ARCO Products Company
4 Centerpointe Drive
La Palma, California 90623-1066
Telephone 714 670 5300

Mailing Address: Box 5077
Buena Park, California 90622-5077

STID # 3943
3 @ 12,000 gal fuel tanks

June 2, 1995

Alameda County HazardoursMaterials
1131 Harbor Bay Parkway
Alameda, Ca. 94502

Certified P-221-161-577

Attention: Paul Smith

Re: Tank & Line Test Results
ARCO # 2152
2214 Center Street
Castro Valley, CA

Dear Mr. Smith:

This letter is to notify you that the tank and line system passed the tightness test per attached documentation. This facility had been shut down and was recently brought back up into operations.

ARCO is committed to the compliance of all environmental laws that govern the safe operation of underground storage tanks. Feel free to call me at 714-670-5423.

Sincerely,

ARCO Products Company
a division of Atlantic Richfield Company

Linda Andrews

Linda Andrews, PE
Senior Engineer
Environmental Compliance

95 JUN 16 PM 1:11
ENVIR. COMPLIANCE

Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☐ Tank(s) ☐

ARCO facility #2152

Name: ARCO | Address | Zip | Representative | Telephone

Name | Address | Zip | Representative | Telephone

2. OPERATOR

33141 CENTER ST CASTRO VALLEY CA

Name | Address | Zip | Telephone

3. REASON FOR TEST (Explain Fully)

OWNER'S REQUEST

4. WHO REQUESTED TEST AND WHEN

HOLMAN | EWG | ARCO

Name | Title | Company or Affiliation | Date

Address | Zip | Telephone

5. TANK INVOLVED Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
WEST	12,000	ARCO	UNL	5 YR	DW F.G.

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
FRONT OF STATION	CONCRETE	4"	2"	N/A	REMOTE SUCTION
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 from grade DRY TANK HOLE

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 NONE Company Name Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

TRIANGLE INC OF SACRAMENTO

JOE CHRISTY, TECH.

10. OTHER INFORMATION OR REMARKS

SELF CEWELING STAND PIPE

DTS-3000

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 METHOD

☒ PETRO TITE ☐ PETRO COMP ☐ QUICK CHECK 2000

11a. 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	Net Volume Change Per Hour	Date Tested
WEST	YES	+.0125 G.P.H.	5-1-95

12. SENSOR CERTIFICATION

5-1-95 Date

430 Serial No. of Thermal Sensor

13. CONTRACTOR CERTIFICATION

1. Technician T. Christy Certification # 0468944306 CS

2. STLC 93-1013 Certification # _____

TRIANGLE INC. OF SACRAMENTO
P.O. BOX 231067
SACRAMENTO, CA 95823-1067

Testing Contractor or Company. By. Signature

Address

PN6827

Name of Supplier, Owner or Dealer	Address No. and Street(s)	City	State	Date of Test

15. TANK TO TEST

WEST
Identity by position

ARCO / UNL
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 12,000 Gallons

By most accurate capacity chart available 11627 Gallons

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

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up Ø to ⅛" in.

Ø Gallons

92 Tank Diameter in.

Total Gallons ea. Reading

Inventory in Tank 11627

Water Bottom –

Top off equipment + 15

Total Quantity 11642

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

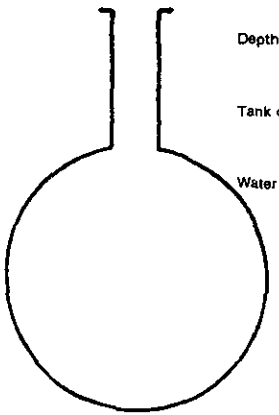
Complete section below.

1 *Is four pound rule required?* Yes ☒ No ☐

2 Height to 12" mark from grade 187 in

3 Pressure at bottom of tank 4.88 P.S.I

4 Pressure at top of tank 2.48 P.S.I.



Depth of burial 75 in

Tank dia 92 in

Water table to tank bottom Ø 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* 167 in.

Add 30" for "T" probe assy 30 in.

