u>Soap Score</u>	<u>Estimated Bubble Volume</u>
0	No detectable bubbles
1	0 to 1 cc/6 sec
2	1 to 10 cc/6 sec.
3	10 to 100 cc/6 sec.
4	>100 cc/6 sec.

The screening methods outlined above were used on every accessible source except for flanges. Approximately 20 percent of the flanges were screened because of their large population. Sources screened included valves, flanges, pumps, compressors, open-ended lines, drains, relief valves, and other miscellaneous sources. The survey was conducted on a line-by-line basis to minimize the time required to obtain process data, such as the composition and phase of the material in the line. For those sources that were not screened due to either physical inaccessibility or safety problems which prevented close approach, entries were recorded on the data sheets to insure that a complete source inventory was obtained.

APPENDIX A

TABLE A-1: Full Data Listing

TABLE A-2: Listing of Coding Conventions

TABLE A-3: Material Coding Sheets

TABLE A-4: QA/QC Data

TABLE A-1.
FULL DATA LISTING

Screening Data Sheet

*W R H = 1
M A C = 2
S E H = 3
F A S = 4*

Date

19	44	80		
1	3	4	5	6

Plant /

Process Unit 1
8-10

Screening Team **1 2 3**
11 12 13
5 0 0

Instrument I.D. 14 15

Ran Gns Inlet

Screening Data Sheet

Date

10	06	80			
1	2	3	4	5	6

Plant i
z 8

Process Unit

Screening Team **1 2 3**
11 12 13

Instrument I.D. /
14 15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22									
17	11			0101			02			
18	12			0101		11	02			
19	13			021		11	01			
20	14			010		11	02			
21	15			0101		11	01			
22	16			0101		11	01			
23	17			0101		11	01			
24	18			1010		11	02			
25	19			10		11	01			
26	20			01		11	01			

River Gres Inlet

۷۰۰-۸۵-۰۰۳۲

Screening Data Sheet

 Date

1	6	6	6	8	0
1	2	3	4	5	6

 Plant

7	i
7	8

 Process Unit

9	1
9	10

 Screening Team

1	2	3
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									31	32
16	22	29	31 32		36	37	38	39	40/60	
17.1	17.0	1	1	1	1	1	02			
17.2	10.2	1	1	1	1	1	01			
17.3	5.0	101	1	1	1	1	03			
17.4	0.10	1	1	1	1	1	03			
17.5	0.10	1	1	1	1	1	03			
17.6	2.0	1	1	1	1	1	12			
17.7	0.12	1	1	1	1	1	01			
17.8	2.0	1	1	1	1	1	02			
17.9	1.0	1	1	1	1	1	02			
18.0	0	111	1	1	1	1	02			

19 Mar 2025 Test

Screening Data Sheet

Date

1	2	3	4	5	6
15	16				

 8 0

Plant *i*
7 8

Process Unit / 9 10

Screening Team

1	2	3
11	12	13

Instrument I.D. 1
14 15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32						
31	10121				/ /	0	1			
32	10111				/ /	1	02			
33	100001				/ /	1	31			
34	200101				/ /	1	02			
35	450101				/ /	1	22			
36	0101				/ /	1	02			
37	0111				/ /	1	02	5.1.G.I.T. GLASS		
38	1000				/ /	1	01			
39	0102				8		02			
40	032				81	-	1			

Raw Gas Inlet

10-80-00083
Condenser
Kings

Screening Data Sheet

 Date

1	6	6	8	0	
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	2	3
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Comments									
		Source	Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	40/60	59/79
16	22	29	31	32	81	01					
	41										
	42										
	43										
	44										
	45										
	46										
	47										
	48										
	49										
	50										

Drip Condensate

Raw Gas Inlet

38080-000

Screening Data Sheet

Date

10	26	80			
1	2	3	4	5	6

Plant

1	2
7	8

Process Unit

1	1
9	10

Screening Team

1	2	3
11	12	13

Instrument I.D.

11	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
51	4.00	101			11	01				
52		0101			11	01				
53		0101			11	01				
54		0011			11	02				
55		0101			11	01				
56	10.00.01	101			11	42				
57	8.00.01				11	02				
58	0011				11	01				
59	6.0.0011				11	02	TAPED			
60	0101				11	02				

Rm G-23 Tn/ef

Screening Data Sheet

 Date

1	0	4	6	8	0
1	2	3	4	5	6

 Plant

7	8
---	---

 Process Unit

9	10
---	----

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

1	4	15
---	---	----

Source I.D.	Screening Value	Comments							
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	
16	22	29	31 32		36	37	38	39	40/60
6,1	0 1 0 2	71	0 1						59/79
6,2	0 1 0 2	71	0 1						
6,3	0 0 1 2	71	0 2						
6,4	0 0 1 2	71	0 2						
6,5	0 1 0 2	71	0 1						
6,6	0 0 1 2	71	0 2						
6,7	0,0,0 4 0 2	71	0 4						
6,8	0 1 0 2	71	1 1						
6,9	0 0 1 2	71	0 2						
7,0	0 1 0 2	71	0 2						

N/A / G-0504 / 04/19 / 11/0

Screening Data Sheet

 Date

1	4	9	6	8	0
1	2	3	4	5	6

 Plant

7	8
---	---

 Process Unit

9	10
---	----

 Screening Team

7	2	1
11	12	13

 Instrument I.D.

11	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments											
									16	22	29	31	32	36	37	38	39	40/60	59/79	
7.1	7000102	71	01																	
7.2	0012	71	02																	
7.3	0102	71	01																	
7.4	0102	71	11																	
7.5	0012	71	02																	
7.6	0102	71	02																	
7.7	0012	71	02																	
7.8	0102	71	02																	
7.9	0012	71	01																	
8.0	0102	71	02																	

11/14/2008 / 10/19/2008 / 10/19/2008

Screening Data Sheet

 Date

1	6	4	6	8	0
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

1	
9	10

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Comments								
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation		
16	22	29	31 32	36	37	38	39	40/60		59/79
81	1032	71	21							
82	10000032	71	-2	L1QUD						
83	0122	71	01							
84	10001032	71	-2							
85	0122	71	01	HIGH BACK GRUND						
86	0122	71	02							
87	0012	71	02							
88	0122	71	02							
89	100102	71	02							
90	4000032	71	-2							

Not Classified / Not Loading /

Screening Data Sheet

 Date

1	6	6	8	0	
1	2	3	4	5	6

 Plant

0	1
7	8

 Process Unit

9	10
---	----

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

11	
14	15

Source I.D.	Screening Value										Comments
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation			
16	22	29	31	32	36	37	38	39	40/60	59/79	
9.1	0 0 3 2			7 1	-	- 2					
9.2	0 0 1 2			7 1	0 1						
9.3	0 0 1 2			7 1	0 1						
9.4	0 1 2 2			7 1	0 2						
9.5	0 0 3 2			7 1	-	- 2					
9.6	8 0 1 1			1 1	0 2	HIGH BACKGRN	200 PPM				
9.7	4,0,0,0,1,0,1			1 1	3 1						
9.8	0 0 1 1			1 1	0 1						
9.9	1,0,0,0,0,1,1,0,1			1 1	4 1						
1.0.0	0 0 1 1			1 1	0 1						

 Nat. Gasoline Loading
line

Raw Gas into "A"

Screening Data Sheet

 Date

10	94	80			
1	2	3	4	5	6

 Plant

7	8
---	---

 Process Unit

0	1
9	10

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Comments									
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation			
16	22	29	31	32	36	37	38	39	40/60		59/79
11101	110011111101						01				
11102	1100001101						11	42			
1103	110121111102										
1104	110121111103										
11105	111000111102										
11106	1100001101						11	41			
11107	1100001101						11	41			
11108	1110001101							01			
11109	1110001101							01			
11110	1100001101						11	02			

Row 6 or site "A"

