

TANKNOLOGY CORPORATION INTERNATIONAL

5225 Hollister, Houston, Texas 77040-6294

Phone: (713) 690-TANK

Fax: (713) 690-2255

Certificate of Tightness

Service Order # 7793

Test date 10/4/90

Underground storage tank system(s) tested and found tight for:

Tank(s) & Piping,
Quan.

Tank(s) Only,
Quan.

Piping only.
Quan.

Tank Owner/Address B.P. OIL CO., 2868 PROSPECT PARK BLVD., RANCHO CORDOVA,
CA 95670-6020

Test Site Address B.P. #11116, 7197 VILLAGE PARKWAY, DUBLIN, CA 94566

Tank sizes & products tested _____

Tank #1 8K RUN, Tank #2 10K REG, Tank #3 6K SUN.

Piping Tested LINES: 1A, 2A, 3A.

DAVE MATHIE #0087

#92-1429

Certification # & Expiration Date

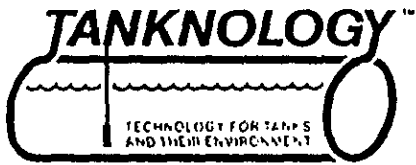
Dave Mathie
Unit Mgr. Signature

Valid only with
Corporate Seal

U. S. Patent * 4462249, Canadian Patent * 1185693, European Patent Appl. * 169283
TANKNOLOGY & VacuTect are trademarks of TANKNOLOGY CORPORATION INTERNATIONAL

Note: See VacuTect Test Report for tank identification and site location drawing.

Form-Cert.3/89



VACUTECT™ TANK TESTING REPORT

S.O.# 7793

Customer: B.P. OIL COMPANY Cust. Ref. # 14829099824

Date: 10/4/90

Billing Address: 2868 PROSPECT PARK BLVD., #360, RANCHO CORDOVA, CA 95670-6020

Phone: 916/631-6915

Service Address: B.P. #11116, 7197 VILLAGE PARKWAY, DUBLIN, CA 94566

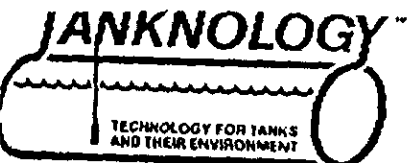
Attention: LOU PARISI

TANK TEST											LINE		COMMENTS: Note alterations or repairs!
Tank # and Date Tested. See Diagram For Location. DATE/TANK #	TYPE PROD.	TANK DIA.	TANK GAL.	Dipped Water Level START	Dipped Prod. Level START	Rec. Water Level START	Water Ingress Detected At Computer Time HR/MIN	Bubble Ingress Detected At Computer Time HR/MIN	Ullage Air Ingress- Detected At Computer Time HR/MIN	TIGHT (T) or FAIL (F)	TANK # LINE A,B,C.	TIGHT (T) or FAIL (F)	
#1 10/4/90	RUN	92	8K	0	64	0	NO	NO	NO	T	1A	T	PS FG LDI
#2 10/4/90	REG	92	10K	0	78	0	NO	NO	NO	T	2A	T	PS FG LDI
#3 10/4/90	SUN	92	6K	0	82	0	NO	NO	NO	T	3A	T	PS FG LDI
#4 10/4/90	W/O	NOT TESTED--DOUBLE WALL											

TANKNOLOGY SERVICE DIVISION: WESTERN UNIT # 23-399

TANKNOLOGY CORPORATION INTERNATIONAL
 P.O. Box 5997 • Vacaville, CA 95696-5997
 (707) 446-2494 • FAX: (707) 446-2495

Original VacuTect data recordings are reviewed by Tanknology's Audit Control Department and maintained as follows:



TANKNOLOGY CORP., INTL.
 DAVID MATHIE
 OTTL #92-1429
 TCI: #0087

VACUTECT™ TANK TESTING REPORT S.O.# 07793

Customer: BPAI CO Cust. Ref. # 1116 Date: 10-4-90
 Billing Address: 2828 Prospero Rd or Rancho Cordova, CA 95670-6070 Phone: _____
 Service Address: 7197 Village Parkway Duddin CA 94516 Attention: _____