Total tubing to assemble — approximate 204 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 75 in

Extend hose on suction tube 6" or more below tank top in

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

USE WITH THERMAL SENSOR PN5039 (Blue Box)

22. Thermal-Sensor reading after circulation _____ digits

_____ °F Between

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

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☒ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product Gas.

Hydrometer Employed 6 H

Temperature in Tank After Circulation 63.1 °F

Temperature of Sample 63 °F

Difference (+/–) +0 °F

Observed A.P.I. Gravity 58.3

Reciprocal 1483 Page # 60

11643 (Total quantity in full tank (17)) × 1483 (Reciprocal) = 7.850303 (Volume change in this tank per °F)

Transfer to Line 26a

24a. IF USING THERMAL SENSOR DTS-2000 OR QC-2000 WHICH READ 1000 DIGITS PER °F TRANSFER 1000 TO LINE 26, DIGITS PER °F IN TEST RANGE.

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

Water Temperature after Circulation Table C from Thermal Sensor _____ °F

Coefficient of Water Table D _____

Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

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

26. (a) 7.850303 Volume change per °F (25 or 24b) ÷ 1000 Digits per °F in test Range (23 or 24a) = .0078503 Volume change per digit Compute to 4 decimal places. This is test factor (a)

27 Sensor Calibration 2337225+0			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
LOG OF TEST PROCEDURES												
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: Beginning of Reading	Standpipe Level in Inches: Level to which Restored	32 Product in Graduate: Before Reading	32 Product in Graduate: After Reading	33 Product Replaced (-) / Product Recovered (+)	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)
	SET UP PIT	TEST TANK & EQUIP										
1030	START PUMPS RUNNING											
	MAINTAIN FUEL	LEVEL	ABOVE	4.5"								
1350	TOOK 1ST FUEL	SAMPLE								A Factor .0079		
1358	TOOK 2ND FUEL	SAMPLE										
1300	TOOK 1ST SENSOR	READING					63	130		.0079		
1315	START H. LEVEL TEST	1		42	.140	.150	+.010	130	+10	+.079	-.069	
1330		2		42	.150	.180	+.030	141	+11	+.087	-.057	
1345		3		42	.180	.240	+.060	153	+12	+.095	-.035	
1400		4		42	.240	.300	+.060	164	+11	+.087	-.027	
1415		5		42	.300	.370	+.070	176	+12	+.095	-.025	
1430		6		42	.370	.450	+.080	187	+11	+.087	-.007	
1445		7		42	.450	.530	+.080	197	+10	+.079	+.001	
1500		8		42	.530	.610	+.080	208	+11	+.087	-.007	
1501	DROP TO LOW LEVEL											
1515	TOOK 2ND SENSOR	READING					N/A	257		N/A		
1530	TOOK 1ST SPRING	BACK	READING				N/A	267		N/A		
1545	TOOK 2ND SPRING	BACK	READING				N/A	278		N/A		
1550	START LOW LEVEL	1		12	.060	.100	+.040	283	+5	+.040	+.000	+.000
1555		2		12	.100	.140	+.040	288	+5	+.040	+.000	+.000
16.00		3		12	.140	.180	+.040	293	+5	+.040	+.000	+.000
1605		4		12	.180	.220	+.040	299	+6	+.047	-.007	-.007
1610		5		12	.220	.260	+.040	304	+5	+.040	+.000	-.007
1615		6		12	.260	.295	+.035	308	+4	+.032	+.003	-.004
1620		7		12	.295	.325	+.030	312	+4	+.032	-.002	-.006
1625		8		12	.325	.355	+.030	316	+4	+.032	-.002	-.008
1630		9		12	.355	.390	+.035	320	+4	+.032	+.003	-.005
1635		10		12	.390	.420	+.030	324	+4	+.032	-.002	-.007