Screening Data Sheet

 Date

1	0	0	4	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

3	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32	36	37	38	39	40/60	59/79
11111111	11000101	011			1	1	4	2		
11111112	11300001	011			1	1	0	2		
11111113	114000101	011			1	1	2	2		
11111114	11010	010			1	1	0	2		
11111115	11073	010			1	1	0	2		
11111116	11010	010			1	1	0	2		
11111117	110011	011			1	1	0	1		
11111118	110201	011			1	1	0	2		
11111119	110031	011			1	1	-	2		
11111120	110101	010			1	1	0	2		

Run G date 6/19/01

Screening Data Sheet

Date

1	0	0	6	8	0
1	2	3	4	5	6

Plant

7	8
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Process Unit

9	10
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Screening Team

3	1	2
11	12	13

Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	1	1	-	2		
1.2.1	0	03	1	1	1	1	-	2		
1.2.2	0	10	1	11	0	2				
1.2.3	0	02	1	11	0	2				
1.2.4	0	01	1	11	0	2				
1.2.5	3.0	0	01	11	0	1				
1.2.6	11.0	0	0101	11.4	1	1	-	1		
1.2.7	10.0	0	1	11	1	0	1			
1.2.8	10	0	1	11	1	0	2			
1.2.9	10	10	1	11	1	0	2			
1.3.0	10	10	1	11	1	1	0	2		

Row C on sheet A

Screening Data Sheet

Date

10	06	80			
1	2	3	4	5	6

Plant

1	7	8
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Process Unit

1	9	10
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Screening Team

3	1	2
11	12	13

Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Comments								
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation		
16	22	29	31	32	36	37	38	39	40/60	59/79
131	101	101	101	101	111	111	02	111	111	111
132	450	101	101	101	111	111	02	111	111	111
133	350	101	101	101	111	111	02	111	111	111
134	100	101	101	101	111	111	02	111	111	111
135	100	101	101	101	111	111	02	111	111	111
136	150	101	101	101	111	111	02	HIGH BACK GROUND	PPM	111
137	10000	101	101	101	111	111	02	111	111	111
138	100	101	101	101	111	111	02	111	111	111
139	101	101	101	101	111	111	02	HIGH BACK GROUND	111	111
140	1010	101	101	101	111	111	02	111	111	111

P.M. C.G. 10/20/83

Screening Data Sheet

Date

10	96	80			
1	2	3	4	5	6

Plant

7	8
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Process Unit

9	10
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Screening Team

3	12	
11	12	13

Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									31	32
16	22	29	31	32	36	37	38	39	40/60	59/79
1.1.1.4.1	001111101								H, H, B, A, C, K, G, R, O, O, N, D	
1.1.1.4.2	1001111101									
1.1.1.4.3	100001101								42	
1.1.1.4.4	1.50010101								01	
1.1.1.4.5	110001011101								42	
1.1.1.4.6	1100010101								02	
1.1.1.4.7	11000101145								41	DOUBBLE PORTED DBL TR IM GRADERS CTL. VALVE
1.1.1.4.8	11001								02	
1.1.1.4.9	11201020								02	
1.1.1.5.0	11301003								-2	

Raw G chart "A"

5800-10

Screening Data Sheet

Date **10/06/80**
 1 2 3 4 5 6

Plant **1**
 7 8

Process Unit **1**
 9 10

Screening Team **2 1 3**
 11 12 13

Instrument I.D. **11**
 14 15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
1.5.1	3,0,0	1,2,1		1,1	0,1					
1.5.2	1,7,0,0,0,0	3,1		1,1	1,1	-2				
1.5.3	1,0,1			2,1	0,1	H,I,G,H ,B,A,C,K,G,R,O,U,N,D				
1.5.4	1,5,0,0	3,1		2,1	1,1	-1				
1.5.5	2,5,0,0	1,0,1		2,1	2,1					
1.5.6	1,1,0,0,0,0	1,1		2,1	3,2					
1.5.7	1,0,0,0,0,1	1,0,1		2,1	4,1					
1.5.8	0,1,1			2,1	0,2					
1.5.9	3,0,0	1,1		2,1	0,2					
1.6.0	7,0,0,0	1,0,1		2,1	2,1					

Screening Data Sheet

 Date

1	4	6	8	0	
1	2	3	4	5	6

 Plant

7	8
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 Process Unit

9	10
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 Screening Team

2	1	3
11	12	13

 Instrument I.D.

14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments			
									16	22	29	
									31	32	36	37
									38	39	40/60	59/79
16.1	1.0	1	1	21	02							
16.2	1.3,0,0	1	1	21	03							
16.3	1.5,0,0,0	1	0	21	22							
16.4	1.0,0,0,0,1	1	0	21	41							
16.5		1	0	21	02	HIGH	BKG RD					
16.6	1.2,5,0,0	1	0	21	12							
16.7	1.0	1	1	21	02							
16.8	1.1,0,0,0,0,1	2	1	21	41							
16.9	1.1,0,0,0,0,1	1	1	21	02							
17.0	1.1,0,0,0,0,1	1	0	21	42							

Product C'nd pro 4A

Screening Data Sheet

 Date

1	0	9	✓	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	13	2
11	12	13

 Instrument I.D.

1	1
14	15

16	Source I.D.	22	Screening Value		29	31	32	Material Code	36	37	38	39	Comments	
			Source Type	Service										
16	171	130101010	1	1				21		31				40/60 59/79
172		50101	1	1	21					02				
173		001	1	1	21					02				
174		115000101	1	1	21					32				
175		1950001	1	1	21					31	TUBING CONNECTOR			
176		180001111	1	1	21					02				
177		10011	1	1	21					02				
178		10101	1	1	21					02				
179		10101	1	1	21					02				
180		10101	1	1	21					02				

Product Gas from Absorbers

Screening Data Sheet

 Date

1	9	9	7	8	0
1	2	3	4	5	6

 Plant

0	1
7	8

 Process Unit

0	1
9	10

 Screening Team

1	3	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments		
									36	37	
16	22	29	31	32	36	37	38	39	40/60		
18.1	0.0	0.1	1	21	01	EN					59/79
18.2	11.0,0,0,0,1	21	1	21	41	CYCLE	3	C-1	3	W.A.Y.	V
18.3	11.0,0,0,0,1	21	1	21	42	CYCLE	3	C-2	3	W.A.Y.	V
18.4	11.0,0,0,0,1	21	1	21	42	CYCLE	3	C-3	3	W.A.Y.	V
18.5	11.0,0,0,0,1	21	1	21	41	CYCLE	3	H-5	3	W.A.Y.	V
18.6	11.0,0,0,0,1	21	1	21	41	CYCLE	3	R-4	3	W.A.Y.	V
18.7	11.0,0,0,0,1	21	1	21	21	CYCLE	3	R-2	3	W.A.Y.	V
18.8	11.0,0,0,0,1	21	1	21	-1	CYCLE	3	R-1	3	W.A.Y.	V
18.9	11.0,0,0,0,1	21	1	21	1-1	CYCLE	3	M-5	3	W.A.Y.	V
19.0	11.0,0,0,0,1	21	1	21	1-1	CYCLE	3	M-6	3	W.A.Y.	V

Screening Data Sheet

Date

10	07	80			
1	2	3	4	5	6

Plant 01
7 8

Process Unit D I

Screening Team **132**
11 12 13

Instrument I.D. /
14 15

Screening Data Sheet

 Date

1	0	7	8	0	
1	2	3	4	5	6

 Plant

0	1
7	8

 Process Unit

0	1
9	10

 Screening Team

1	3	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments					
									36	37	38	39	40/60	
16	22	29	31	32										59/79
18,6	25,0,0	21	1	21	21	21	21	CYCLE 4 R-4						
18,7	10,0,0,1	21	1	21	21	21	21	CYCLE 4 R-2 HIGH BACK						
18,8	10,0,0,1	21	1	21	21	21	-1	CYCLE 4 R-1						
18,9	10,0,0,1	21	1	21	11	-1	1	CYCLE 4 m-5						
19,0	10,0,0,1	21	1	21	11	-1	1	CYCLE 4 m-6						
19,1	10,0,0,1	21	1	21	42	42	42	CYCLE 4						
19,2	10,0,0,1	21	1	21	42	42	42	CYCLE 4 R-3 FLAME 0U						
19,3	10,0,0,1	21	1	21	32	32	32	CYCLE 4 H-4 FLAME 0U						
19,4	10,0,0,1	21	1	21	42	42	42	CYCLE 4 H-3 FLAME 0U						
19,5	10,0,0,1	21	1	21	42	42	42	CYCLE 4 H-2 FLAME 0U						
19,6	10001	21	1	21	42	42	42	CYCLE 4 H-1 FLAME 0U						