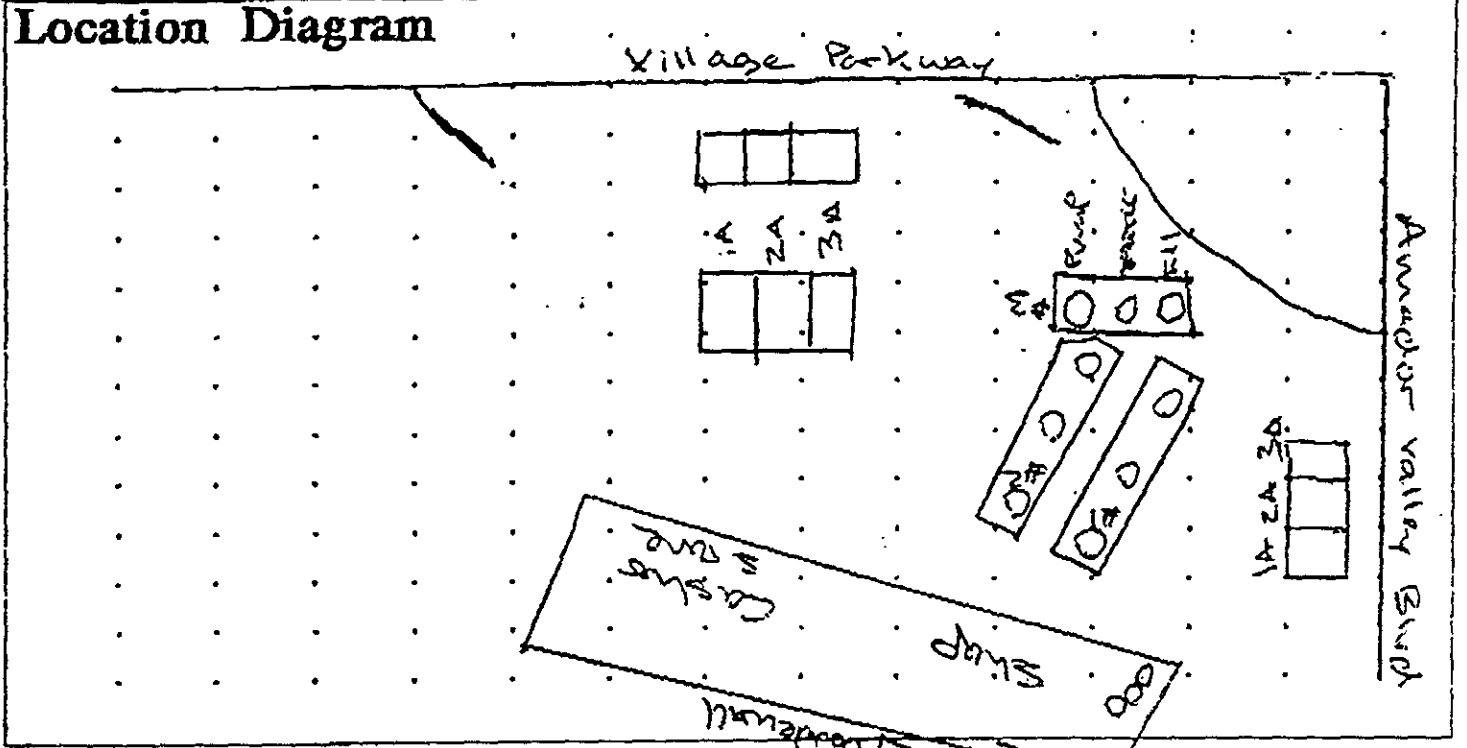
TANK TEST											LINE		COMMENTS: Note alterations or repairs!	
Tank # and Tested.	Diagram Location.	TYPE PROD.	TANK DIA.	TANK GAL.	Dipped Water Level START	Dipped Prod. Level START	Rec. Water Level START	Water Ingress Detected At Computer Time HR/MIN	Bubble Ingress Detected At Computer Time HR/MIN.	Ullage Air Ingress Detected At Computer Time HR/MIN	TIGHT (T) or FAIL (F)	TANK # LINE A,B,C.	TIGHT (T) or FAIL (F)	
10490	1	RU	92	82	8	64	8	NONE	NONE	NONE	T	1A	T	PS FG LDI
0490	2	RL	92	102	D	78	8	NONE	NONE	NONE	T	2A	T	PS FG LDI
0490	3	SU	92	62	8	82	8	NONE	NONE	NONE	T	3A	T	PS FG LDI
4		W/B			NOT TESTED			Double wall			✓			

TANKNOLOGY CORP., INTL. 997
 TANKNOLOGY SERVICE DIVISION DAVID MATHIE UNIT # 023-399
 OTTL #92-1429
 TCI: #0087

TANKNOLOGY CORPORATION INTERNATIONAL
 5225 Hollister St. • Houston, TX 77040-6294
 (713) 690-8265 • Fax: (713) 690-2255
 Original VacuTect data recordings are reviewed by Tanknology's Audit Control Department and maintained on file.