1640		11		12	.430	.450	±.030	428	±4	±.032	-.002	-.007
1645		12		12	.450	.480	±.030	432	±4	±.032	-.002	-.011
1650		13		12	.480	.510	±.030	436	±4	±.032	-.002	-.013
1655		14		12	.510	.545	±.035	440	±4	±.032	±.003	-.010
1700		15		12	.040	.070	±.030	444	±4	±.032	-.002	-.012
1705		16		12	.070	.100	±.030	448	±4	±.032	-.002	-.014
1710		17		12	.100	.130	±.030	452	±4	±.032	-.002	-.016
1715		18		12	.130	.160	±.030	456	±4	±.032	-.002	-.018
1720		19		12	.160	.195	±.035	460	±4	±.032	±.003	-.015
1725		20		12	.195	.225	±.030	464	±4	±.032	-.002	-.017
1730		21		12	.225	.255	±.030	468	±4	±.032	-.002	-.019
1735		22		12	.255	.285	±.030	472	±4	±.032	-.002	-.021
1740		23		12	.285	.315	±.030	476	±4	±.032	-.002	-.023
1745		24		12	.315	.345	±.030	480	±4	±.032	-.002	-.025
							-.025 ± .0125						

P-T Tank Test Data Chart
Additional Info

-.0125

1 Net Volume Change at Conclusion of Precision Test ____ gph

Signature of Tester Ed Chitty

Date 5-1-95

2. Statement.

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by regulatory agency. 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 regulatory agency

OR

☐ Test invalid due to environmental or mechanical factors beyond control of the testing equipment.

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. The manufacturer of this test method does not assume any responsibility or liability for any loss of product to the environment

Tank Owner/Operator _____

Date _____

Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☐ Tank(s) ☐

ARCO facility #2152
Name ARCO — Address — Zip — Representative — Telephone

Name — Address — Zip — Representative — Telephone

2. OPERATOR

22141 CENTER ST CASTRO VALLEY, CA
Name — Address — Zip — Telephone

3. REASON FOR TEST (Explain Fully)

OWNER'S REQUEST

4. WHO REQUESTED TEST AND WHEN

HOLMAN — EW6 — ARCO
Name — Title — Company or Affiliation — Date

Address — Zip — Telephone

5. TANK INVOLVED Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx Age	Steel/Fiberglass
MIDDLE	12,000	ARCO	MID-GRADE	5 YR	DW F.G.

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
FRONT OF STATION	CONCRETE	4"	3"	N/A	REMOTE RED JACKET
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 from grade DRY TANK HOLE

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 NONE
Company — Name — Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

TRIANGLE INC OF SACRAMENTO
JOE CHRISTY, TECH.

10. OTHER INFORMATION OR REMARKS

SELF LEVELING STANDPIPE
DTS-2000

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 METHOD

☒ PETRO TITE II ☐ PETRO COMP ☐ QUICK CHECK 2000

11a. 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	Net Volume Change Per Hour	Date Tested
MIDDLE	YES	-.009 G.P.H.	5-2-95

12. SENSOR CERTIFICATION

5-2-95
Date
430
Serial No of Thermal Sensor

13. CONTRACTOR CERTIFICATION

Technicians
1. J. Christy
Certification # 040894130669
2. ST LIC 95-1012

Certification # ____

TRIANGLE INC. OF SACRAMENTO
P.O. BOX 231067
SACRAMENTO, CA 95823-1067

L. M. Chumley
Testing Contractor or Company. By. Signature

Address

PN6827

Name of Supplier, Owner or Dealer | Address No and Street(s) | City | State | Date of Test

15. TANK TO TEST

MIDDLE
Identity by position

ARCO/MID GRADE
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 12,000 Gallons

By most accurate capacity chart available 11637 Gallons

From
- [ ] Station Chart
- [X] Tank Manufacturer's Chart
- [ ] Company Engineering Data
- [ ] Charts supplied with Tank Tester
- [ ] Other

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up 0 in. to 1/8" | 0 Gallons | 92 in. Tank Diameter

Total Gallons ea. Reading

Inventory in Tank		11637
Water Bottom	−	0
Top off equipment	+	15
Total Quantity		11645

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

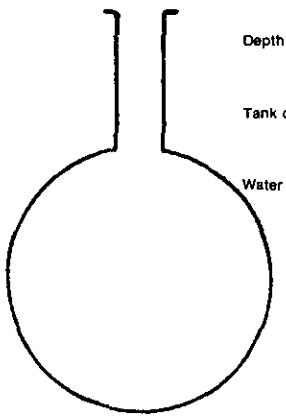
Complete section below:

1 Is four pound rule required? Yes [X] No [ ]

2 Height to 12" mark from grade* 193 in

3 Pressure at bottom of tank 5.04 PSI

4 Pressure at top of tank 2.64 PSI



Depth of burial 81 in

Tank dia 92 in

Water table to tank bottom 0 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* 173 in

Add 30" for "T" probe assy 30 in.