Screening Data Sheet

 Date

1	4	5	7	8	0
1	2	3	4	5	6

 Plant

0	1
7	8

 Process Unit

0	1
9	10

 Screening Team

3	1	
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
111182	11000001	21	i	21	21	41	CYCLE E1. C-1			
111183	11000001	21	1	21	21	42	CYCLE E1. C-2			
111184	11000001	21	1	21	21	42	CYCLE E1. C-3	FILE AME B1		
111185	11000001	21	1	21	21	41	CYCLE E1. H-5	OWN OUT		
111186	11150000	21	1	21	21	41	CYCLE E1. R-4	R-4		
111187	11000001	21	1	21	21	41	CYCLE E1. R-2			
111188	11000001	21	1	21	21	41	CYCLE E1. R-1			
111189	11000001	21	1	21	21	11	CYCLE E1. M-5			
111190	11000001	21	1	21	21	11	CYCLE E1. M-6			
111191	11000001	21	1	21	32		CYCLE E1. 1			

Screening Data Sheet

 Date

10	0	7	8	0	
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	
9	10

 Screening Team

3	1	2
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments												
									16	22	29	31	32	36	37	38	39	40/60	59/79		
1.1.1.1.9.2	1.1.0.0.0.0.0.1	21	1	21	1	42	42	CYCLE 1H-3													
1.1.1.1.9.3	1.1.0.0.0.0.0.1	21	1	21	1	92	92	CYCLE 1H-4	FLAME OUT												
1.1.1.1.9.4	1.1.0.0.0.0.0.1	21	1	21	1	42	42	CYCLE 1H-3	FLAME OUT												
1.1.1.1.9.5	1.1.0.0.0.0.0.1	21	1	21	1	42	42	CYCLE 1H-2													
1.1.1.1.9.6	1.1.0.0.0.0.0.1	21	1	21	1	42	42	CYCLE 1H-1													
1.1.1.1.9.7	1.1.0.0.0.0.0.1	21	1	21	1	02	02														
1.1.1.1.9.8	1.1.0.0.0.0.0.1	21	1	21	1	02	02														
1.1.1.1.9.9	1.1.0.0.0.0.0.1	21	1	21	1	02	02														
1.1.1.2.0.0	1.1.0.0.0.0.0.1	21	1	21	1	02	02														
1.1.1.2.0.1	1.1.0.0.0.0.0.1	21	1	21	1	02	02														

Screening Data Sheet

 Date

1	9	2	7	8	0
1	2	3	4	5	6

 Plant

6	1
7	8

 Process Unit

0	1
9	10

 Screening Team

3	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
182 201	500	21	1	21	21	41	CYCLE	2	C-1	
183	110000001	21	1	21	21	42	CYCLE	2	C-2	
184	10000001	21	1	21	21	42	CYCLE	2	C-3	
185	10000001	21	1	21	21	41	CYCLE	2	H-5	
186	10000001	21	1	21	21	11	CYCLE	2	R-4	
187	9100	21	1	21	21	11	CYCLE	2	R-2	
188	90000	21	1	21	21	41	CYCLE	2	R-1	
189	—	21	1	21	21	11	CYCLE	2	m-5	
190	—	21	1	21	21	11	CYCLE	2	m-6	
191	110000001	21	1	21	21	42	CYCLE	2	i	

Screening Data Sheet

 Date

1	0	9	7	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	2	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments					
									36	37	38	39	40/60	59/79
16	22	29	31	32										
19.2	110,0,0,1	221	1	21	42	CYCLE	E	2	R	-3				
19.3	110,0,0,1	221	1	21	42	CYCLE	E	2	H	-4				
19.4	110,0,0,1	221	1	21	42	CYCLE	E	2	H	-3				
19.5	110,0,0,1	221	1	21	42	CYCLE	E	2	H	-2				
19.6	110,0,0,1	221	1	21	42	CYCLE	E	2	H	-1				
20.2	110,221	1	1	21	01									
20.3	110,0,11	1	1	21	02									
20.4	110,0,11	1	1	31	01	HOT	FIL	IAN	GIE					
20.5	110,0,21	1	1	61	01									
20.6	110,0,11	1	1	61	02									

Screening Data Sheet

Date

10	07	80			
1	2	3	4	5	6

Plant 7 / 8

Process Unit 1
9 10

Screening Team

3	1	2
11	12	13

Instrument I.D. 1
14 15

Screening Data Sheet

Date

10	97	80			
1	2	3	4	5	6

Plant 7 / 8

Process Unit 1
9 10

Screening Team 3 1 2
11 12 13

Instrument I.D.

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14 15

Screening Data Sheet

 Date

1	0	9	8	0	
1	2	3	4	5	6

 Plant

7	8
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 Process Unit

9	10
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 Screening Team

1	2	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Comments								
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation		
16	22	29	31	32	36	37	38	39	40/60	59/79
226	10011	0	011	061	1	12				
227	10011	0	011	61	1	01				
228	15001	0	011	61	1	22				
229	10011	0	111	61	1	02				
230	10201	0	201	61	1	02				
231	10201	0	201	61	1	02				
232	02011	0	201	61	1	02				
233	10011	0	011	61	1	01				
234	10011	0	011	61	1	01				
235	1200010101	0	011	61	1	42				

Screening Data Sheet

 Date

1	6	5	7	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32					38	39
									40/60	59/79
23.6		0.1	1	6	1	0	2			
23.7	2.00	1.2	1	6	1	0	2			
23.8	20.0	0.1	1	6	1	0	1	TAPED CONNECTION		
23.9	1.00	0.1	1	6	1	4	2			
24.0	15.00	0.3	1	6	1	1	1			
24.1	1.00	2.2	1	6	1	0	1			
24.2	1.20	0.03	1	6	1	2	2			
24.3	7.00	2.5	1	6	1	0	1	DIA PH RAM REGULATOR		
24.4	1.00	1.1	1	6	1	0	1			
24.5	0.10	1	6	1	0	1				

Screening Data Sheet

 Date

1	0	6	7	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32	36	1	2	1		
	246	110000	741	61	1	21				
	247	110000	075	61	1	02	DIA PHARM REGULATOR			
	248	110000	0741	61	1	02				
	249	110000	200011	61	1	02				
	250	110000	0201	61	1	02				
	251	110000000111	21	61	1	41				
	252	110000000111	21	61	1	01				
	253	110000000111	0121	61	1	03				
	254	110000000111	031	61	1	03				
	255	110000000111	2010011	61	1	01				

Screening Data Sheet

 Date

1	2	3	4	5	6
9	1	8	0		

 Plant

7	8
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 Process Unit

9	10
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 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	
16	22	29	31	32						59/79
256	500	101		61	1	01				
257	400	121		61	21					
258	003	1		61	-2					
259	0001101	1101		61	41					
260	0001121			61	41					
261	500011			61	01					
262	300111			61	01					
263	0001111			61	43					
264	0051			61	01					
265	0741			61	41	DIA, PH, AGM				

Screening Data Sheet

 Date

1	0	7	8	0	
1	2	3	4	5	6

 Plant

7	8
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 Process Unit

1	1
9	10

 Screening Team

2	2	0
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments											
									16	22	29	31	32	36	37	38	39	40/60	59/79	
266	1,0,0,0,0,1	011		61	41	CYCLE 1 START														
267	1,0,0,0,0,1	011		61	01															
268	1,0,0,0,0,1	0791		61	01	DIA PHRAGM														
269	1,0,0,0,0,1	0121		21	02															
270	1,0,0,0,0,1	0101		21	01															
271	1,0,0,0,0,1	101		211-1																
272	1,0,0,0,0,1	0101		21	02															
273	1,0,0,0,0,1	101		21	-2															
274	1,0,0,0,0,1	0101		21	-1															
275	1,0,0,0,0,1	31		21	-2															

Screening Data Sheet

 Date

10	9	7	8	0	
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

1	9	10
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 Screening Team

2	2	1
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Screening Data Sheet

 Date

10	97	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

1	9	10
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 Screening Team

2	2	1
11	12	13

 Instrument I.D.