S.O.# 07793

MONITOR WELLS												
Number	1	2	3	4	5	6	7	8	9	10	11	12
Depth												
Water												
Prod. Detected												
NOT Det.												

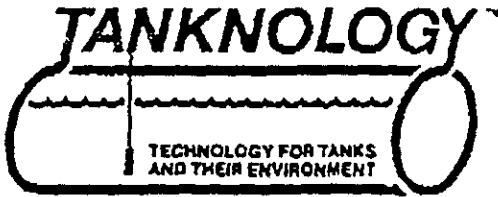


Parts and Labor used

General Comments all tanks main fold the vent & VR-2
NO ISULATION. have to close all dispensers.
one P.P.E maintained on VR2 under dispenser hard piped.

When local regulations require immediate reporting of a system leak-Complete the following:
Reported to: _____
 Name Date Time
 Phone Number Regulatory TankNOLOGY CORP., INTL File Number

Print: Certified Testers Name David Mathie
 Vacutect(tm) Certification Number 10-4-90
 TCI: #0087



LINE TEST LOG

S.O.# 07793

Customer BP Oil CO #1116

Date 10-4-90

7197 Village Parkway Dublin ca 94566

Tank No. 1 Line No. 1A Product RUL
 Piping Material FG Test Pressure 50 psi Calib. Multiplier 00549

COMPRESSION TEST Zero Pres. Level 13.9 Test Pres. Level 7.0
 LEVEL Δ 6.9 Volume Δ 0.038

LINE TEST					
Mil. Time	Reading #	Level	Level Δ	Volume Δ	Projected G.P.H. Δ
1126	Start	7.0	██████████	██████████	██████████
1136	1	6.8	.2	.0010	.00658
1146	2	6.6	.2	.0000	.00658
1156	3	6.6	0	0	0
	4				
	5				
	6				

FINAL LINE TIGHTNESS RATE: _____, FAIL [] or PASS [✓]
 Comments:

Tank No. 2 Line No. 2A Product RL
 Piping Material FG Test Pressure 50 psi Calib. Multiplier 00549

COMPRESSION TEST Zero Pres. Level 16.8 Test Pres. Level 10.2
 LEVEL Δ 6.6 Volume Δ 0.036

LINE TEST					
Mil. Time	Reading #	Level	Level Δ	Volume Δ	Projected G.P.H. Δ
1214	Start	10.2	██████████	██████████	██████████
1224	1	10.0	.2	.0016	.00658
1234	2	10.0	0	0	0
	3				
	4				
	5				
	6				

FINAL LINE TIGHTNESS RATE: _____, FAIL [] or PASS [✓]
 Comments:

Tank No. 3 Line No. 3A Product SUL
Piping Material EG Test Pressure 50 psi Calib. Multiplier 0.949

COMPRESSION TEST Zero Pres. Level 13.9 Test Pres. Level 9.1
LEVELA 6.8 Volume Δ .037

LINE TEST

Mil. Time	Reading #	Level	Level Δ	Volume Δ	Projected G.P.H. Δ
13.00	Start	9.1	 	 	
13.10	1	8.8	.3	.0016	.0188
13.20	2	8.7	.1	.0054	.00329
13.30	3	8.7	0	0	0
	4				
	5				
	6				

FINAL LINE TIGHTNESS RATE: _____, FAIL [] or PASS [✓]
Comments: _____

Tank No. _____ Line No. _____ Product _____
Piping Material _____ Test Pressure _____ psi Calib. Multiplier _____

COMPRESSION TEST Zero Pres. Level _____ Test Pres. Level _____
LEVELA _____ Volume Δ _____

LINE TEST

Mil. Time	Reading #	Level	Level Δ	Volume Δ	Projected G.P.H. Δ
	Start		 	 	
	1				
	2				
	3				
	4				
	5				
	6				

