Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☒ Tank(s) ☐

Ingersoll Rand — 1941 Marina Blvd San Leandro
Name / Address / Representative / Telephone

Name / Address / Representative / Telephone

2. OPERATOR

Same
Name / Address / Telephone

3. REASON FOR TEST (Explain Fully)

State Requirement

4. WHO REQUESTED TEST AND WHEN

John Mooney — Ingersoll Rand — 3/23/89
Name / Title / Company or Affiliation / Date

Address / Telephone

5. TANK INVOLVED

Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
North	500		waste oil	20 yr	Steel.

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
North end of Building	Concrete	2" / 2"	2"	0	0
North inside driveway, Rear of station, etc	Concrete, Black Top, Earth, etc	Size, Titefill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

7. UNDERGROUND WATER

Depth to the Water table No Well "

Is the water over the tank? ☐ Yes ☐ No

8. FILL-UP ARRANGEMENTS

Tanks to be filled ________ hr ________ Date Arranged by ________ Name ________ Telephone

Extra product to "top off" and run tank tester How and who to provide? Consider NO Lead

Terminal or other contact for notice or inquiry ________ Company ________ Name ________ Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

Paradiso Construction Co.

Dave Mondick

10. OTHER INFORMATION OR REMARKS

Test entire System.

Additional information on any items above Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
North w/o	Yes.	-.003 GPH	3/23/89

12. SENSOR CERTIFICATION

3/23/89
Date

623
Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians

1. Dave Mondick

Certification # 414811371

2. ________

Certification # ________

Paradiso Construction Co. — [signature]
Testing Contractor or Company By Signature

9220 "G" Street, Oakland, CA 94603
Address

PN6827

14. Ingersoll Rand | 1914 Marina Blvd | San Leandro | CA | 3/23/89
Name of Supplier, Owner or Dealer | Address No and Street(s) | City | State | Date of Test

15. TANK TO TEST

North
Identity by position

Waste Oil
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 500 Gallons

By most accurate capacity chart available 500 Gallons

From
- ☐ Station Chart
- ☐ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☐ Charts supplied with
- ☐ Other

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up 0 to ⅛" in | 0 Gallons | 48 Tank Diameter in

	Gallons	Total Gallons ea Reading
Inventory		500
	Top off	15
		515

Transfer total to line 25a

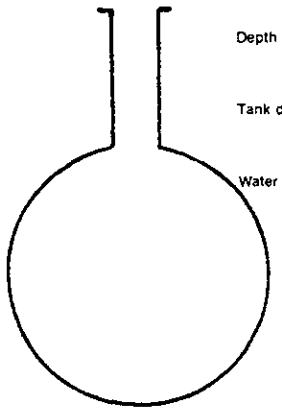
18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK ☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable Check below and record procedure in log (27)

Use maximum allowable test pressure for all tests
Four pound rule does not apply to doublewalled tanks

Complete section below

1. Is four pound rule required? Yes ☒ No ☐
2. Height to 12" mark from bottom of tank 173 in
3. Pressure at bottom of tank 5.5533 PSI
4. Pressure at top of tank 4.0125 PSI



Depth of burial 36 in
Tank dia 48 in
Water table 7 in

NOTES.

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* 84 in
Add 30" for "T" probe assy 30 in
Total tubing to assemble — approximate 120 in

20. EXTENSION HOSE SETTING

Tank top to grade* 36 in.
Extend hose on suction tube 6" or more below tank top 10 in

*If Fill pipe extends above grade, use top of fill

22. Thermal-Sensor reading after circulation 12223 digits
59.60 °F Between
23. Digits per °F in range of expected change 320 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A P I Gravity

Observed A.P.I Gravity
Hydrometer employed H
Observed Sample Temperature °F
Corrected A P.I Gravity @ 60°F, From Table A
Coefficient of Expansion for Involved Product From Table B
Transfer COE to Line 25b.

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product Diesel
Hydrometer Employed 4 H
Temperature in Tank After Circulation 59.4 °F
Temperature of Sample 61.0 °F
Difference (+/-) +1.6 °F
Observed A P.I Gravity 32.7
Reciprocal 2206 Page # 36

515 (Total quantity in full tank (16 or 17)) × 2206 (Reciprocal) = .2334542 15 (Volume change in this tank per °F)
Transfer to Line 26a.