1	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									31	32
16	22	29	31	32	36	37	38	39	40/60	59/79
	286			0 11	41	02				
	287			0 11	41	02				
	288			0 741	21	01				
	289			0 11	21	02				
	290			0 100	41	02				
	291			0 101	41	02				
	292			0 101	41	02				
	293			0 101	41	02				
	294			0 101	41	02				
	295			0 741	21	01	DIA PRAGM VALVE			

High Pressure Separator

Screening Data Sheet

 Date

10	9	8	0		
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

1	
9	10

 Screening Team

2	2	1
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32					40/60	59/79
	29,6	10	1	1	21	0	2			
	29,7	1,000,000	1	1	21	4	2			
	29,8	0	1	0	41	0	2			
	29,9	3,000,000	1	0	41	0	2			
	30,0	2,000	3	1	41	-	3			
	30,1	0	3	1	41	-	2			
	30,2	4,0	1	0	41	0	2			
	30,3	0	1	1	41	0	1			
	30,4	0	1	1	41	0	1			
	30,5	0	1	1	41	0	3			

Screening Data Sheet

 Date

10	9	7	8	0	
1	2	3	4	5	6

 Plant

7	i	8
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 Process Unit

9	1	0
9	10	

 Screening Team

2	2	1
11	12	13

 Instrument I.D.

1	/
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments									
									40/60	59/79								
16	22	29	31	32	36	37	38	39	40/60	59/79								
	306	0	1	1	41	0	3											
	307	1,8,0,0	741	41	11	L	O	N	T	R	O	C	U	A	V	E	N	T
	308	0	1	1	21	0	3											
	309	2,0,0	11	41	0	2												
	310	0	182	51	0	2												
	311	0	102	51	0	2												
	312	0	12	51	0	2												
	313	0	122	51	0	2												
	314	0	32	51	0	2												
	315	0	102	51	0	2												

Screening Data Sheet

 Date

1	9	0	7	8	0
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

1	
9	10

 Screening Team

2	2	1
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments		
									36	37	38
16	22	29	31	32	36	37	38	39	40/60		
316	100	32	51	2							
317	1000	741	21	-1	CONTROL VALVE VENT						
318	0	11	21	01							
319	0	11	21	01							
320	0	101	21	01							
321	0	31	21	-2							
322	0	12	51	0	HP SEP BOOT						
323	0	122	51	12							
324	0	122	51	01							
325	0	12	51	01							

Screening Data Sheet

 Date

10	07	80			
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

1	
9	10

 Screening Team

121		
11	12	13

 Instrument I.D.

11	
14	15

Source I.D.	Screening Value	Comments							
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	
16	22	29	31	32	36	37	38	39	40/60
326	0102				41	01			
327	012				41	02			
328	0122				51	01			
329	0122				51	02			
330	012				51	02			
331	012				51	02			
332	0112				51	02			
333	32				51	3	-		
334	012				51	02			
335	0121				21	02	HIGH BACK LIO LEAK		

Screening Data Sheet

 Date

10	47	80			
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

1	
9	10

 Screening Team

2	2	1
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32						
336	1000011741	21	41		CONTROL VALVE VENT					
337	01112102									
338	01215101		L1	LIQUID LEAK IN AREA						
339	100115101				338-344					
340	00115102									
341	101215103									
342	101215103									
343	100315103									
344	1000012215142		L1	LIQUID LEAK-HOLE IN VAPLINE						
345	00115102									

Screening Data Sheet

 Date

1	0	9	4	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Comments									
		Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation			
16	22	29	31	32	36	37	38	39	40/60		59/79
346	0121	51	01								
347	0121	51	02								
348	0011	51	02								
349	0121	51	01								
350	0012	51	02								
351	0122	51	02								
352	0122	51	02								
353	0012	71	02								
354	0032	71	-2								
355	0011	61	02								

Screening Data Sheet

 Date

1	9	9	7	8	0
1	2	3	4	5	6

 Plant

7	1
8	

 Process Unit

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 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	
356	0121	61	02							
357	0011	61	02							
358	0121	61	02							
359	0011	61	01							
360	300100111	61	32							
361	100111	61	02							
362	1200032	71	-2							
363	0012	71	01							
364	10122	71	01							
365	0012	71	02							

Screening Data Sheet

 Date

1	0	1	2	3	4	5	6
							8 0
1	2	3	4	5	6		

 Plant

7	8

 Process Unit

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 Screening Team

		1
11	12	13

 Instrument I.D.

14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
366	0 1 2 2			7 1	0	3				
367	0 0 3 2			7 1	-	3				
368	0 1 2 2			7 1	0	1				
369	0 0 1 2			7 1	0	1				
370	0 1 2 2			7 1	0	1				
371	0 0 1 2			7 1	0	1				
372	0 0 1 2			7 1	0	1				
373	0 1 2 2			7 1	0	3				
374	0 1 2 2			7 1	0	1				
375	0 0 1 2			7 1	0	2				

Screening Data Sheet

 Date

1	0	0	7	8	0
1	2	3	4	5	6

 Plant

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7	8

 Process Unit

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 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31 32		36	37	38	39	40/60	
376	1	0	0 1	2	7	1	0	2		
377	1	5	0 0 0	0 1 2	7	1	2	1		
378	1	0	1 2 2		7	1	0	1		
379	1	0	0 1 2		7	1	0	2		
380	1	0	0 1 2		7	1	0	2		
381	1	0	1 0 2		7	1	0	1		
382	1	0	1 0 2		7	1	0	1		
383	1	0	0 1 2		7	1	0	2		
384	1	3	0 1 0 1 0 2		7	1	0	1		
385	1	0	0 1 2		7	1	0	2		

Screening Data Sheet

 Date

1	Q	7	8	0	
1	2	3	4	5	6

 Plant

7	1
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 Process Unit

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 Screening Team

11	1	2
12	13	

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments
					36	37	38	39	
16	22	29	31	32	36	1	0	3	40/60 59/79
	386		0102	71					
	387		0011	61		02			
	388		3000031	61		-2			
	389		12000051	61		-12			
	390		0011	21		01			
	391		10000179	21		-2			
	392		0101	21		01			
	393		3000010111	21		31			
	394		0081	21		-3			
	395		0011	21		02			

Screening Data Sheet

Date

10	11	12
13	14	15
16	17	18

 80
1 2 3 4 5 6

Plant 7 8

Process Unit 1
9 10

Screening Team

1	1	2
11	12	13

Instrument I.D.

1	

14 15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments
16	22	29	31	32	36	37	38	39	40/60
396	11000001	10	10	1	2	1	0	1	
397	11000001	10	1	1	2	1	4	1	
398	11000001	791			2	1	-2		
399	11000001	0011			2	1	02		
400	11000001	10	10	1	2	1	02		
401	11000001	10	01	1	2	1	02		
402	11000001	10	1	1	2	1	32		
403	11000001	10	01	1	2	1	0	1	
404	11000001	25	1	1	2	1	-1		FLAME OUT
405	11000001	00	1	1	2	1	01		

Screening Data Sheet

 Date

1	0	9	7	8	0
1	2	3	4	5	6

 Plant

0	1
7	8

 Process Unit

1	1
9	10

 Screening Team

1	1	2
11	12	13

 Instrument I.D.

1	1
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
406	001	001	1	2101	01					
407	001	001	1	2101	01					
408	100001	101	1	2101	01					
409	600211	101	1	2101	01					
410	1100001	011	1	2101	01					
411	40074	51	1	2101	01					
412	001	001	1	2101	01					
413	1300010	011	1	2101	01					
414	1500010	011	1	2101	01					
<hr/>										

Screening Data Sheet

Date 10 31 80
1 2 3 4 5 6

Plant C 1
7 8

Process Unit 1
9 10

Screening Team

1	1	2
11	12	13

Instrument I.D. /
14 15

Screening Data Sheet

 Date

1	2	3	4	5	6
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8 0

 Plant

7	8
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 Process Unit

9	10
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 Screening Team

3	2	1
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11	12	13
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 Instrument I.D.