FINAL LINE TIGHTNESS RATE: _____, FAIL [] or PASS []
Comments: _____

Technician _____, David Mathie
VacuTest Certif # _____ PRINT NAME SIGNATURE

11114

Data Chart for Tank System Tightness Test

SS # 10-KNK

PLEASE PRINT

<p>1. OWNER <input type="checkbox"/> Property Tank(s) <u>3</u></p>	<p><u>Mobil 7197 Village Parkway Dublin, Ca.</u> <small>Name Address Representative Telephone</small></p>																									
<p>2. OPERATOR</p>	<p><small>Name Address Telephone</small></p>																									
<p>3. REASON FOR TEST (Explain Fully)</p>	<p><u>Required</u></p>																									
<p>4. WHO REQUESTED TEST AND WHEN</p>	<p><u>Mobil</u> <small>Name Title Company or Affiliation Date</small></p>																									
<p>5. TANK INVOLVED # <u>1</u> Use additional lines # for manifolded tanks # <u>3</u></p>	<small>Identify by Direction</small>	<small>Capacity</small>	<small>Brand/Supplier</small>	<small>Grade</small>	<small>Approx Age</small>	<small>Steel/Fiberglass</small>																				
		<u>10,000</u>	<u>Mobil</u>	<u>Reg Leaded</u>	<u>5-7 yrs.</u>	<u>Fiber</u>																				
		<u>8,000</u>	<u>"</u>	<u>Reg. unL.</u>	<u>1</u>	<u>1</u>																				
		<u>6,000</u>	<u>"</u>	<u>Super unL.</u>	<u>1</u>	<u>1</u>																				
<p>6. INSTALLATION DATA</p>	<p><u>Village Pkwy</u> <small>Location</small></p>		<p><u>Concrete</u> <small>Cover</small></p>	<p><u>4" / w drop tubes</u> <small>Fills</small></p>	<p><u>2" on building</u> <small>Vents</small></p>	<p><u>Remote</u> <small>Pumps</small></p>																				
	<p><u>Station - North inside driveway Rear of station, etc</u> <small>Location</small></p>		<p><u>Concrete, Black Top, Earth etc</u> <small>Cover</small></p>	<p><u>Size Titlefill make, Drop tubes Remote Fills</u> <small>Fills</small></p>	<p><u>Size, Manifolded</u> <small>Vents</small></p>	<p><u>Which tanks?</u> <small>Siphones</small></p>																				
	<p><u>Station - North inside driveway Rear of station, etc</u> <small>Location</small></p>		<p><u>Concrete, Black Top, Earth etc</u> <small>Cover</small></p>	<p><u>Size Titlefill make, Drop tubes Remote Fills</u> <small>Fills</small></p>	<p><u>Size, Manifolded</u> <small>Vents</small></p>	<p><u>Which tanks?</u> <small>Siphones</small></p>																				
<p>7. UNDERGROUND WATER</p>	<p>Depth to the Water table: <u>below Tanks</u> <small>Is the water over the tank?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>																									
<p>8. FILL-UP ARRANGEMENTS</p>	<p>Tanks to be filled _____ hr _____ Date Arranged by <u>Mobil</u> <u>Night drop</u> <small>Name Telephone</small></p> <p>Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead</p>																									
<p>9. CONTRACTOR, MECHANICS, any other contractor involved</p>	<p><i>(This section is crossed out with a large diagonal line)</i></p>																									
<p>10. OTHER INFORMATION OR REMARKS</p>	<p>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</p>																									
<p>11. TEST RESULTS</p>	<p>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:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;"></th> <th style="width:20%;">Tank Identification</th> <th style="width:10%;">Tight</th> <th style="width:20%;">Leakage Indicated</th> <th style="width:10%;">Date Tested</th> </tr> </thead> <tbody> <tr> <td># <u>1</u></td> <td><u>10,000 Reg. lead</u></td> <td><u>T</u></td> <td><u>- .015 G.P.H.</u></td> <td><u>10-3-88</u></td> </tr> <tr> <td># <u>2</u></td> <td><u>8,000 Reg. unL.</u></td> <td><u>T</u></td> <td><u>- .023 G.P.H.</u></td> <td><u>11</u></td> </tr> <tr> <td># <u>3</u></td> <td><u>6,000 Super unL.</u></td> <td><u>T</u></td> <td><u>- .027 G.P.H.</u></td> <td><u>11</u></td> </tr> </tbody> </table>							Tank Identification	Tight	Leakage Indicated	Date Tested	# <u>1</u>	<u>10,000 Reg. lead</u>	<u>T</u>	<u>- .015 G.P.H.</u>	<u>10-3-88</u>	# <u>2</u>	<u>8,000 Reg. unL.</u>	<u>T</u>	<u>- .023 G.P.H.</u>	<u>11</u>	# <u>3</u>	<u>6,000 Super unL.</u>	<u>T</u>	<u>- .027 G.P.H.</u>	<u>11</u>
	Tank Identification	Tight	Leakage Indicated	Date Tested																						
# <u>1</u>	<u>10,000 Reg. lead</u>	<u>T</u>	<u>- .015 G.P.H.</u>	<u>10-3-88</u>																						
# <u>2</u>	<u>8,000 Reg. unL.</u>	<u>T</u>	<u>- .023 G.P.H.</u>	<u>11</u>																						
# <u>3</u>	<u>6,000 Super unL.</u>	<u>T</u>	<u>- .027 G.P.H.</u>	<u>11</u>																						
<p>12. SENSOR CERTIFICATION <u>10-3-88</u> Date <u>1717</u> Serial No. of Thermal Sensor</p>	<p>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.</p> <p>1. <u>Randy Johnson</u> <small>Technician</small> Certification # <u>411890701</u></p> <p><u>Balch Petro.</u> <small>Testing Contractor or Company By Signature</small> <u>930 Ames, Milpitas, Ca.</u> <small>Address</small></p>																									