24c. FOR TESTING WITH WATER see Table C & D

Water Temperature after Circulation Table C °F
Coefficient of Water Table D
Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b

25. (a) Total quantity in full tank (16 or 17) × (b) Coefficient of expansion for involved product = (c) Volume change in this tank per °F gallons

26. (a) .2334542 15 Volume change per °F (25 or 24b) × 320 Digits per °F in test Range (23) = .0007295 44 Volume change per digit Compute to 4 decimal places

This is test factor (a) R=.0007

0715	ARRIVED ON SITE												
							A=.0007						
0815	Begin Circulation												
0845	1st Sensor Reading							12223					
0900	Begin High Test	1	42.2	42	.070	.080	+.010	12244	+21	+.015	-.005		
0915		2	42.0	42	.080	.080	±.000	1278	+34	+.024	-.024		
0980		3	42.0	42	.080	.080	±.000	307	+29	+.020	-.020		
0945		4	42.0	42	.080	.080	±.000	338	+31	+.022	-.022		
	Drop To Low												
1000	1st Sensor Reading	5	12.5	12	0	.030	+.030	372	+34	+.024	+.006		
1015	2nd Sensor Reading	6	12.4	12	.030	.050	+.020	404	+32	+.022	-.002		
1020	Begin Low Test	7	12.2	12	.050	.060	+.010	422	+18	+.013	-.003	-.003	
1025		8	12.2	12	.060	.070	+.010	434	+12	+.008	+.002	-.001	
1030		9	12.2	12	.070	.080	+.010	448	+14	+.010	±.000	-.001	
1035		10	12.2	12	.080	.090	+.010	463	+15	+.010	±.000	-.001	
1040		11	12.2	12	.090	.095	+.005	475	+12	+.008	-.003	-.004	
1045		12	12.2	12	.095	.105	+.010	486	+11	+.008	+.002	-.002	
1050		13	12.2	12	.105	.115	+.010	499	+13	+.009	+.001	-.001	
1055		14	12.2	12	.115	.120	+.005	511	+12	+.008	-.003	-.004	
1100		15	12.2	12	.120	.130	+.010	525	+14	+.010	±.000	-.004	

P-T Tank Test Data Chart
Additional Info

Net Volume Change at Conclusion of Precision Test ____ gph

Signature of Tester _____

Date _____

2 Statement:

☐ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N F P A. publication 329

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____

							R= .0007					
1100	Low Test Continued	15	12.2	12	.120	.130	±.010	525	+14	±.010	±.000	-.004
1105		16	12.2	12	.130	.140	±.010	536	+11	±.008	±.002	-.002
1110		17	12.2	12	.140	.150	±.010	549	+13	±.009	±.001	-.001
1115		18	12.2	12	.150	.155	±.005	561	+12	±.008	-.003	-.004
1120		19	12.2	12	.155	.165	±.010	572	+11	±.008	±.002	-.002
1125		20	12.2	12	.165	.175	±.010	585	+13	±.009	±.001	-.001
1130		21	12.2	12	.175	.180	±.005	597	+12	±.008	-.003	-.004
1135		22	12.2	12	.180	.190	±.010	611	+14	±.010	±.000	-.004
1140		23	12.2	12	.190	.200	±.010	625	+14	±.010	±.000	-.004
1145		24	12.2	12	.200	.205	±.005	637	+12	±.008	-.003	-.007
1150		25	12.2	12	.205	.215	±.010	648	+11	±.008	±.002	-.005
1155		26	12.2	12	.215	.220	±.005	659	+11	±.008	-.003	-.008
1200		27	12.2	12	.220	.230	±.010	671	+12	±.008	±.002	-.006
1205		28	12.2	12	.230	.240	±.010	684	+13	±.009	±.001	-.005
1210		29	12.2	12	.240	.245	±.005	696	+12	±.008	-.003	-.008
1215		30	12.2	12	.245	.255	±.010	707	+11	±.008	±.002	-.006
											÷	2
												-.003

P-T Tank Test Data Chart
Additional Info

Net Volume Change at Conclusion of Precision Test -.003 gph

Signature of Tester Don P.C. Mutter

Date 3/23/89

2. Statement:

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A publication 329.

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____