2

14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments
					36	37	38		
16	22	29	31	32				40/60	59/79
423	100001111				11	4	2		
424	100001111				11	0	1		
425	1000031				11	1	-1		
426	100001101				11	4	1		
427	10011				11	0	2		
428	1100001101				11	4	1		
429	1100001101				11	2	2		
430	1011111101				11	1	0		
431	0011111102				11	1	0		
432	1100001211				11	4	1		

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

7	8
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 Process Unit

2	
9	10

 Screening Team

3	3	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									29	31 32
16	22								36	37 38 39 40/60
433		0	101		11	01				
434		0	11		11	02				
435		0	11		11	02				
436		0	101		11	01				
437		0	11		11	02				
438	100001101						41			
439	100101						02			
440		0101			11	02				
441		0	11		11	02				
442	100001101						41			

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

3	4	1
11	12	13

 Instrument I.D.

2	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									
443	0	11			11	02							
444	0211				11	01	Liquid Service When Operating						
445	0131				11	01	Liquid Service When Operating						
446	0131				11	01	Liquid Service When Operating						
447	0131				11	01	Liquid Service When Operating						
448	0111				11	01	Liquid Service When Operating						
449	1,0,0,0,0,10,1				11	02	1,0,0,0,0, BACK GROUND						
450	00741				11	01							
451	0111				11	01							
452	1,0,0,0,0,1,10,1				11	42	Liquid Service When Operating						

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

2	
9	10

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									29	31
16	22	29	31	32	36	37	38	39	40/60	59/79
453	01111102									
454	01011102	LIQUID SERVICE WHEN OPERATING								
455	01211102	LIQUID SERVICE WHEN OPERATING								
456	03111101	Liquid Service When Operating								
457	01011101									
458	01111102									
459	01111101									
460	01011102									
461	200101102									
462	01011102									

Screening Data Sheet

 Date

1	0	9	8	0	
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

2	
9	10

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

1	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32	36	37	38	39	40/60	59/79
463	100001	11		11	4	2				
464	0131			11	0	2				
465	031			11	-	1				
466	100001	51		11	42	ONE INCH OPENING				
467	011			11	-	01				
468	100001	101		11	41					
469	100001	101		11	42					
470	011			11	02					
471	100001	101		11	42					
472	011			11	01					

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

2	
9	10

 Screening Team

9	2	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32						
473	90,0,0,0	10	1		1	3	1			
474	100,0,0,1	10	1		1	4	1			
475	40,0	11			1	1	02			
476	6,0,0,0	10			1	3	2			
477	0	11			1	1	01			
478	1,0,0,0,0,1	22	1		1	1	05	MOTORIZED CONT PLUG		
479	10,0,0,0,1	11			1	1	42			
480	0	11			1	1	01			
481	1,0,0,0,0,1	7	5		1	1	42	NEEDLE VALVE WITH SIDE VENT		
482	10,0,0,0,1	3	1		1	1	42			

Screening Data Sheet

 Date

10	0	8	0
1	2	3	4
5	6		

 Plant

1	
7	8

 Process Unit

2	
9	10

 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
483	101	101	11	11	0	2				
484	101	101	11	11	1	0	2			
485	011	11	11	11	1	0	1			
486	300	11	11	11	1	1	1			
487	1100001	74	1	1	1	45	F0			
488	1100001	10	1	1	1	41	F0			
489	011	11	11	11	1	0	2			
490	1100001	10	1	1	1	41	F0			
491	011	11	11	11	1	0	2			
492	0101	11	11	11	0	2				

Screening Data Sheet

Date

40	48	80			
1	2	3	4	5	6

Plant 7 8

Process Unit 2

Screening Team 3 2 1
11 12 13

Instrument I.D.

	2
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 14-15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
493	0	31			11		05			
494	0101				11		02			
495	0101				11		02			
496	011				11		02			
497	100000174				11		-2		INST BOX	
498	101				11		02		HIGH BACKGROUN D	
499	101				11		03		HIGH BKGRND.	
500	011				11		02			
501	100000121				11		11		41	
502	100000111				11		11		31	

Screening Data Sheet

 Date

10	48	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

3	2	1
11	12	13

 Instrument I.D.

2	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									
503	0	1	1	1	1	1	0	2	Liquid Service When	Operating			
504	0	1	1	1	1	1	0	2	Liquid Service When	Operating			
505	0	1	3	1	1	1	0	1	Liquid Service When	Operating			
506	15000	10	1	1	1	1	1	1	Liquid Service When	Operating			
507	0	1	1	1	1	1	0	2	Liquid Service When	Operating			
508	0	1	0	1	1	1	0	1	Liquid Service When	Operating			
509	0	3	1	1	1	1	-2	1	Liquid Service When	Operating			
510	0	1	0	1	1	1	0	1	Liquid Service When	Operating			
511	0	1	3	1	1	1	0	2	Liquid Service When	Operating			
512	4000	1	1	1	1	1	0	2	Liquid Service When	Operating			

Screening Data Sheet

 Date

10	98	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

3	2	1
11	12	13

 Instrument I.D.

7	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22									
513	0741				11	01	L,I,Q,U,I,D, S E R V I C E W H E N, O P E R A T I N G			
514	0111				11	02	L,I,Q,U,I,D			
515	0131				11	01	L,I,Q,U,I,D			
516	031				11	-1	L,I,Q,U,I,D		(S A M E)	
517	0131				11	01	L,I,Q,U,I,D		(C O M M E N T)	
518	011				11	00	L,I,Q,U,I,D			
519	0121				11	01	L,I,Q,U,I,D			
520	200				11	01	L,I,Q,U,I,D			
521	10121				11	01	L,I,Q,U,I,D			
522	501010				11	21	L,I,Q,U,I,D	N	N	

Screening Data Sheet

Date

10	198	80			
1	2	3	4	5	6

Plant

1	7	8
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Process Unit

2	9	10
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Screening Team

3	2	1
11	12	13

Instrument I.D.

2	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									
523	0131				11	02	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
524	1500	11			11	21	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
525	4000	101			11	22	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
526	0101				11	02	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
527	010				11	02	G,A,S, S,E,R,V,I,C,E, W,H,E,N, O,P,E R,A,T,I,N,G,						
528	011				11	02	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
529	011				11	02	S,F,S H T G,L,A,S,S O,P,E						
530	011				11	02	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
531	074				11	05	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						
532	011				11	02	L,I,Q,U,I,D, S,E,R,V,I,C,E, W,H,E,N, O,P,E,R,A,T,I,N,G,						

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

3	2	1
11	12	13

 Instrument I.D.

1	2
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									
533	0	11			11	02							
534	031												
535	300	11			11	02							
536	0741				11	01							
537	011				11	02							
538	0101				11	02							
539	0101				11	02							
540	011				11	02							
541	0101				11	02							
542	011				11	02							

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

7	8
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 Process Unit

2	
9	10

 Screening Team

3	2	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22									
543	100001	101		11	41	Liquid Service When Operating				
544	0101				02					
545	0	11		11	01					
546	7.00	101			02					
547	0	11			01					
548	100001	741			45					
549	0	11			01					
550	3000	741			1	-5				
551	8000	741		11	--	No Vent				
552										

Screening Data Sheet

 Date

10	9	8	0
1	2	3	4
5	6		

 Plant

1	1
7	8

 Process Unit

2	2
9	10

 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	2
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32						
	552	0	101		11	02				
	553	3000741			11	05				
	554	3000741			11	02				
08	555	0	111		11	02				
	556	200111			11	01				
	557	0111			11	01				
	558	0741			11	05				
	559	500741			11	01				
	560	1011			11	01				
	561	2500211			11	21				

Screening Data Sheet

 Date

10	03	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									
562	5,0,0	101			1	1	0	2					
563	0101				11	0	2						
564	4,0,0101				11	0	2						
565	0101				11	0	2						
566	031						0	5					
567	0101				11	0	2						
568	0101				11	0	2						
569	0101				11	0	2						
570	031				11	0	2						
571	1,5,0,0	741			11	4	2						

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

23	11	12	13
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 Instrument I.D.