LOG OF TEST PROCEDURES (Supplemental)		PRESSURE CONTROL		VOLUME MEASUREMENTS (V) RECORD TO .001 GAL			TEMPERATURE COMPENSATION USE FACTOR (a)			NET VOLUME CHANGING EACH READING	ACCUMULATED CHANGE	
28 DATE TIME (24 hr)	Record details of setting up and running test (Use full length of line if needed)	29. Reading No	Standpipe Level in Inches		32. Product in Graduate		33. Product Replaced (-)	35. Thermal Sensor Reading	36. Change Higher + Lower - (c)	37. Computation (c) * (a) = Expansion + Contraction -	Temperature Adjustment Volume Minus Expansion (+) or Contraction (-) #33(V) - #37(T)	At Low Level compute Change per Hour (NFPA criteria)
			Beginning of Reading	Level to which Restored	Before Reading	After Reading	Product Recovered (+)					
07:00	Arrived at Lake - set up tank										.016	
07:10	Start Circulation		42					16904				
07:45	Leak Stop Leak	1	42.8		720	770	+0.050	918	+14	+224	-174	
8:00		2	41.5		770	710	+0.060	924	+6	+096	-036	
8:15		3	43.2		710	810	+1.00	950	+26	+416	-316	
8:30		4	43.4		910	910	+1.00	960	+10	+160	-060	
8:45		5	43.4		940	340	+1.00	972	+8	+128	-028	
9:00		6	43.5		340	450	+1.10	988	+16	+256	-146	
9:15		7	43.4		450	550	+1.00	994	+6	+096	+024	
9:30		8	43.2		550	660	+1.10	1006	+12	+192	-082	
9:45	Stop Low Leak		12									
9:45	Leak Stop Leak	1	14.1		150	310	+1.60	023	+17	+272	-110	
10:00		2	14.		310	480	+1.70	035	+12	+192	-022	
10:15		3	13.8		480	620	+1.40	044	+9	+144	-004	-004
10:30		4	14		620	750	+1.30	052	+8	+128	+002	-002
10:45		5	13.8		750	910	+1.60	064	+12	+192	-032	-034
11:00		6	13.7		500		+1.55		+9	+144	+011	-023
	end test										-023	6 R H

**P-T Tank Test Data Chart
Additional Info**

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.

1. Net Volume Change at Conclusion of Precision Test _____ gph

Signature of Tester _____

Date _____

Tank Owner/Operator _____

Date _____

REGULAR		LOG OF TEST PROCEDURES (Supplemental)		30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO 001 GAL			34. TEMPERATURE COMPENSATION USE FACTOR (A)			38. NET VOLUME CHANGING EACH READING	39. ACCUMULATED CHANGE
28 DATE	Record details of setting up and running test (Use full length of line if needed).	29. Reading No	30. Standpipe Level in inches		32. Product in Graduate		33. Product Replaced (-)	35. Thermal Sensor Reading	36. Change Higher - Lower - (c)	37. Computation (c) = (a) - Expansion + Contraction -	38. Temperature Adjustment Volume Minus Expansion (+) or Contraction (-) (#31V) - (#37I)	39. At Low Level compute Change per Hour (NFA criteria)	
			Beginning of Reading	Level to which Restored	Before Reading	After Reading	Product Recovered (+)						
0840	Pump Primed & Running												
0840	1 st Sensor Reading	1		42				17					
0955	Start high level test	2	44.0	42	.085	.230	+.145	412	+7	+.172	-.027		
1010	Cont. high level test	3	44.0	42	.230	.370	+.140	420	+8	+.197	-.057		
1025	"	4	44.0	42	.370	.520	+.150	432	+12	+.215	-.145		
1040	"	5	44.1	42	.520	.670	+.150	438	+6	+.148	+.002		
1055	"	6	44.1	42	.670	.815	+.145	445	+7	+.172	-.027		
1110	"	7	44.2	42	.815	.965	+.150	454	+9	+.221	-.071		
1125	"	8	44.1	42	.165	.310	+.145	460	+6	+.148	-.003		
1140	"	9	44.2	42	.310	.465	+.155	467	+7	+.172	-.017		
	Drop to low level												
1155	1 st low level Reading	10		12				473					
1210	Start low level test	11	14.8	12	.180	.380	+.200	480	+7	+.172	+.028	+.028	
1225	Cont. low level test	12	14.8	12	.380	.575	+.195	488	+8	+.197	-.002	+.026	
1240	"	13	14.7	12	.575	.765	+.190	496	+8	+.197	-.007	+.019	
1255	"	14	14.6	12	.765	.945	+.180	503	+7	+.172	+.008	+.027	
	PHILIP F. DELGADILLO # 122510940												