Total tubing to assemble — approximate 204 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 81 in

Extend hose on suction tube 6" or more below tank top ____ in.

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

USE WITH THERMAL SENSOR PN5039 (Blue Box)

22. Thermal-Sensor reading after circulation ____ digits

____ °F Between

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

24a. IF USING THERMAL SENSOR DTS-2000 OR QC-2000 WHICH READ 1000 DIGITS PER °F TRANSFER 1000 TO LINE 26, DIGITS PER °F IN TEST RANGE.

21. VAPOR RECOVERY SYSTEM

- [ ] Stage I
- [X] Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product GAS

Hydrometer Employed 6 H

Temperature in Tank After Circulation 63.1 °F

Temperature of Sample 65 °F

Difference (+/-) +2 °F

Observed A P I Gravity 57.9

Reciprocal 1491 Page # 61

11642 (Total quantity in full tank (17)) × .1491 (Reciprocal) = 7.808182 (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 from Thermal Sensor ____ °F

Coefficient of Water Table D ____

Added Surfactant? [ ] Yes [ ] No Transfer COE to Line 25b.

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

26. (a) 7.8081824 (Volume change per °F (25 or 24b)) − 1000 (Digits per °F in test Range (23 or 24a)) = .00078081 (Volume change per digit Compute to 4 decimal places.) This is test factor (a)

27 Sensor Calibration 225 / 225 — LOG OF TEST PROCEDURES			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.	Standpipe Level in Inches: Beginning of Reading	Standpipe Level in Inches: Level to which Restored	32. Product in Graduate: Before Reading	32. Product in Graduate: After Reading	33. Product Replaced (-): Product Recovered (+)	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)
	SETUP PIT TESTING EQUIP											
0930	START PUMPS RUNNING											
0945	MAINTAIN FUEL LEVEL ABOVE 48"										A FACTOR .0078	
1135	TOOK 1ST FUEL SAMPLE											
1140	TOOK 2ND FUEL SAMPLE											
1150	TOOK 1ST SENSOR READING						63	176		.0078		
1205	START H. LEVEL TEST	1		48	.040	.060	+.020	193	+16	+.125	-.105	
1220		2		48	.060	.120	+.060	305	+13	+.101	-.041	
1235		3		48	.120	.200	+.080	330	+15	+.117	-.037	
1250		4		48	.200	.290	+.090	335	+15	+.117	-.027	
1305		5		48	.290	.390	+.100	350	+15	+.117	-.017	
1320		6		48	.390	.490	+.100	365	+15	+.117	-.017	
1335		7		48	.490	.600	+.110	280	+15	+.117	-.007	
1350		8		48	.600	.710	+.110	394	+14	+.109	+.001	
1351	DROP TO LOW LEVEL											
1405	TOOK 2ND SENSOR READING						N/A	320		N/A		
1430	TOOK 1ST SPRING BACK READING						N/A	335		N/A		
1435	TOOK 2ND SPRING BACK READING						N/A	350		N/A		
1445	START LOW LEVEL	1		12	.060	.130	+.070	359	+9	+.070	+.000	+.000
1455		2		12	.130	.195	+.065	367	+8	+.062	+.003	+.003
1505		3		12	.195	.265	+.070	376	+9	+.070	+.000	+.003
1515		4		12	.265	.335	+.070	386	+10	+.078	-.008	-.005
1525		5		12	.335	.400	+.065	394	+8	+.062	+.003	-.002
1535		6		12	.400	.470	+.070	404	+10	+.078	-.008	-.010
1545		7		12	.470	.540	+.070	413	+9	+.070	+.000	-.010
1555		8		12	.540	.610	+.070	423	+9	+.070	+.000	-.010
1605		9		12	.610	.680	+.070	433	+10	+.078	-.008	-.018
1615		10		12	.070	.140	+.070	441	+9	+.070	+.000	-.018