2	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									59/79
572	1,0,0,0,0,0,741				1	1	42						
573	1,0,0,0,0,0,741				1	1	02	F0					
574	1,0,0,0,0,1,741				1	1	42						
575	1,0,0,90,1,741				1	1	42						
576	1,0,0,0,0,1,741				1	1	02	F0					
577	1,4,0,0,0,0,101				1	1	42						
578	1,0,0,0,0,1,741				1	1	42	VENT OUT CONTROLLER					
579	1,1,1,1,1,0				1	1	02						
580	1,2,0,0,1,1,1				1	1	01						
581	1,0,1,0,1				1	1	03						

Screening Data Sheet

 Date

10	98	80			
1	2	3	4	5	6

 Plant

1	2
7	8

 Process Unit

2	
9	10

 Screening Team

3	3	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments											
									16	22	29	31	32	36	37	38	39	40/60	59/79	
582	1111111600101	1	1	1	1	1	0	3												
583	1111110101101	1	1	1	1	1	0	1												
584	1111110101101	1	1	1	1	1	0	1												
585	1111111101101	1	1	1	1	1	0	1	HIGH BACK GROUND											
586	1111110101101	1	1	1	1	1	0	1												
587	1111110101101	1	1	1	1	1	0	1												
588	1111110031101	1	1	1	1	1	0	1												
589	1111110101101	1	1	1	1	1	0	2												
590	1111110131101	1	1	1	1	1	0	5												
591	1111110111101	1	1	1	1	1	1	0												

Screening Data Sheet

 Date

P	0	5	8	0	
1	2	3	4	5	6

 Plant

i	
7	8

 Process Unit

2	
9	10

 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments
					36	37			
16	22	29	31	32				40/60	59/79
593	0	11	11	11	02				
593	0	11	11	11	02				
594	70,0,0,0	201	11	11	41				
595	0	20	1	11	01				
596	9,0,0,0	20	1	11	-1				
597	12,0,0,0	11	11	11	03				
598	101	101	11	11	03	BACK GROUND	416H		
599	12,0,0	11	11	11	01				
600	10	11	11	11	01				
601	0	11	11	11	02				

Screening Data Sheet

Date

1	0	0	8	8	0
1	2	3	4	5	6

Plant

1	1
7	8

Process Unit

1	2
9	10

Screening Team

2	3	1
11	12	13

Instrument I.D.

1	2
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	1	1	1	1	40/60	59/79
	602	10	1	1	1	1	0	1		
	603	9,9,0,0	31	1	1	1	1	3		
	604	4,0,0,10	10	1	1	1	1	3		
58	605	1,0,0,0,0,110	1	1	1	1	1	41		
	606	10	1	1	1	1	0	2		
	607	0	11	1	1	1	0	1		
	608	0101	1	1	1	1	1	02		
	609	18,0,0	11	1	1	1	1	02		
	610	10	1	1	1	1	1	02		
	611	1,2,0,0	101	1	1	1	0	1		

Screening Data Sheet

 Date

10	09	80			
1	2	3	4	5	6

 Plant

1	2
7	8

 Process Unit

2	3
9	10

 Screening Team

2	3	1
11	12	13

 Instrument I.D.

12	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments		
									16	22	29 31 32 36 37 38 39 40/60 59/79
612	110101010	11	11	11	11	11	01	01			
613	110000011	11	11	11	11	11	42	42	MANWAY COVER		
614	110101010	11	11	11	11	11	02	02			
615	110101010	11	11	11	11	11	02	02			
616	110000011201	11	11	11	11	11	42	42	FLAME OUT		
617	11012111111	11	11	11	11	11	02	02			
618	11010111111	11	11	11	11	11	02	02			
619	11000001101	11	11	11	11	11	21	21			
620	110000011201	11	11	11	11	11	42	42			
621	11011111111	11	11	11	11	11	02	02			

Screening Data Sheet

 Date

1	0	8	8	0	
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	1	2
14	15	

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32	1	1	4	1					
	622	100001	201		11	11	4	1					
	623	200020	1		11	11	0	1					
	624	150020	1		11	11	0	1					
	625	40010	1		11	11	03	2					
L8	626	010	1		11	11	0	1					
	627	010	1		11	11	0	1					
	628	100001	74		11	11	1	1					
	629	200000	51		11	11	12	0					
	630	010	1		11	11	0	1					
	631	010	1		11	11	0	1					

Screening Data Sheet

 Date

10	08				
1	2	3	4	5	6

 Plant

1	
7	8

 Process Unit

2	
9	10

 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments					
									36	37	38	39	40/60	
16	22	29	31	32										59/79
632	7,0,0,0	10	1		11	11								
633	6,0,0,0	74	1		11	11	15							
634	4,0,0	11			11	11	02							
635	38,0	11			11	11	01							
636	20,0,0	101			11	11	02							
637	0,12				11	11	01	L I Q U I D S E R V I C E W H E N O P E R A T I N G						
638	0,10				11	11	01	L I Q U I D S E R V I C E W H E N O P E R A T I N G						
639	5,0,0	101			11	11	01							
640	8,0,0	73	1		11	11	02	S E A L S L E A T G L A S S						
641	0	73	1		11	11	03	S E A L						

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	
9	10

 Screening Team

231		
11	12	13

 Instrument I.D.

12	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments				
									36	37	38	39	40/60
16	22	29	31	32									
642	1350000101				11	41			L1 QUID SERVICE WHEN				
643	10000101				11	01			OPERATING				
644	10000101				11	11							
645	30000031				11	21							
646	10121				11	03							
647	18000111				11	02							
648	10131				11	03							
649	10111				11	03							
650	1100001731				11	42							
651	011				11	02							

Screening Data Sheet

 Date

10	08	80			
1	2	3	4	5	6

 Plant

1	2
7	8

 Process Unit

2	
9	10

 Screening Team

2	3	1
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments		
									29	31	32
16	22								36	37	38
652	10	1	1	11	0	2	2	2	THE F M O W E L		
653	6,0,0,0	1,0,1		11	3	1					
654	10,0,0,1	1,0,1		11	4	1					
655	10	1,0,1		11	0	1					
656	10	1,1,1		11	1	1	0	1			
657	0	1,0,1		11	0	3					
658	71								WET		
659	10	3,1		11	0	3					
660	10	1,0,1		11	0	1					
661	0741			11			05				

Screening Data Sheet

 Date

1	0	8	8	0	
1	2	3	4	5	6

 Plant

1	7	8
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 Process Unit

2	9	10
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 Screening Team

3	3	1
11	12	13

 Instrument I.D.