P-T Tank Test Data Chart
Additional Info

1. Net Volume Change at Conclusion of Precision Test ^{+.027 gph}
Signature of Tester: *Philip F. Delgadillo*
Date: 10-7-88

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 328. 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 328.

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 _____

27		LOG OF TEST PROCEDURES (Supplemental)		30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL		34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGING EACH READING	39. ACCUMULATED CHANGE	
28 DATE	TIME (24 hr)	Record details of setting up and running test (Use full length of line if needed)	29. Reading No	30. Standpipe Level in Inches		32. Product in Graduate		33. Product Replaced (-)	35. Thermal Sensor Reading	36. Change Higher - Lower - (c)	37. Computation (c) - (a) = Expansion - Contraction -	Temperature Adjustment Volume Minus Expansion (+) or Contraction (-) #33(V) - #37(I)	At Low Level compute Change per Hour (NFPA criteria)
				Beginning of Reading	Level to which Restored	Before Reading	After Reading	Product Recovered (+)					
0:6:20		Arrived											
		measured & record Dist											
		Set-up unit and Top off B Lead lines											
07:00		start Circulation											
07:45		Begin High Test							15785				
08:00			1	34	42	.550	.050	-.500	15792	-6	+114		
8:15			2	35		.800	1.060	-.750	826	+34			
8:30			3	35.1		.830	.150	-.680	839	+13	+247		
8:45			4	35.6		.820	.200	-.620	447	+8			
09:00			5	36.1					862	+15			
9:15			6	36.					876	+14	(air pocket Bled off)		
9:30			7	37.6		.730	.330	-.400	890	+14	+266	-.666	
9:45			8	38.3		.695	.400	-.295	907	+17	+323	-.527	
10:00			9	40.3		.400	.280	-.120	922	+15	+285	-.385	
10:15			10	42.3		.280	.350	+0.070	935	+13	+247	-.177	
10:30			11	43.6		.350	.490	+0.140	948	+13	+247	-.107	
		Low Level			12								
10:45			1	14.2		.490	.720	+0.230	958	+10	+190	+0.040	
11:00			2	14.6		.720	.930	+0.210	972	+14	+266	-.055	
11:15			3	14.6		.220	.445	+0.225	983	+11	+209	+0.016	
11:30			4	14.2		.445	.615	+0.170	15992	+7	.171	-.001	

CONTINUED

P-T Tank Test Data Chart
Additional Info

1 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 _____

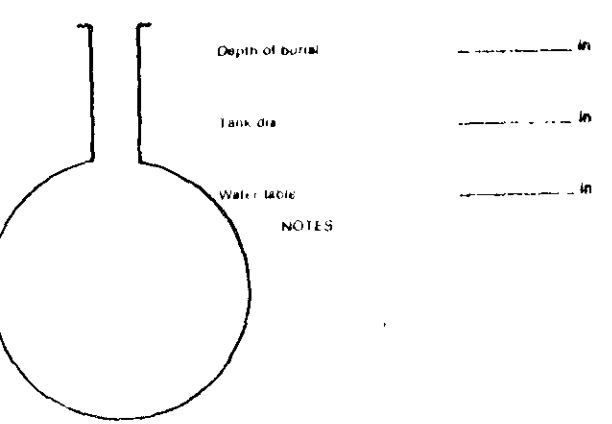
15. TANK TO TEST
 1 2
 Uncoiled
 Reg
 15a. BRIEF DIAGRAM OF TANK FIELD
 16. CAPACITY
 Nominal Capacity 8,000 Gallons
 By most accurate capacity chart available 7829 Gallons
 From Station Chart Tank Manufacturer's Chart Company Engineering Data Charts supplied with Other