1625		11		12	.140	.200	+.060	449	+8	+.062	.002	.030
1635		12		12	.200	.265	+.065	458	+9	+.070	-.005	-.035
1645		13		12	.265	.325	+.060	466	+8	+.062	-.002	-.037
1655		14		12	.325	.390	+.065	474	+8	+.062	+.003	-.034
1705		15		12	.390	.450	+.060	482	+8	+.062	-.002	-.036
1715		16		12	.450	.515	+.065	490	+8	+.062	+.003	-.033
1725		17		12	.515	.575	+.060	498	+8	+.062	-.002	-.035
1735		18		12	.575	.635	+.060	506	+8	+.062	-.002	-.037

-.037 ÷ 3 = -.009 G.P.H.

P-T Tank Test Data Chart
Additional Info

1 Net Volume Change at Conclusion of Precision Test -.009 gph

Signature of Tester

Date 5-2-95

2 Statement.

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by regulatory agency 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 regulatory agency

OR

☐ Test invalid due to environmental or mechanical factors beyond control of the testing equipment.

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 The *manufacturer of this test method* does not assume any responsibility or liability for any loss of product to the environment

Tank Owner/Operator ____________________

Date ____________________

Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☐ Tank(s) ☐

ARCO Facility #2152

Name ARCO Address Zip Representative Telephone

Name Address Zip Representative Telephone

2. OPERATOR

2214 CENTER ST, CASTRO VALLEY, CA.

Name Address Zip Telephone

3. REASON FOR TEST (Explain Fully)

OWNER'S REQUEST

4. WHO REQUESTED TEST AND WHEN

HOLMAN ENG ARCO

Name Title Company or Affiliation Date

Address Zip Telephone

5. TANK INVOLVED Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx Age	Steel/Fiberglass
EAST	12,000	ARCO	SUPER	5 YR	DW F.G.

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
FRONT OF STATION	CONCRETE	4"	2"	N/A	REMOTE
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 from grade DRY TANK HOLE

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 NONE Company Name Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

TRIANGLE INC OF SACRAMENTO

JOE CHRISTY, TECH.

10. OTHER INFORMATION OR REMARKS

SELF LEVELING STAND PIPE

DTS-9000

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 METHOD

☒ PETRO TITE II ☐ PETRO COMP ☐ QUICK CHECK 2000

11a. 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	Net Volume Change Per Hour	Date Tested
EAST	YES	-.010 G.P.H.	5-3-95

12. SENSOR CERTIFICATION

5-3-95 Date

430 Serial No. of Thermal Sensor

13. CONTRACTOR CERTIFICATION

1. Technicians J. Christy Certification # 040894B0669

2. STC 93-1015 Certification # _____

TRIANGLE INC. OF SACRAMENTO
P.O. BOX 231067
SACRAMENTO, CA 95823-1067

T. M. Chmura

Testing Contractor or Company By: Signature

Address

PN6827

Name of Supplier, Owner or Dealer	Address No and Street(a)	City	State	Date of Test

15. TANK TO TEST

EAST
Identity by position

ARCO / SUPER
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 12,000 Gallons

By most accurate capacity chart available 11627 Gallons

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

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up 2 in. to ⅛"

59 Gallons

92 in Tank Diameter

Total Gallons ea Reading

Inventory in Tank		11627
Water Bottom	-	59
Top off equipment	+	15
Total Quantity		11583

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.

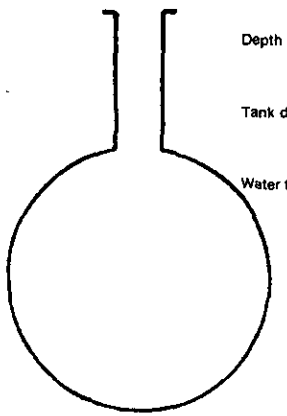
Complete section below

1 Is four pound rule required? Yes ☒ No ☐

2. Height to 12" mark from grade 199 in

3 Pressure at bottom of tank 5.19 PSI

4 Pressure at top of tank 3.79 PSI



Depth of burial 87 in

Tank dia 92 in

Water table to tank bottom Ø 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* 179 in.

Add 30" for "T" probe assy 30 in.

Total tubing to assemble — approximate 216 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 87 in

Extend hose on suction tube 6" or more below tank top in

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

USE WITH THERMAL SENSOR PN5039 (Blue Box)

22. Thermal-Sensor reading after circulation ____ digits ____ °F Between

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

24a. IF USING THERMAL SENSOR DTS-2000 OR QC-2000 WHICH READ 1000 DIGITS PER °F TRANSFER 1000 TO LINE 26, DIGITS PER °F IN TEST RANGE.

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☒ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product 6115

Hydrometer Employed C H

Temperature in Tank After Circulation 64.4 °F

Temperature of Sample 65 °F

Difference (+/-) +1 °F

Observed A.P.I. Gravity 58.3

Reciprocal 1485 Page # 62

11583 (Total quantity in full tank (17)) × 1485 (Reciprocal) = 7.8 (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 from Thermal Sensor °F

Coefficient of Water Table D

Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

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

26. (a) 7.8 Volume change per °F (25 or 24b) ÷ 1000 Digits per °F in test Range (23 or 24a) = .0078 Volume change per digit Compute to 4 decimal places. This is test factor (a)

27 Sensor Calibration 225, 725 +0 LOG OF TEST PROCEDURES			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	Standpipe Level in Inches: Beginning of Reading	Standpipe Level in Inches: Level to which Restored	32 Product in Graduate: Before Reading	32 Product in Graduate: After Reading	33. Product Replaced (-) / Product Recovered (+)	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)
	SET UP PIT TESTING EQUIP											
0930	START PUMPS RUNNING										A FACTOR .0028	
0945	MAINTAIN FUEL LEVEL ABOVE 43"						43"					
1130	TOOK 1ST FUEL SAMPLE											
1135	TOOK 2ND FUEL SAMPLE											
1145	TOOK 1ST SENSOR READING						64	455		.0078		
1200	START HI LEVEL TEST	1		43	.080	.090	+.010	470	+15	+.117	-.107	
1215		2		43	.090	.110	+.020	487	+17	+.133	-.113	
1230		3		43	.110	.160	+.050	503	+16	+.125	-.075	
1245		4		43	.160	.240	+.080	520	+17	+.133	-.053	
1300		5		43	.240	.330	+.090	535	+15	+.117	-.027	
1315		6		43	.330	.430	+.100	551	+16	+.125	-.025	
1330		7		43	.430	.530	+.100	565	+14	+.109	-.009	
1345		8		43	.530	.640	+.110	579	+14	+.109	+.001	
1346	DROP TO LOW LEVEL											
1400	TOOK 2ND SENSOR READING						N/A	660		N/A		
1445	TOOK 1ST SPRING BACK READING						N/A	677		N/A		
1430	TOOK 2ND SPRING BACK READING						N/A	691		N/A		
1440	START LOW LEVEL TEST	1		12	.080	.155	+.075	701	+10	+.078	-.003	-.003
1450		2		12	.155	.225	+.070	710	+9	+.070	+.000	-.003
1500		3		12	.225	.295	+.070	719	+9	+.070	+.000	-.003
1510		4		12	.295	.365	+.070	729	+10	+.078	+.078	-.011
1520		5		12	.365	.430	+.065	737	+8	+.062	+.003	-.008
1530		6		12	.430	.500	+.070	746	+9	+.070	+.000	-.008
1540		7		12	.500	.570	+.070	755	+9	+.070	+.000	-.008
1550		8		12	.570	.640	+.070	765	+10	+.078	-.008	-.016
1600		9		12	.060	.130	+.070	774	+9	+.070	+.000	-.016
1610		10		12	.130	.195	+.065	783	+9	+.062	+.003	-.013

1620		11		12	.175	.260	±.060	170	0			
1630		12		12	.260	.330	±.070	800	+10	±.078	-.008	-.018
1640		13		12	.330	.400	±.070	809	+9	±.070	±.000	-.018
1652		14		12	.400	.465	±.065	818	+9	±.070	-.005	-.023
1700		15		12	.465	.530	±.065	826	+8	±.067	±.003	-.020
1710		16		12	.530	.600	±.070	835	+9	±.070	±.000	-.020
1720		17		12	.060	.125	±.065	844	+9	±.070	-.005	-.025
1730		18		12	.125	.190	±.065	853	+9	±.070	-.005	-.030

-.030 ÷ 3 = -.010 E.P.H.

P-T Tank Test Data Chart
Additional Info

1 Net Volume Change at Conclusion of Precision Test -.010

Signature of Tester: [signature]

Date: 5-2-95

2 Statement:

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by regulatory agency. 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 regulatory agency

OR

☐ Test invalid due to environmental or mechanical factors beyond control of the testing equipment.

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. The manufacturer of this test method does not assume any responsibility or liability for any loss of product to the environment

Tank Owner/Operator _____

Date _____

DATA CHART
For Use With
petro tite LINE TESTER

1 LOCATION: 22141 CENTER ST CASTRO VALLEY CA
Street No. and/or Corner | City | State | Telephone No.

2 OWNER: ARCO
Name | Address | Representative | Position | Telephone No.

3 OPERATOR:
Name | Dealer, Mgr. or Other | Address (If different than Location) | Telephone No.

4 REASON FOR TEST OWNER'S REQUEST

5 TEST REQUESTED BY: HOLMAN ENG.
Name | Position | Order No. | Billing Address

6 SPECIAL INSTRUCTIONS:

7 CONTRACTOR OR COMPANY MAKING TEST MECHANIC(S) NAME TRIANGLE INC OF SACRAMENTO

8 IS A TANK TEST TO BE MADE WITH THIS LINE TEST? [X] YES [ ] NO

9 MAKE AND TYPE OF PUMP OR DISPENSERS RED JACKET

10 WEATHER _____ TEMPERATURE IN TANKS _____ °F _____ °C

COVER OVER LINES CONCRETE & B.T. (Concrete, Black Top, etc.) APPROXIMATE BURIAL DEPTH _____

OWNER: Name ARCO
LOCATION: City CASTRO VALLEY State CA
DATE OF TEST: Year 85 Mo. 5 Day 7

11 IDENTIFY EACH LINE AS TESTED	12 TIME (MILITARY)	13 LOG OF TEST PROCEDURES, AMBIENT TEMPERATURE, WEATHER, ETC.	14 PRESSURE psi OR kPa BEFORE	14 PRESSURE psi OR kPa AFTER	15 VOLUME READING BEFORE	15 VOLUME READING AFTER	15 VOLUME NET CHANGE	16 TEST RESULTS CONCLUSIONS, REPAIRS AND COMMENTS
MID		CLOSE SAFETY VALVES &			INSTALL ISOLATION PLUG			
GRADE	1139	BLEED BACK	50	0	.0350	.0650	+.0300	
	1140	START TEST		50	.0350			
	1155		50	50	.0350	.0350	+.0000	
	1210		50	50	.0350	.0350	+.0000	
	1225		50	50	.0350	.0350	+.0000	
	1240		50	50	.0350	.0350	+.0000	+.0000 LINE TIGHT
	1241	BLEED BACK	50	0	.0350	.0700	+.0350	

SAFEX		CLOSE SAFEX	VALVES & INSTALL					SAFEX LINE
	1345	BLEED BACK	50	0	.0300	.0760	+.0460	
	1350	START TEST		50	.0300			
	1305		50	50	.0300	.0300	+.0000	
	1310		50	50	.0300	.0300	+.0000	
	1335		50	50	.0300	.0300	+.0000	
	1350		50	50	.0300	.0300	+.0000	+.0000
	1351		50	0	.0300	.0750	+.0450	/ LINE TIGHT
W/L		CLOSE SAFEX	VALVES & INSTALL					150# W/L LINE
	1004	BLEED BACK	50	0	.0340	.0690	+.0450	
	1005	START TEST		50	.0340			
	1010		50	50	.0340	.0340	+.0000	
	1035		50	50	.0340	.0340	+.0000	
	1050		50	50	.0340	.0340	+.0000	
	1105		50	50	.0340	.0340	+.0000	
	1106	BLEED BACK	50	0	.0340	.0690	+.0450	+.0000 LINE TIGHT