2	14	15
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Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									31	32
16	22	29	31	32	36	37	38	39	40/60	59/79
	662	0	1	1	1	1	0	2		
	663	15000	10	1	1	1	4	1		
	664	074	1	1	1	1	0	1		
T6	665	0	1	1	1	1	0	1		
	666	0	1	1	1	1	0	2		
	667	074	1	1	1	1	0	2		
	668	010	1	1	1	1	0	1		
	669	010	1	1	1	1	0	2		
	670	200	10	1	1	1	0	2		
	671	0	1	1	1	1	0	2		

Screening Data Sheet

Date

10	08	80			
1	2	3	4	5	6

Plant

1	7	8
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Process Unit

9	10
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Screening Team

12	3		
2	3	4	5
11	12	13	

Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments										
									16	22	29	31	32	36	37	38	39	40/60	59/79
1, 6, 7, 2	1, 0, 0, 0, 0, 1	51		62	05	P, R, F, S, S, V, A, C, R, E, L, I, F, F, Y, A, L V, F, S													
1, 6, 7, 3	1, 3, 0, 0, 0, 0	51		62	05	M, A, I, N, P, V, R, V													
1, 6, 7, 4	1, 0, 0, 0, 0, 1	51		62	05	P, V, R, V													
1, 6, 7, 5	1, 0, 0, 0, 0, 1	51		62	05	P, V, R, V, F, L, A, M, E, O, U, T													
1, 6, 7, 6	1, 7, 0, 0, 0, 0	51		62	05	P, V, R, V													
1, 6, 7, 7	1, 0, 0, 0, 0, 1	51		62	05	P, V, R, V													
1, 6, 7, 8	1, 7, 0, 0, 0, 0	51		62	105	M, A, I, N, P, V, R, V													
1, 6, 7, 9	1, 7, 0, 0, 0, 1	51		22	05	P, V, R, V													
1, 6, 8, 0	1, 1, 5, 0, 0, 0	51		22	05	P, V, R, V													
1, 6, 8, 1	1, 0, 0, 0, 0, 1	51		22	05	P, V, R, V													

Spout
Unit
3

N. Grade

Hannah Lease

Screening Data Sheet

 Date

1	0	0	8	8	0
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

3	
9	10

 Screening Team

1	2	3
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									40/60	59/79
16	22	29	31	32	36	37	38	39	40/60	59/79
	682	150000	51	22	05	P/V	R/V			
	683	150000	51	221	-5	P/V	R/V			
	684	10100	21	02						
	685	10101	21	02						
	686	10111	21	02						
66	687	10101	21	01						
	688	10111	21	02						
	689	10211	21	01						
	690	10741	21	-5						
	691	10111	21	02						

Screening Data Sheet

 Date

10	48	80			
1	2	3	4	5	6

 Plant

7	1
8	

 Process Unit

3	
9	10

 Screening Team

123		
11	12	13

 Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
									36	37
16	22	29	31	32	36	37	38	39	40/60	59/79
692	0101	1	21	02						
693	0101	1	21	02						
694	0111	1	21	02	O.R.I.F.I.C.E METER					
695	0101	1	21	03						
696	0101	1	21	03						
697	0111	1	21	02						
698	0101	1	21	02						
699	0101	1	21	02						
700	0101	1	21	02						
701	0111	1	21	02						

Screening Data Sheet

 Date

14	08	80			
1	2	3	4	5	6

 Plant

1	1
7	8

 Process Unit

3	
9	10

 Screening Team

1	2	3
11	12	13

 Instrument I.D.

Z	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments
					36	37			
16	22	29	31	32				40/60	59/79
702	032				1	03			
703	0102				1	01			
704	0132				11	02			
705	0132				11	03			
706	0102				11	02			
707	032				11	02			
708	0122				11	01			
709	012				11	02			
710	0132				11	02			
711	032				11	-5			

Screening Data Sheet

Date

14	08	80			
1	2	3	4	5	6

Plant /
7 8

Process Unit 3

Screening Team 1 2 3
11 12 13

Instrument I.D. Z
14 15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
16	22	29	31	32	36	37	38	39	40/60	59/79
713	0132	31	01							
714	0132	31	02							
715	051	21	-1							
716	80122	31	02							
717	150101	21	02							
718	0102	41	02							
719	50101	21	02							
720	0102	41	02							
721	10122	41	01							
722	10122	41	01							

Screening Data Sheet

corner 1 room
 HP Def. x 300 feet.
 LP Def + GPM = 50 feet.

Date

10	Q	8	0
1	2	3	4
5	6		

Plant

1	
7	8

Process Unit

3	
9	10

Screening Team

1	2	3
11	12	13

Instrument I.D.

2	
14	15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments										
									16	22	29	31	32	36	37	38	39	40/60	59/79
723	013	1		21	0	1													
724	021	1		21	0	1													
725	013	1		21	0	1													
726	013	1		21	0	1													
727	011	1		21	0	2													
728	110000110	1		21	4	2													
729	010	1		21	0	2													
730	011	1		21	0	1													
731	013	1		21	0	1													
732	600003	1		21	-1														

Screening Data Sheet

Mat Codes 1 = Crude or
2 = Sales gas
3 = HP Sep. leg.
4 = LPG Sep. leg

Date

10	128	80			
1	2	3	4	5	6

Plant 1
7 8

Process Unit

	3
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 9 10

Screening Team

1	2	3
11	12	13

Instrument I.D. 2
14 15

Source I.D.	Screening Value	Source Type	Service	Material Code	Elevation	Accessibility	Soap Score	Orientation	Comments	
16	22	29	31	32	36	37	38	39	40/60	59/79
783	0	132			11	02				
784	0	132			11	01				
785	0	122			11	02				
786	0	132			11	02				
787	0	32			11	-13				
788	0	51			21	-1				
789	0	131			31	01				
790	0	102		3	1	02				
791	0	102		3	1	02				
792	0	32		3	1	05				

TABLE A-2
PROTOCOL FOR CODING
THE
SCREENING DATA SHEET

TABLE A-2. DATA CODING CONVENTIONS

Columns	Coding												
1,2	Month (i.e., May = 05, October = 10)												
3,4	Day of the month												
5,6	Year (19 <u> </u> 0)												
7,8	A sequential identification number assigned to each plant.												
9,10	An identification number for each process unit encountered. For example: let 01 = Gas Plant - Adsorption 02 = Gas Plant - Cryogenic etc.												
11,12,13	A unique identification number assigned to each screening team. Each team member is assigned a personal ID number between 0 and 9. Column 11 will then contain the ID for the soap score reader, column 12 will be the OVA operator, and column 13 will be the data recorder.												
14,15	A sequential ID number assigned to each instrument used. Outside documentation should then include: Instrument 1 = OVA #2158 Instrument 2 = OVA #1575 etc.												
16 - 21	A sequential ID number for each source encountered. Start back at No. 1 for each new plant.												
22 - 28	The instrument screening value in ppmv.												
29,30	Source Type Code												
	<table> <thead> <tr> <th><u>Source</u></th> <th><u>Code</u></th> </tr> </thead> <tbody> <tr> <td>Flange</td> <td>1</td> </tr> <tr> <td>Process drain</td> <td>2</td> </tr> <tr> <td>Open-end line</td> <td>3</td> </tr> <tr> <td>Agitator seal</td> <td>4</td> </tr> <tr> <td>Relief valve</td> <td>5</td> </tr> </tbody> </table>	<u>Source</u>	<u>Code</u>	Flange	1	Process drain	2	Open-end line	3	Agitator seal	4	Relief valve	5
<u>Source</u>	<u>Code</u>												
Flange	1												
Process drain	2												
Open-end line	3												
Agitator seal	4												
Relief valve	5												

TABLE A-2. DATA CODING CONVENTIONS (continued)

Columns	Coding
29,30 (cont'd)	<u>Source</u>
	Block valve - gate type 10
	Block valve - globe type 11
	Block valve - plug type 12
	Block valve - ball type 13
	Block valve - butterfly type 14
Valves	Block valve - other types 15*
	Control valve - gate type 20
	Control valve - globe type 21
	Control valve - plug type 22
	Control valve - ball type 23
	Control valve - butterfly type 24
	Control valve - other types 25*
On-line Pump Seals	Single, mechanical, emission point at seal 30
	Single, mechanical, emission point at vent 31
	Single, mechanical, other emission point 32*
	Double, mechanical, emission point at seal 33
	Double, mechanical, emission point at vent 34
	Double, mechanical, other emission point 35*
	Single, packed, emission point at seal 36
	Single, packed, emission point at vent 37
	Single, packed, other emission point 38*
	Sealless pumps 39*

*Explain in comment field.

TABLE A-2. DATA CODING CONVENTIONS (continued)

Columns	Coding
29,30 (cont'd)	<u>Source</u>
Off-line Pump Seals	Single, mechanical, emission point at seal 40
	Single, mechanical, emission point at vent 41
	Single, mechanical, other emission point 42*
	Double, mechanical, emission point at seal 43
	Double, mechanical, emission point at vent 44
	Double, mechanical, other emission point 45*
	Single, packed, emission point at seal 46
	Single, packed, emission point at vent 47
	Single, packed, other emission point 48*
	Sealless pumps 49*
On-line Compre- sor Seals	Single, mechanical, emission point at seal 50
	Single, mechanical, emission point at vent 51
	Single, mechanical, other emission point 52*
	Double, mechanical, emission point at seal 53
	Double, mechanical, emission point at vent 54
	Double, mechanical, other emission point 55*
	Single, packed, emission point at seal 56
	Single, packed, emission point at vent 57
	Single, packed, other emission point 58*
	Sealless compressors 59

*Explain in the comment field.