17. FILL UP FOR TEST
 Suct. Water Bottom before fill up
 Tank Diameter 91 in
 Inventory
 Total Gallons ea. Reading 7829

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

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
 Bottom of tank to grade 1.37 in
 Add 30" for "T" probe assy 30 in
 Total tubing to assemble - approximate in
 20. EXTENSION HOSE SETTING
 Tank top to grade 45 in
 Extend hose on suction tube 6" or more below tank top 51 in
 If fill pipe extends above grade, use top of fill
 22. Thermal-Sensor reading after circulation 16904 digits 74.1 °F
 23. Digits per °F in range of expected change 322 digits

21. VAPOR RECOVERY SYSTEM Stage I Stage II
 24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
 Type of Product Unl. Reg.
 Hydrometer Employed 6 H
 Temperature in Tank After Circulation 74 °F
 Temperature of Sample 67 °F
 Difference (+/-) -4 °F
 Observed A.P.I. Gravity 57.5
 Reciprocal 1486 Page 61
 Total quantity in full tank (16 or 17) 7849 Reciprocal 1486 Volume change in this tank per °F 5.281965
 Transfer to Line 25a



COEFFICIENT OF EXPANSION (Complete after circulation)
 24a. Corrected A.P.I. Gravity 57.5
 Observed A.P.I. Gravity 57.5
 Hydrometer employed 6 H
 Observed Sample Temperature 69 °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

24c. FOR TESTING WITH WATER see Table C & D
 Water Temperature after Circulation Table C
 Coefficient of Water Table D
 Added Surfactant? Yes No Transfer COE to Line 25b

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 NFPA 30 Sections 2-324 and 2-72 and the tank manufacturer regarding allowable system test pressures

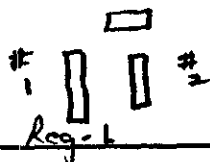
25. (a) 7849 x (b) 322 = (c) 2516.4036 gallons
 Total quantity in full tank (16 or 17) Coefficient of expansion for involved product Volume change in this tank per °F
 26. (a) 5.281965 + (b) 322 = (c) 1701.64036 This is test 016
 Volume change per °F (25 or 24b) Digits per °F in test Volume change per digit

15. TANK TO TEST

1

Identify by position
Reg Leaded
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD



16. CAPACITY

Nominal Capacity 19000
Gallons

By most accurate capacity chart available 9,724
Gallons

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

17. FILL-UP FOR TEST

Suck Water Bottom before Fill up

to 0 in 0 Gallons 91 in Tank Diameter

Inventory

Total Gallons as Reading 9,728

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

Water in tank Line(s) being tested with LVLTL

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 _____ in

3. Pressure at bottom of tank _____ P.S.I.

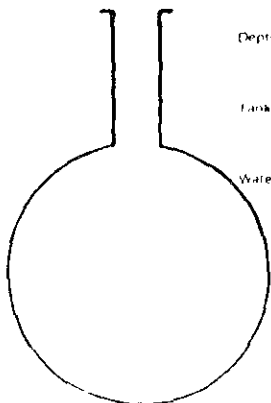
4. Pressure at top of tank _____ P.S.I.

Depth of burial _____ in

Tank dia _____ in

Water table _____ 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 NEPA, Sections 2-124 and 2-72 and the tank manufacturer's engineering data for system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* 137 in
Add 30" for "T" probe assembly 30
Total tubing to assemble - approximate 167 in

20. EXTENSION HOSE SETTING

Tank top to grade* 45 in
Extend hose on suction tube 6" or more below tank top 51 in

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

22. Thermal-Sensor reading after circulation 15786 digits
70-71 °F

23. Digits per °F in range of expected change 325 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity 57.9

Observed A.P.I. Gravity

Hydrometer employed 6 H

Observed Sample Temperature 68 °F

Corrected A.P.I. Gravity at 60°F From Table A 56.9

Coefficient of Expansion for Involved Product From Table B 0.0057154

Transfer COE to Line 25b

21. VAPOR RECOVERY SYSTEM Stage I Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product Reg Lead

Hydrometer Employed 6 H

Temperature in Tank After Circulation 70.6 °F

Temperature of Sample 68 °F

Difference (+/-) -3 °F

Observed A.P.I. Gravity 57.9

Reciprocal 1483 Page # 61

9,743 1483 6,510.7

Total quantity in full tank (16 or 17) Reciprocal Volume change in this tank per °F

Transfer to Line 25a

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

Water Temperature after Circulation Table C _____ °F

Coefficient of Water Table D _____

Aided Surfactant? Yes No Transfer CUE to Line 25b

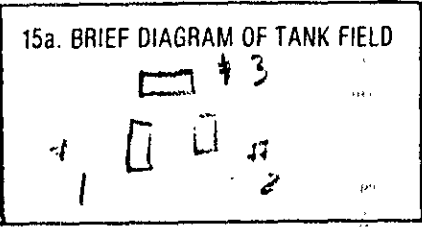
25. (a) 9,743 × (b) 0.0057154 = (c) 5,762.78 gallons

Total quantity in full tank (16 or 17) Coefficient of expansion for involved product Volume change in this tank per °F

26. (a) 6,561.1 (b) 325 = 0.002147

Volume change per °F (25 or 24b) Digits per °F in test Range (23) Volume change per digit Compute to 4 decimal places This is test factor (a)

15 TANK TO TEST
 Identity by position
A. Unleaded
 Brand and Grade



16. CAPACITY
 Nominal Capacity 6,000 Gallons
 By most accurate capacity chart available 5929 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 None in. Tank Diameter 36 in. Inventory 5929 Gallons
 Total Gallons as Reading 5929
120
5949
 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
- Is four pound rule required? Yes No
 - Height to 12" mark from bottom of tank _____ in.
 - Pressure at bottom of tank _____ P.S.I.
 - Pressure at top of tank _____ P.S.I.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
 Bottom of tank to grade* _____ 13 _____ in.
 Add 30" for "T" probe easy _____ 30 _____ in.
 Total tubing to assemble - approximate _____ in.

20. EXTENSION HOSE SETTING
 Tank top to grade* _____ 45 _____ in.
 Extend hose on suction tube 8" or more below tank top _____ 51 _____ in.
 *If fill pipe extends above grade, use top of fill.

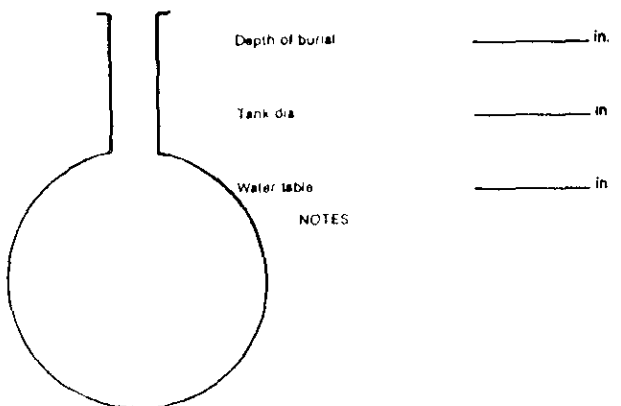
22. Thermal-Sensor reading after circulation 17328 digits
 Between 77 °F
 23. Digits per °F in range of expected change 319 digits

COEFFICIENT OF EXPANSION (Complete after circulation)
 24a. Corrected A.P.I. Gravity 56
 Observed A.P.I. Gravity _____
 Hydrometer employed _____ H
 Observed Sample Temperature _____ 75 _____ °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 1749
 Type of Product S Unleaded
 Hydrometer Employed _____ H
 Temperature In Tank _____ 77 _____ °F
 After Circulation _____ 75 _____ °F
 Temperature of Sample _____ 75 _____ °F
 Difference (+/-) _____ -2 _____ °F
 Observed A.P.I. Gravity 56
 Reciprocal 1508 Page # 60
5949 1508 3.9449602
 Total quantity in full tank (16 or 17) Reciprocal Volume change in this tank per °F
 Transfer to Line 26a

24c. FOR TESTING WITH WATER see Table C & D
 Water Temperature after Circulation _____ °F
 Table C _____ °F
 Coefficient of Water Table D _____
 Added Surfactant? Yes No Transfer COE to Line 25b.



NOTE: 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 NFPA 30 Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

25. (a) 5949 x (b) _____ = (c) _____ gallons
 Total quantity in full tank (16 or 17) Coefficient of expansion for involved product Volume change in this tank per °F
 26. (a) 3.9449602 x (b) 319 = (c) 0.123666
 Volume change per °F (25 or 24b) Digits per °F in test Range (23) Volume change per digit Compute to 4 decimal places This is test factor (a)