TABLE A-2. DATA CODING CONVENTIONS (continued)

Columns	Coding
29,30 (cont'd)	
Off-line Compre- sor Seals	<u>Source</u>
	Single, mechanical, emission point at seal 60
	Single, mechanical, emission point at vent 61
	Single, mechanical, other emission point 62*
	Double, mechanical, emission point at seal 63
	Double, mechanical, emission point at vent 64
	Double, mechanical, other emission point 65*
	Single, packed, emission point at seal 66
	Single, packed, emission point at vent 67
	Single, packed, other emission point 68*
31	Sealless compressors 69*
	Vacuum Breakers 70
	Expansion Joints 71
	Rupture Disks 72
	Sight Glass Seals 73
Service Code -	
1 = Gas at Process Conditions	
2 = Light Liquids (naphthas and lighter with a vapor pressure \geq 0.04 psi @ 20°C)	
3 = Heavy Liquids (kerosene and less volatile liquids with a vapor pressure $<$ 0.04 psi @ 20°C)	
32 - 35	Material Code - a unique sequential identification number for each new process stream encountered. The code should be explained on the "Material Coding Sheet" shown as Table A-3. The stream description should include information about specific components and their concentrations (i.e., depropanizer overhead - 80% propane, 11% propylene, 3% ethane, 6% isobutane).

*Explain in the comment field.

TABLE A-2. DATA CODING CONVENTIONS (continued)

Columns	Coding
36	<p>Elevation Code -</p> <p>0 = Below ground level (pits, etc.) 1 = Ground level 2 = <u>1st</u> Platform above ground 3 = <u>2nd</u> Platform above ground etc.</p>
37	<p>Accessibility Code -</p> <p>Blank = normal (easy) accessibility 1 = accessible with a free standing ladder or a minor amount of scaffolding 2 = accessible only with a crane, cherry picker, or major scaffolding 3 = physically accessible, but not safe to approach 4 = emission point inaccessible because it is hard piped to a control device 5 = shrouds or other safety devices prevent access to the seal area ? = Other codes may be assigned and documented in the field</p>
38	<p>Soap Score Code -</p> <p>0 = No detectable bubbling during the six second observation period 1 = Zero to 1 cc total bubble volume in six seconds 2 = 1 cc to 10 cc per six seconds 3 = 10 cc to 100 cc per six seconds 4 = > 100 cc per six seconds, which is characterized by bubbles popping before the 6 second period is up and/or the soap solution being blown away from the seal area</p>
39	<p>Orientation Code -</p> <p>1 = Horizontal seal interface (vertical-mounted valve) 2 = Vertical seal interface (horizontal-mounted valve) 3 = Diagonal seal interface 4 = Rotating seal, no soap score possible</p>

TABLE A-2. DATA CODING CONVENTIONS (continued)

Columns	Coding
40 - 79	<p>Comments - Free form alpha-numeric field which can be used to describe any significant information noted about the source, such as:</p> <p>VISIBLE LIQUID EMISSION, VISIBLE VAPOR EMISSION, HOT SOURCE, SOAP VAPORIZING, COLD SOURCE, ICE FORMING, SEAL AREA VENTED TO FLARE, SCREENED AT SEAL OIL VENT, etc.</p>

TABLE A-3
MATERIAL CODING SHEETS

TABLE A-3. MATERIAL CODING SHEET

Plant ID 1, Process Unit ID 3 4

Tank Battery

Stream Description	Code	
<u>Inlet Oil -</u> RVP \approx 8+ lb.	<u>5</u> <u>6</u> <u>7</u> <u>1</u> <u>8</u>	VOC
<u>HP Sep. Gas -</u> 90+ % CH ₄ + C ₂	<u>13</u> <u>14</u> <u>15</u> <u>2</u> <u>16</u>	Non
<u>HP Sep. Liq. -</u> RVP \approx 8+ lb.	<u>21</u> <u>22</u> <u>23</u> <u>3</u> <u>24</u>	VOC
<u>LP Sep. Gas -</u> 90+ % CH ₄ + C ₂	<u>29</u> <u>30</u> <u>31</u> <u>4</u> <u>32</u>	Non
<u>LP Sep. Liq.</u> RVP \approx 8/lb.	<u>37</u> <u>38</u> <u>39</u> <u>5</u> <u>40</u>	VOC
<u>Cmp. Disc -</u> 90+ % CH ₄ , C ₂	<u>45</u> <u>46</u> <u>47</u> <u>6</u> <u>48</u>	Non
<u>Gas from Drier -</u> 90+ % CH ₄ , C ₂	<u>53</u> <u>54</u> <u>55</u> <u>7</u> <u>56</u>	Non
<u>Water to Storage (LP Sep). -</u>	<u>61</u> <u>62</u> <u>63</u> <u>8</u> <u>64</u>	Non
	<u>69</u> <u>70</u> <u>71</u> <u>72</u>	
	<u>77</u> <u>78</u> <u>79</u> <u>80</u>	

TABLE A-3. MATERIAL CODING SHEET

*Adsorption Unit C*Plant ID 1 2, Process Unit ID 3 4

<u>Stream Description</u>	<u>Code</u>
<u>Inlet Gas</u>	<u>1</u> <u>Non</u>
	<u>5</u> <u>6</u> <u>7</u> <u>8</u>
	<u>13</u> <u>14</u> <u>15</u> <u>16</u>
	<u>21</u> <u>22</u> <u>23</u> <u>24</u>
	<u>29</u> <u>30</u> <u>31</u> <u>32</u>
	<u>37</u> <u>38</u> <u>39</u> <u>40</u>
	<u>45</u> <u>46</u> <u>47</u> <u>48</u>
	<u>53</u> <u>54</u> <u>55</u> <u>56</u>
	<u>61</u> <u>62</u> <u>63</u> <u>64</u>
	<u>69</u> <u>70</u> <u>71</u> <u>72</u>
	<u>77</u> <u>78</u> <u>79</u> <u>80</u>

TABLE A-3. MATERIAL CODING SHEET

Adsorption Unit A

Plant ID 1 2, Process Unit ID 3 4

Mol. %.

Stream Description	Code	No.
Raw Gas - 93% CH ₄ , 3% C ₂ , 1% C ₃ , 0.5% C ₄ , 0.73% C ₅₊ , 1.8% CO ₂ +N ₂	5 6 7 8	1
Product Gas - 94% CH ₄ , 3% C ₂ , 1% C ₃ , 0.5% C ₄ , C ₅₊ 0.3%, 1.2% CO ₂ +N ₂	13 14 15 16	2 Non
VOC ✓ Regeneration Gas - ██████████	21 22 23 24	3 VOC
HP Separator Gas -	29 30 31 32	4 VOC
✓ HP Separator Liquid - Natural Gasoline + some LPG - C ₇₊ ≈ 15%, C ₆ = 1.5%, C ₅ = 2.5%, C ₄ = 2.4%, C ₃ = 3.5% C ₂ = 22%	37 38 39 40	5 VOC
✓ LP Separator Gas - CH ₄ ≈ 70%, C ₂ = 8% C ₃ = 6%, C ₄ = 6%, C ₅ = 10%	45 46 47 48	6 VOC
✓ LP Separator Liquid - Natural Gasoline ≈ 7.3 RVP	53 54 55 56	7 VOC
"Drip" Condensate from Inlet Gas ≈ 7 RVP	61 62 63 64	8 VOC
	69 70 71 72	
	77 78 79 80	

TABLE A-4

QA/QC DATA

CALIBRATION CHECKING FORM

Comments:

Digitized by srujanika@gmail.com

Plant I

TABLE 7-2
REPEAT SCREENING FORM

Comments: