

REACTOR CONTAINMENT BUILDING
INTEGRATED LEAK RATE TEST (ILRT)
FOR THE
LA CROSSE BOILING WATER REACTOR
(LACBWR)
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I. INTRODUCTION

The ninth Type A Reactor Containment Building Integrated Leak Rate Test (ILRT) for the La Crosse Boiling Water Reactor (LACBWR) was successfully performed December 14-18, 1980. The test was performed in accordance with Section 5.2.1.1 of the LACBWR Technical Specifications and the applicable requirements of Title 10 of the Code of Federal Regulations, Part 50, Appendix J. This test was the second to be performed on an accelerated test schedule basis due to the failure of the two consecutive tests performed in July 1975 and October 1978. The first test performed on the accelerated basis was conducted May 12-17, 1979, with successful results. The requirement is such that a Type A test shall be performed at each plant shutdown for refueling until two consecutive Type A tests meet the acceptance criteria, at which time the original retest schedule may be resumed. The test was performed at a test pressure (P_a) of 52-53 psig and the absolute method of leakage rate determination, specifically the mass plot analysis technique, was utilized. Leakage rates were determined in accordance with ANS-N274, "Containment System Leakage Testing Requirements," Revision 2, May 15, 1978.

Dairyland Power Cooperative (DPC) was responsible for conducting the test. DPC personnel performed the test in accordance with LACBWR Operating Manual Procedure, "Containment Vessel Leak Rate Test," as contained in Volume XI, Section 2.

II. SUMMARY AND CONCLUSIONS

Results of the December 1980 Type A Test indicated an integrated leakage rate (L_{am}) of 0.09192 weight percent per day at the 95 percent upper confidence level. The Technical Specification maximum allowable test leakage rate is 0.1 weight percent per day and thus a successful test result was achieved. The calculated leakage rate, without the 95 percent upper confidence level factor, was determined to be 0.08920 weight percent per day.

A supplemental verification leak test was performed after the 24-hour Type A test to verify the accuracy of the Type A test results. Results of the supplemental test were acceptable based on the requirements of Paragraph III.3.(b) of 10CFR50, Appendix J.

III. TEST EQUIPMENT

The LACBWR Type A Test leakage rate detection system consists of twelve (12) 3-wire platinum resistance temperature detectors (RTD's), six (6) lithium chloride dew cells and a fused quartz bourdon tube manometer. The RTD's and dewcells are positioned in the containment structure as illustrated in Figure 1. The analog signals from these sensors are input to a data acquisition system located external to the containment structure. The data acquisition system interrogates the RTD and dewcell sensors on demand for dry bulb temperature and humidity information. The containment absolute pressure information is input to the fused quartz manometer, externally connected to the containment structure. The analog signals from the various sensors are processed through an analog to digital converter and transmitted at preset intervals to a Nuclear Data ND6600 computer.

The computer operates in a real time mode to collect and store the transmitted information and calculates on demand the containment air leakage rate. The block of stored information for leakage rate calculation is selected from any portion of the stored data base.

Figure 1 also illustrates the equipment utilized for conduct of the supplemental verification test in which a calibrated leak is introduced to the containment structure to check the sensitivity of the leakage rate measurement system.

The instrumentation used was calibrated with traceability to the National Bureau of Standards within six months prior to the conduct of the test. Individual sensor/component performance specifications are provided below.

Drybulb Temperature Measurement (RTD)

Configuration:	3-wire
Operating Range:	0 to 150°F
Accuracy:	60-120°F, $\pm 0.1^\circ\text{F}$
Repeatability:	$\pm 0.1^\circ\text{F}$
Sensitivity:	0.01°F
Element:	Platinum
Quantity:	12

Dewpoint Temperature Measurement (Dew Cell)

Dewpoint Range:	32 to 140°F
Dewpoint Accuracy:	$\pm 1.0^\circ\text{F}$ over 60°F Range
Dewpoint Repeatability:	$\pm 0.5^\circ\text{F}$
Dewpoint Sensitivity:	$\pm 0.1^\circ\text{F}$
Type of Sensor:	Lithium Chloride
Quantity:	6 (See Note 1)

Note 1: During the test, two dew cell units, Nos. 17 and 18 (Refer to Figure 1) appeared to malfunction, one reading significantly high and the other low. A new Instrument Selection Guide Criteria (ISG) factor was calculated to determine whether a valid test could be conducted without using the readings from these two dew cells. The calculated ISG was ± 0.00910 %/day. The ISG criteria is .25 (L_a), which is 0.025 %/day. Since the calculated ISG was within the limit, a valid test could be performed with the data from the two malfunctioning dew cells eliminated from the calculations.

The manufacturer has been contacted, and an investigation is underway to determine the cause of the failures, in order to prevent reoccurrence during future tests.

Pressure Measurement (Manometer)

Operating Range:	0 to 100 psia
Accuracy:	$\pm .02\%$ of reading
Repeatability:	$\pm .001\%$ of full scale
Stability:	Less than .001% F.S. per degree Fahrenheit Ambient Temperature Range
Type of Sensor:	Quartz Bourdon Tube
Quantity:	1

Flow Measurement (Wet Test Gas Meter)

Capacity:	5-60 ft ³ /hour
Pressure Range:	0.5 to 8.0 Inches H ₂ O
Accuracy:	$\pm .5\%$

Data Acquisition System

A/D Conversion:	Dual Slope Integration V \rightarrow F, Constant Scan Rate
Display:	5 + Digit, Polarity, Decimal and Legend
Sampling Rate:	2.5 Channels/Seconds
Common Mode Rejection:	DC-180db, 10,000 Ohm Unbalance AC-180db at 50-60 Hz
Input Impedance:	1,000 Meg Ohms/Volt
Ambient Temp. Range:	0-50°C
Zero Offset:	Recalibrate before Each Reading Automatically
Voltage Temperature:	$\pm .002\%$ of Reading ($.25 \mu\text{V}/^\circ\text{C}$)
Accuracy:	$\pm .005\%$ F.S., $\pm .005\%$ of Reading at 25°C with $\pm 10\%$ A.C. Power Variation

IV. CALCULATIONAL METHOD

The calculation of the containment leakage rate was performed utilizing the mass point analytical technique in accordance with the industry recognized standard ANS-274, "Containment System Leakage Testing Requirements," Revision 2 - May 15, 1978. This method of leakage rate determination depends on the measurement of the temperature and pressure of the containment atmosphere with correction for changes in water vapor pressure. These parameters are utilized to determine a contained mass of air by application of the perfect gas law. The test data thus consists of a time series of independent values of contained air mass. It is assumed that leakage rate is constant with time, thus the data can be analyzed by the method of linear least squares. The slope of the air mass versus time represents the rate of change of air mass with respect to time, which is the leakage rate. An upper confidence limit (UCL) was set such that there was only a 5 percent chance that the actual containment leakage rate exceeded the calculated value. The derivations and details for this method of calculation are presented in the above stated ANS document.

Symbols and Subscripts

Symbols:

- P - Total absolute pressure in the containment (psia)
- T - Mean absolute temperature of the containment air ($^{\circ}\text{R}$)
- V - Internal free volume of the containment (assumed to remain constant for the duration of the test - ft^3)
- R - Gas constant for air (53.35 $\text{ft}\cdot\text{lbf}/\text{lbm}\cdot^{\circ}\text{R}$)
- P_v - Partial pressure for water vapor (PSIA)
- N - Number of pairs of measurement
- W - Measured mass of contained air (lbm)
- T - Time interval of measurement after initial measurement (hr)
- \bar{W} - A & B - Least squares line relating measured masses to corresponding times of measurement
- A - Slope of least squares line
- B - Intercept of least squares line
- S_a - Estimate of standard deviation of slope of least squares line
- S_b - Estimate of standard deviation of intercept of least squares line
- S_{ab} - Estimate of covariance between slope and intercept of least squares line

L - $2400A/B$ - Estimate of leakage rate, derived from least squares slope and intercept, expressed as a positive number (%/day)

T₉₅ - 95th percentile of student's t-distribution

UCL - Exact upper one-sided limit of a 95% confidence level for the leakage rate

Subscripts:

i - Indicates the ith data point

The calculational methods used in the computer code for mass point technique makes use of a least squares analysis as follows:

The least squares line is given by:

$$\bar{W} = At + B$$

where the slope (A) and intercept (B) are given, respectively by:

$$A = \frac{N(\sum t_i W_i) - (\sum W_i)(\sum t_i)}{N(\sum t_i^2) - (\sum t_i)^2}$$

AND

$$B = \frac{(\sum W_i)(\sum t_i^2) - (\sum t_i W_i)(\sum t_i)}{N(\sum t_i^2) - (\sum t_i)^2}$$

Each t_i is the elapsed time between a clock time for the initial reading and the clock time at which the ith reading is taken. The formulas for A and B do not require equal time intervals.

The leakage rate is expressed as the ratio of the rate of change of the mass and the mass in the containment at time $t_1 = 0$. The values of t_i have units of hours and since the leakage rate is desired in Wt%/day, the estimated mass point leakage rate, expressed as a positive number, is calculated as follows:

$$L = (-2400)(A/B)$$

The uncertainty in the estimated value of leakage rate is assessed in terms of the standard deviations of A and B and their covariance followed by the computation of an upper limit of the 95th confidence level for the leakage rate.

The estimate of the common standard deviation of the masses with respect to the line is given by:

$$S = \left[\frac{\sum (W_i - \bar{W})^2}{N-2} \right]^{1/2}$$

where:

W_i is the measured mass at time t_i and

\bar{W}_i is the estimated mass at time t_i from $\bar{W}_i = At_i + B$

In order to determine the standard deviation of the slope (S_a) let:

$$K = \frac{S}{[N(\sum t_i^2) - (\sum t_i)^2]^{1/2}}$$

then:

$$S = K[N]^{1/2}$$

To determine the standard deviation of the intercept (S_b):

$$S_b = K[\sum t_i^2]^{1/2}$$

and the covariance of the slope and intercept (S_{ab}) is

$$S_{ab} = K^2 [-\sum t_i]$$

In order to calculate the exact upper one-sided limit of a 95% confidence level for the leakage rate, let:

$$a = B^2 - t_{95}^2 (S_b^2)$$

$$b = AB - t_{95}^2 (S_{ab}) \text{ and}$$

$$c = A^2 - t_{95}^2 S^2$$

then the exact upper one-sided limit of a 95% confidence level for the leakage rate is determined as follows:

$$UCL (+95) = -2400 [b - (b^2 - ac)^{1/2}] / a$$

All raw data for temperature and dewpoint input to the calculational methods described above was corrected for instrument error using calibration data provided by the equipment supplier. In addition, the pressure sensor readings were corrected using a similar technique. Containment Subvolume Weighting factors were assigned to the temperature and dew point sensors thus providing a single ambient and dew point temperature reading indicative of containment conditions. Weighting factors were modified during the conduct of the test to compensate for the two malfunctioning dew cells discussed in Section III.

With regard to computer code qualification, an internal audit was performed on the computer code prior to first utilizing it in performing a leak rate test on the LACBWR containment. The audit consisted of an in-depth check of the equations used to confirm agreement with those recommended by the governing standards. In addition, independent leakage rate calculations were performed during the initial phases of the Type A Test and compared with computer code results. The results of this check agreed favorably with the values obtained using the computer code.

The calibrated leakage rate (L_0) which is used for determination of acceptance of the supplemental verification test was computed using the following equation for a point calculation:

$$\frac{\%/\text{day}}{\text{(Calibrated Leakage Rate)}} = \frac{(14.7 \text{ lbf/in}^2)(144 \text{ in}^2/\text{ft}^2)(\text{SCFH From Flow Device})(2400)}{(53.35 \text{ ft-Lbf/Lbm}^{\text{OR}})(527.69^{\text{OR}})(\text{Containment Air Mass, Lbm})}$$

A running sum of leakage rate (%/d) versus Time Data sets were introduced to a least square fit analysis for average calibrated leakage rate determination. The calibrated leakage rate was calculated by use of a programmable calculator. A minimum number of 20 data sets approximately equally spaced within a minimum time period of 4 hours was required for an acceptable data base.

V. RESULTS ANALYSIS

Referring to the nomenclature as used in 10CFR50, Appendix J, the total measured as-found containment leakage rate (L_{am}) was determined to be as follows:

- Calculated Leakage Rate, Wt.%/day: 0.08920
- Calculated Leakage Rate at 95% Upper Confidence Level, Wt.%/day: 0.09192

The maximum allowable test leakage rate (L_{am}) shall not exceed 0.1 Wt.%/day at a test pressure of 52 psig (P_a) according to LACBWR Technical Specifications. Therefore, this test is considered successful. To provide a margin for possible deterioration of the containment leakage integrity during the interval between Type A tests, LACBWR Technical Specifications require that the leakage rate acceptance criteria be reduced to $.75 L_{am}$ or 0.075 Wt.%/day prior to plant startup. This criteria was not met, so valve modifications were made prior to plant startup to reduce leakage to within the 0.075 Wt.%/day startup criteria.

The Reactor Vent Header Valve and Reactor Cavity Purge Check Valve had not passed Type C Tests conducted during the Type A Test. (Refer to Section VI.B). Replacement of these valves resulted in reduced leakage of 5.77 SCFH. The Feedwater Check Valve (65-26-001) was sent to the factory for reapplication of its Teflon sealing surface. The leakage through the Feedwater Check Valve was reduced from 10.256 SCFH, measured during the Type A Test, to 0.02 SCFH after repair. Therefore, a total of 16.01 SCFH of leakage was reduced from paths measured during the Type A Test. This corresponds to an as-left leakage rate of 0.06 %/day, which was within the plant startup criteria of 0.075 %/day.

Appendix 1 contains leakage rate test calculated data and results including the zero time intercept and slope of the containment air mass vs. time relationship depicted in Figure 2.

Raw data was collected at 10-minute intervals over a 24-hour period on December 16 and 17, 1979, resulting in 145 total data sets for integration into the leakage rate calculation. Appendix 2 contains the test raw data used.

No leakage paths were isolated during test conduct.

The accuracy of the Type A Test results was verified by a supplemental test by bleeding air out of containment at a known rate and then comparing the composite leakage rate for the containment during this time (L_C) to the previously determined containment integrated leakage rate (L_{am}). In accordance with 10CFR50, Appendix J, the following criteria must be satisfied for the supplemental verification test to be acceptable:

$$(L_0 + L_{am} - 0.25 L_a) \leq L_C \leq (L_0 + L_{am} + 0.25 L_a)$$

where: L_0 = Calibrated Leakage Rate (superimposed) Wt.%/day

L_{am} = Calculated Integrated Leakage Rate, Wt.%/day

L_C = Composite Leakage Rate, Wt.%/day

L_a = Maximum Allowable Leakage Rate at Test Pressure $P_a = 0.1$ Wt.%/day

The superimposed leakage rate (L_0) was determined to be 0.06181 Wt.%/day using the calculational method described in Section IV. The calculated composite leakage rate (L_C) was determined to be 0.13328 Wt.%/day using the computerized calculation methods previously described in Section IV. The integrated leakage rate (L_{am}) was previously calculated to be 0.08920 Wt.%/day. Using the criteria discussed above, the following demonstrates criteria acceptance and therefore that the 24-hour integrated test results are valid.

$$0.06181 + 0.08920 - 0.25 (.1) \leq 0.13328 \leq 0.06181 + 0.08920 + 0.25(.1)$$

$$0.12601 \leq 0.13328 \leq 0.17601$$

Twenty-eight (28) sets of data were acquired between the hours of 1805 and 2235 on December 17, 1980, for supplemental verification test computation. The data was collected at 10-minute intervals. Appendix 3 contains calculated supplemental verification test data for determination of the composite leakage rate (L_C). Appendix 4 contains the raw data utilized in computation of the composite leakage rate (L_C) and the calibrated (superimposed) leakage rate (L_0).

VI. SUMMARY REPORT OF TYPE B AND C LOCAL LEAKAGE RATE TESTS

A. Introduction

Results of the reactor containment penetration leakage tests (Type B) and isolation valve leakage tests (Type C) are found in Appendix 5, Summary of Type B and C Leakage Test Results, 6/79 - 12/80.

The acceptance criteria set forth in Sections 5.2.1.2 and 5.2.1.3 of LACBWR Technical Specifications were considered the limiting criteria; the total leakage limits established in 10CFR50, Appendix J (Sections III.B.3 and III.C.3) are not contained in existing LACBWR Technical Specifications.

The LACBWR staff was responsible for conducting the tests which were performed in accordance with approved procedures.

B. Summary of Tests Not Meeting Acceptance Criteria

1. Penetration: Emergency Airlock
 Penetration No.: M-38
 Acceptance Criteria: 0.749 SCFH*
 Test Date: 12/23/79
 Test Leakage Rate: 1.0372

*0.02 L_{po} where $L_{po} = 37.5$ SCFH.

A Type B penetration leakage rate test to determine the leakage rate of the Containment Building emergency airlock was performed on December 23, 1979. The results of the test did not meet the acceptance criteria as specified in the LACBWR Technical Specifications, Section 5.2.1.2.6.

Since the inner door of the emergency airlock provided a leak-tight closure, containment integrity was not jeopardized by the observed deficiency. The reactor was in Operating Condition No. 1 - Power Operation - at the time of the test.

An investigation was conducted promptly to determine the source of leakage. The problem was traced to a leak in the mechanical seal of the interior door operating shaft which extends through the airlock shell to the outside. Two o-rings and the shaft packing were found to be flat. A new seal was installed and the Type B leak rate test was reperfomed with zero leakage observed. No prior incidents related to degradation of the emergency airlock shaft seals have been recorded. (Ref.: RO-79-19, LAC-6711)

2. Penetration: Electrical Penetration Unit Nos. 3, 4, and 5
 Acceptance Criteria: 0.375 SCFH Each*
 Test Date: 4/9/80

*0.01 L_{po} where $L_{po} = 37.5$ SCFH.

As a result of conducting Type B leak tests on April 9, 1980, the indicated leakage flow rates from electrical penetration unit Nos. 3, 4, and 5 were found to exceed the permissible value prescribed in LACBWR Technical Specifications, Section 5.2.1.2.(b). The leakage rates found were 0.589 SCFH on penetration Unit No. 3, 12.377 SCFH on Unit No. 4, and 0.589 on Unit No. 5.

The subject units employ the MI cable-type penetration. This type has solid conductors, compacted magnesium oxide insulation and a round copper sheath. The MI cable runs through an inner chamber formed by the containment shell and an inner chamber wall; the chamber for each unit is 8 feet 8 inches high with a cross section 3 inches deep and 8 inches wide. The penetration is made by passing the MI cable through brass glands which are screwed into 3/8-inch tapped holes in the containment shell and in the inner chamber wall. The copper sheath is sealed at the gland. The inner chamber is pressurized to leak-test the penetrations. Each unit contains sixty-six (66) individual cable penetrations.

The individual cable penetrations listed below were observed to be leaking by the soap bubble detection method at the penetration side indicated. Inspection revealed the noted penetration condition.

PENETRATION UNIT NO. 3

<u>Individual Penetration No.</u>	<u>Penetration Side*</u>	<u>Discovered Condition</u>
25B	R	Cracked Gland Body
26B	T	Cracked Gland Body
30B	R	Cracked Gland Body

PENETRATION UNIT NO. 4

<u>Individual Penetration No.</u>	<u>Penetration Side*</u>	<u>Discovered Condition</u>
25B	T	Cracked Gland Body
26A	T	Cracked Gland Body

PENETRATION UNIT NO. 5

<u>Individual Penetration No.</u>	<u>Penetration Side*</u>	<u>Discovered Condition</u>
5B	R	Slight Seepage from Under Gland Nut
12A	T	Cracked Gland Body
13A	T	Cracked Gland Body

*R denotes reactor side; T denotes turbine side.

Three of the above individual penetrations had leaked in January 1979 and had been sealed with Scotch Cast Resin #5 epoxy sealant compound and one had been sealed with the epoxy after leaking in 1975 and in 1978. Four of the individual penetrations had no previous leakage history.

None of the individual penetrations on which Velodur Metal, a high strength, high heat resistant sealing product, had been used leaked. This sealing product was first used at LACBWR in April 1979, and it is believed it will provide a significant improvement over the previously used sealing material. The results of these tests support this belief.

Repairs were effected which consisted of replacement of the entire individual MI cable penetration at penetration locations 25B, 26B, and 30B on Unit No. 3 and 25B and 26A on Unit No. 4. The cracks in the glands in individual Unit No. 5 penetrations 12A and 13A were soldered and tested satisfactorily. This repair method has also demonstrated success in the past. The gland threads were cleaned and wrapped with Teflon tape on individual Unit No. 5 penetration 5B, which had shown only a slight seepage from under the gland nut.

Post-maintenance leakage rate testing was performed on April 11, 1980, for Unit Nos. 3 and 4 and on April 18, 1980 for Unit No. 5. Resulting leakage rates were acceptable at 0.029 SCFH for Unit No. 3, 0.019 SCFH for Unit No. 4, and 0.029 SCFH for Unit No. 5.

With the accomplishment of effected repairs and attainment of successful Type B testing, no further corrective action for this discovery is necessary. It is believed that random cracking of the fittings occurred as a result of mechanical tightening accomplished during post-construction leak rate tests. The inability of some electrical penetration seals to remain leak tight during test conditions has been attributed to hardening and embrittlement of the formerly used epoxy sealant compounds. In the event further degradation of electrical penetration gland seals is observed on subsequent leak tests which reveal cracked fittings, appropriate replacements will be made. Also, only the Velodur Metal sealant is planned to be used in the future, when use of a sealing compound is deemed necessary. In addition, we have initiated an engineering evaluation to determine an acceptable method of improving penetration integrity which may include supplementary test methods and corrective repairs. (Reference: RO-80-01, LAC-6873)

3. Penetration: Electrical Penetration Unit No. 6
 Acceptance Criteria: 0.375 SCFH*
 Test Date: 11/27/80
 Test Leakage Rate: 2.95 SCFH

*0.01 L_{po} where L_{po} is 37.5 SCFH.

As a result of conducting Type B leak tests on November 27, 1980, the indicated leakage flow rate from electrical penetration unit No. 6 was found to exceed the permissible value prescribed in LACBWR Technical Specifications, Section 5.2.1.2.(b).

The leakage was determined to be through Individual Penetration No. 29B on the Electrical Penetration Room side of the penetration chamber. No leakage was detected through the Containment Building boundary side of the penetration chamber.

The gland on Individual Penetration No. 29B was found to be cracked. It was cleaned and soldered and a retest was performed on December 1, 1980. The result was acceptable, with zero leakage. This repair method has demonstrated success in the past.

With the accomplishment of effected repair and attainment of successful Type B testing, no further corrective action for this discovery is necessary at this time. It is believed that random cracking of the fittings occurred as a result of mechanical tightening accomplished during post-construction leak rate tests. The inability of some electrical penetration seals to remain leak tight during test conditions has been attributed to hardening and embrittlement of the formerly used epoxy sealant compounds. In the event further degradation of electrical penetration gland seals is observed on subsequent leak tests which reveal cracked fittings, appropriate repairs will be made. In addition, we have initiated an engineering evaluation to determine an acceptable method of improving and monitoring penetration integrity. (Reference: RO-80-13, LAC-7278)

4. Penetration: Containment Ventilation Discharge Dampers
 Valve No.: 73-25-005
 Penetration No.: M-21
 Acceptance Criteria: 0.375 SCFH*
 Test Date: 4/15/80
 Test Leakage Rate: 40.79 SCFH

*0.01 L_{po} , where L_{po} is 37.5 SCFH.

As a result of conducting periodic Type C leak tests on Containment Building ventilation dampers on April 15, 1980, the leakage flow rate determined from the exhaust dampers exceeded the permissible leakage flow rates as defined in LACBWR Technical Specifications, Section 5.2.1.2.(b). Supplemental tests verified zero leakage across the containment boundary.

The method of leakage rate determination used for this test requires pressurizing the ventilation piping space between the two dampers with air to 52 psig. After isolating the air supply, pressure decay versus elapsed time is observed. As a means to assist in the determination of the point(s) of leakage, a blank flange was installed downstream of the downstream damper (73-25-006) and flow measurements made. No leakage could be detected past the lower dampers, showing that containment integrity had been maintained.

Further investigation revealed the source of leakage to be the seat ring of the upstream damper. An indentation, approximately 1/8" wide and 1/16" deep, located on the surface of the seat ring caused the leak. The indentation was formed by contact of the rim of the valve disc when the valve disc is in the open position. A similar indentation on the opposite side of the disc did not leak. The ventilation outlet damper (73-25-005) is an Allis-Chalmers Stream Seal No. 150-R, 10-inch butterfly valve.

Indentations in the seal ring have been observed before. The upstream and downstream exhaust valves are installed with the same damper orientation. The tests results show that when the test pressure is applied against the seal ring and damper in the direction which would be experienced during an MCA, the valve is leak tight.

The seat ring was replaced in the upstream damper and both dampers were repacked with the square type braided teflon packing the first used in May, 1979. Use of this new type of packing was discussed in the report on Reportable Occurrence No. 79-08 (LAC-6322, dated May 30, 1979). Experience to date with this packing has been good, as evidenced by no leakage occurring past the lower damper operator shaft during this test.

A post-repair leakage test performed April 18, 1980, resulted in an indicated leakage rate of 0.05439 SCFH, in conformance with the Technical Specification criteria. (Reference RO-80-02, LAC-6882)

5. Penetration: Heating Steam Condensate Return
 Valve No.: 73-25-021
 Penetration No.: M-26
 Acceptance Criteria: 0.375 SCFH*

*0.01 L_{po} , where L_{po} is 37.5 SCFH

- a. Test Date: 4/17/80
 Test Leakage Rate: 3.6 SCFH

As a result of conducting periodic Type C leak tests on the Containment Building Condensate Return Isolation Valve on April 17, 1980, the leakage flow rate determined from the condensate valve exceeded the permissible leakage flow rates as defined in the LACBWR Technical Specifications, Section 5.2.1.3.

The Containment Building Condensate Return Isolation Valve (73-25-021) is a Fischer, Model 667ET, 1-1/2-inch valve, with a carbon impregnated teflon seal ring. This was the first failure of this valve and can be attributed to aging due to normal wear. The valve seals were replaced and the post-repair leakage test performed April 25, 1980, resulted in zero leakage. No further corrective action is considered necessary. (Reference: RO-80-03, LAC-6882)

- b. Test Date: 11/27/80
Test Leakage Rate: 14.3 SCFH

As a result of conducting periodic Type C leak tests on the Containment Building Condensate Return Isolation Valve on November 27, 1980, the leakage flow rate determined from the condensate valve exceeded the permissible leakage flow rates.

The internals of this valve were totally replaced. Also, an evaluation of methods to improve this valve's performance is being conducted. The post-repair leakage test performed December 2, 1980, resulted in zero leakage. (Reference: RO-80-14, LAC-7268)

- 6. Penetration: Retention Tank Pump Discharge Valve
Valve No.: 54-25-006
Penetration No.: M-22
Acceptance Criteria: 0.375 SCFH*
Test Date: 11/29/80
Test Leakage: Between 0.56 and 4.0 SCFH

*0.01 L_{po} , where L_{po} is 37.5 SCFH.

As a result of conducting periodic Type C leak tests on the Retention Tank Pump Discharge Valve on November 29, 1980, the indicated leakage flow rate was found to exceed the permissible leakage flow rate as defined in LACBWR Technical Specifications, Section 5.2.1.3.(b)

The Retention Tank Pump Discharge Valve (54-25-006) is a 2-inch diaphragm operated, BS&B Valve, Model 70-14-2. This was the first failure of this valve. The valve was relapped, the gaskets were replaced and new packing was installed. The post-repair leakage test performed on December 4, 1980, resulted in zero leakage. No further corrective action is considered necessary. (Reference: RO-80-15, LAC-7268)

7. Penetration: Reactor Cavity Purge Air Line
Valve No.: 55-26-006
Penetration No.: M-28
Acceptance Criteria: 0.375 SCFH*
Test Date: 12/16/80
Test Leakage Rate: 1.97 SCFH
-

*0.01 L_{po} , where L_{po} is 37.5 SCFH.

As a result of conducting periodic Type C leak tests on December 16, 1980, the leak flow rate determined from the Reactor Cavity Purge Air Line exceeded the permissible leak flow rates as defined in LACBWR Technical Specifications, Section 5.2.1.3.(b).

The Reactor Cavity Purge Line check valve (55-26-006) was a Crane, Model 200, 1/2-inch check valve. This valve was replaced. The post-repair leakage test performed December 19, 1980, resulted in zero leakage. (Reference: RO-80-17, LAC-7295)

8. Penetration: Reactor Vent Header
Valve No.: 55-25-003
Penetration No.: M-29
Acceptance Criteria: 0.375 SCFH*
Test Date: 12/16/80
Test Leakage Rate: 3.8 SCFH
-

*0.01 L_{po} , where L_{po} is 37.5 SCFH.

As a result of conducting periodic Type C leak tests on December 16, 1980, the leak flow rate determined from the Reactor Vent Header Valve exceeded the permissible leak flow rate as defined in LACBWR Technical Specifications, Section 5.2.1.3.(b).

The Reactor Vent Header Valve (55-25-003) was a BS&B, Model 70-14-2R, 4-inch, 600 psig, single-port, diaphragm-operated valve with an integral seat. Rust and debris were removed from the area of the valve. The valve was located in a low point of the line, so a new valve was relocated in a vertical portion of the line. The post-repair leakage test performed 1/14/81 resulted in zero leakage. (Reference: RO-80-17, LAC-7295)

C. Instrument Error Analysis

The instrument errors associated with the various subject unsuccessful Type B and C leakage rate tests were determined from manufacturer's specifications, as available, or conservatively estimated.

1. Test Board (Two Identical Gauges)

Manufactured By: U. S. Gauge Company
 Model: Supergauge
 Range: 0-60 psig
 Accuracy: $\pm .5\%$ FS (0.3 psig)

During test conduct, two pressure gauges were read and the highest change in pressure reading, as an indication of pressure decay, was used for leakage rate calculation. As an indication of instrument error in volumetric flow rate units, the 0.3 psig error relates to approximately 0.08 SCFH error associated with the ventilation inlet or discharge dampers, assuming a one-hour time period.

2. Electrical Penetration Pressure Gauges

Manufactured By: Ashcroft Gauge Company
 Model: 100-3-1/2"
 Minor Division: 2 psi
 Range: 0-100 psi
 Accuracy: 0-50 psi: 2%
 50-200 psi: 3%

By procedure, the electrical penetrations are pressurized to 55 psig for Type B test conduct. Thus, the maximum instrument error is 0.03 (55 psig) = ± 1.65 psig. This pressure error would related to a volumetric flow rate error of 0.16 SCFH assuming leakage from penetration units 3, 4, 5, or 6 and a one-hour test duration. Calibration checks have indicated that the inaccuracy of the gauges is typically lower than 1 psig and the proceeding is thus conservative.

3. Air Flow Rotameter

Manufactured By: Brooks
 Model: 1110-01F1A1A
 Range: 0-.56 SCFH
 Accuracy: $\pm 1\%$ FS

The rotameter directly reads the leakage rate of the air through the isolation valve it is testing. Conservatively assuming the maximum flow rate the meter is capable of measuring, the maximum instrument error is $\pm .006$ SCFH.

4. High Range Air Flow Rotameter

Manufactured By: Brooks
 Model: 1110-06H1G1A
 Range: 4-48 SCFH
 Accuracy: $\pm 1\%$ FS

The high range rotameter is only used for failed leak rate tests to measure high leakage flow rates. Conservatively assuming the maximum flow rate the meter is capable of measuring, the maximum instrument error is $\pm .5$ SCFH.

5. Wet Test Gas Meter

Manufactured By: Precision Scientific Company
 Model: 63119
 Range: 5-60 ft³/hr
 Accuracy: $\pm .5\%$

Conservatively assuming the maximum instrument capacity in the error determination, the maximum instrument error is 0.3 ft³/hr. Actual error factors associated with each measurement are dependent on the total volume sensed by the instrument.

The summarized instrument error factors associated with the initially unsuccessful Type B and C test described in Section VI.B is provided below:

<u>Valve/Penetration</u>	<u>Test Instrument</u>	<u>Instrument Error</u>
Emergency Airlock	Test Board Gauges	0.389 SCFH
Ventilation Dampers (Exhaust)	Test Board Gauges	0.08 SCFH
Electrical Penetration Units 3, 4, 5, and 6	Individual Pressure Gauges	0.16 SCFH
Heating Steam Condensate Return	Wet Test Gas Meter and Rotameter	0.07 SCFH Max.
Retention Tank Pump Discharge Valve	Rotameter and High Range Rotameter	0.006/.5 SCFH
Reactor Cavity Purge Airline	Rotameter and High Range Rotameter	0.006/.5 SCFH
Reactor Vent Header	Rotameter and High Range Rotameter	0.006/.5 SCFH

DAIRYLAND POWER COOPERATIVE
LACROSSE BOILING WATER REACTOR (LACBWR)

PAGE 1

INTEGRATED CONTAINMENT LEAK RATE TEST *ABSOLUTE METHOD*

*****MASS PLOT ANALYSIS*****

REPORT PREPARED 17 DEC 1980

STARTING PRESSURE : 67.075 PSIA

DAY	TIME	PRESSURE (PSIA)	TEMP. (F)	DEWPOINT (F)	VPRESS. (PSIG)	AIR MASS (MEAS.)	AIR MASS (CALC.)
351	12:05	67.075	72.352	63.424	0.2890	89510 2187	89508 1641
351	12:15	67.074	72.316	63.345	0.2882	89510 2734	89507 6094
351	12:25	67.078	72.335	64.029	0.2952	89508 3828	89507 0547
351	12:35	67.079	72.345	63.852	0.2934	89502 4453	89506 5000
351	12:45	67.080	72.364	63.642	0.2912	89503 5547	89505 9453
351	12:55	67.082	72.355	63.743	0.2923	89501 2656	89505 3906
351	13:05	67.083	72.399	63.787	0.2927	89500 9297	89504 8359
351	13:15	67.084	72.409	63.311	0.2879	89507 6000	89504 2812
351	13:25	67.086	72.420	63.618	0.2910	89503 5391	89503 7266
351	13:35	67.088	72.437	63.497	0.2898	89505 0156	89503 1719
351	13:45	67.088	72.451	63.548	0.2903	89500 2031	89502 6172
351	13:55	67.090	72.471	63.454	0.2897	89502 8594	89502 0625
351	14:05	67.091	72.476	62.903	0.2838	89510 4297	89501 5078
351	14:15	67.093	72.494	63.501	0.2903	89501 2500	89500 9531
351	14:25	67.095	72.509	63.510	0.2899	89501 9609	89500 3984
351	14:35	67.096	72.523	63.606	0.2909	89499 6016	89499 8516
351	14:45	67.097	72.542	64.026	0.2952	89491 9141	89499 2969
351	14:55	67.098	72.547	63.814	0.2930	89495 4219	89498 7422
351	15:05	67.099	72.560	63.500	0.2898	89498 7969	89498 1875
351	15:15	67.100	72.572	63.032	0.2851	89504 4609	89497 6328
351	15:25	67.100	72.570	63.444	0.2892	89499 0359	89497 0781
351	15:35	67.101	72.582	63.759	0.2924	89494 2266	89496 5234
351	15:45	67.101	72.593	63.476	0.2896	89496 2031	89495 9687
351	15:55	67.102	72.598	63.518	0.2900	89496 0391	89495 4141
351	16:05	67.104	72.605	63.647	0.2913	89495 6719	89494 8594
351	16:15	67.104	72.622	63.542	0.2902	89494 3594	89494 3047
351	16:25	67.105	72.631	63.431	0.2891	89495 6719	89493 7500
351	16:35	67.106	72.638	63.067	0.2854	89500 6484	89493 1953
351	16:45	67.106	72.649	63.275	0.2875	89496 1172	89492 6406
351	16:55	67.107	72.660	63.398	0.2888	89493 8594	89492 0859
351	17:05	67.108	72.661	63.519	0.2900	89493 3125	89491 5312
351	17:15	67.110	72.669	64.294	0.2980	89483 8984	89490 9766
351	17:25	67.110	72.664	63.212	0.2869	89499 6719	89490 4219
351	17:35	67.111	72.684	63.838	0.2932	89488 2344	89489 8672
351	17:45	67.112	72.699	64.607	0.2955	89484 7734	89489 3125
351	17:55	67.112	72.710	63.798	0.2976	89493 5625	89488 7578
351	18:05	67.113	72.719	64.092	0.2999	89482 3281	89488 2031
351	18:15	67.114	72.717	63.150	0.2863	89496 8359	89487 6484
351	18:25	67.114	72.731	63.372	0.2885	89491 5312	89487 0937

DAIRYLAND POWER COOPERATIVE
LACROSSE BOILING WATER REACTOR (LACBWR)

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INTEGRATED CONTAINMENT LEAK RATE TEST *ABSOLUTE METHOD*

*****MASS PLOT ANALYSIS*****

REPORT PREPARED 17 DEC 1980

STARTING PRESSURE : 67.075 PSI

DAY	TIME	PRESSURE (PSIA)	TEMP (F)	DEWPOINT (F)	VPRESS. (PSIG)	AIR MASS (MEAS.)	AIR MASS (CALC.)
751	18 15	67.115	72.755	63.596	0.2908	89485.6953	89486.5391
751	18 45	67.114	72.745	63.618	0.2910	89488.7984	89485.9844
751	18 55	67.112	72.757	64.062	0.2956	89481.6172	89485.4297
751	19 5	67.118	72.774	64.221	0.2972	89477.8047	89484.8750
751	19 15	67.119	72.766	63.973	0.2946	89483.8984	89484.3203
751	19 25	67.120	72.787	64.265	0.2979	89478.1250	89483.7656
751	19 35	67.120	72.788	63.678	0.2912	89486.0937	89483.2187
751	19 45	67.120	72.795	63.994	0.2949	89480.1016	89482.6641
751	19 55	67.121	72.814	63.824	0.2931	89480.6328	89482.1094
751	20 5	67.121	72.818	63.794	0.2928	89480.3203	89481.5547
751	20 15	67.122	72.821	63.615	0.2910	89483.4844	89481.0000
751	20 25	67.125	72.833	64.178	0.2965	89475.0625	89480.4453
751	20 35	67.124	72.837	63.821	0.2931	89480.6953	89479.8906
751	20 45	67.125	72.840	63.626	0.2911	89484.1250	89479.3359
751	20 55	67.126	72.859	63.598	0.2908	89482.6094	89478.7812
751	21 5	67.126	72.867	63.677	0.2916	89480.2812	89478.2266
751	21 10	67.126	72.871	63.636	0.2912	89480.0859	89477.6719
751	21 25	67.128	72.886	63.633	0.2912	89480.7203	89477.1172
751	21 35	67.129	72.897	64.281	0.2978	89476.8828	89476.5625
751	21 45	67.130	72.898	63.289	0.2868	89486.7734	89476.0078
751	21 55	67.130	72.905	64.027	0.2952	89474.2578	89475.4531
751	22 5	67.131	72.920	64.433	0.2994	89467.4531	89474.8984
751	22 15	67.132	72.926	63.583	0.2906	89479.5859	89474.3437
751	22 25	67.134	72.940	64.176	0.2967	89471.5731	89473.7891
751	22 35	67.134	72.947	64.013	0.2951	89472.7109	89473.2344
751	22 45	67.134	72.953	64.478	0.3047	89458.6172	89472.6797
751	22 55	67.135	72.970	64.305	0.2981	89466.1562	89472.1250
751	23 5	67.136	72.967	64.398	0.2991	89466.6875	89471.5703
751	23 15	67.136	72.983	64.220	0.2972	89466.4141	89471.0156
751	23 25	67.136	72.988	63.908	0.2940	89469.8594	89470.4609
751	23 35	67.137	72.993	63.400	0.2868	89478.7266	89469.9062
751	23 45	67.138	73.001	64.245	0.2975	89466.9062	89469.3516
751	23 55	67.138	73.019	63.584	0.2907	89473.0000	89468.7969
752	0 5	67.138	73.033	64.260	0.2976	89462.7578	89468.2422
752	0 15	67.140	73.039	63.594	0.2908	89473.8750	89467.6875
752	0 25	67.141	73.054	63.716	0.2930	89472.6719	89467.1328
752	0 35	67.142	73.068	64.001	0.2991	89462.4609	89466.5859
752	0 45	67.143	73.073	64.780	0.2980	89464.1094	89466.0312
752	0 55	67.147	73.070	63.908	0.2940	89466.6797	89465.4766

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LACROSSE BOILING WATER REACTOR (LACBWR)

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INTEGRATED CONTAINMENT LEAK RATE TEST *ABSOLUTE METHOD*

*****MASS PLOT ANALYSIS*****

REPORT PREPARED 17 DEC 1980

STARTING PRESSURE : 67.075 PSIA

DAY	TIME	PRESSURE (PSIA)	TEMP (F)	DEWPOINT (F)	VPRESS. (PSIG)	AIR MASS (MEAS.)	AIR MASS (CALC.)
352	1 5	67.144	73.871	63.811	0.2970	89469.1797	89464.9219
352	1 15	67.145	73.889	64.719	0.3024	89454.8672	89464.3672
352	1 20	67.175	73.897	63.715	0.2920	89467.4453	89463.8125
352	1 35	67.146	73.891	64.879	0.2957	89454.7109	89463.2578
352	1 45	67.147	73.104	65.763	0.2925	89468.2422	89462.7031
352	1 55	67.148	73.108	64.872	0.2957	89464.6172	89467.1484
352	2 5	67.149	73.126	63.927	0.2942	89465.9375	89461.5937
352	2 15	67.149	73.129	63.993	0.2948	89463.3828	89461.0391
352	2 25	67.149	73.149	64.876	0.3041	89447.7266	89460.4844
352	2 35	67.150	73.155	64.397	0.2990	89454.7656	89459.9297
352	2 45	67.151	73.160	64.864	0.3040	89448.6250	89459.3750
352	2 55	67.152	73.169	64.950	0.2975	89458.3906	89458.8203
352	3 5	67.153	73.179	64.829	0.2952	89459.7969	89458.2656
352	3 15	67.154	73.196	64.343	0.2982	89454.3828	89457.7109
352	3 25	67.155	73.195	63.765	0.2925	89463.3203	89457.1562
352	3 35	67.155	73.211	64.466	0.2998	89450.9375	89456.6016
352	3 45	67.157	73.217	63.952	0.2944	89459.6641	89456.0469
352	3 55	67.157	73.225	64.877	0.2957	89456.7344	89455.4922
352	4 5	67.158	73.232	64.222	0.2972	89454.8047	89454.9375
352	4 15	67.159	73.236	64.631	0.3015	89449.6484	89454.3828
352	4 25	67.159	73.242	64.504	0.3002	89450.5156	89453.8281
352	4 35	67.160	73.255	64.126	0.2962	89454.8516	89453.2734
352	4 45	67.161	73.267	64.261	0.2976	89452.3594	89452.7187
352	4 55	67.162	73.274	64.603	0.3012	89447.6094	89452.1641
352	5 5	67.162	73.282	63.985	0.2948	89456.3437	89451.6094
352	5 15	67.162	73.301	64.193	0.2969	89450.1484	89451.0547
352	5 25	67.165	73.307	64.491	0.3000	89447.7031	89450.5078
352	5 35	67.165	73.308	64.156	0.2965	89452.0937	89449.9531
352	5 45	67.165	73.319	64.421	0.2993	89446.5859	89449.3984
352	5 55	67.167	73.325	64.233	0.2973	89449.1797	89448.8437
352	6 5	67.167	73.342	64.651	0.3017	89442.0859	89448.2891
352	6 15	67.170	73.354	64.526	0.3004	89445.7812	89447.7344
352	6 25	67.170	73.354	64.564	0.3008	89445.3203	89447.1797
352	6 35	67.171	73.360	65.877	0.2937	89455.2344	89446.6250
352	6 45	67.171	73.367	64.647	0.3017	89439.9297	89446.0703
352	6 55	67.172	73.385	64.497	0.3001	89443.6250	89445.5156
352	7 5	67.173	73.389	65.876	0.2936	89450.0625	89444.9609
352	7 15	67.173	73.397	64.760	0.2979	89445.7891	89444.4062
352	7 25	67.174	73.403	64.817	0.3012	89443.0169	89443.8516

DAIRYLAND POWER COOPERATIVE
LACROSSE BOILING WATER REACTOR (LACBWR)

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INTEGRATED CONTAINMENT LEAK RATE TEST *ABSOLUTE METHOD*

*****MASS PLOT ANALYSIS*****

REPORT PREPARED 17 DEC 1980

STARTING PRESSURE 67.075 PSI

DAY	TIME	PRESSURE (PSIA)	TEMP (F)	DEWPOINT (F)	V PRESS (PSIA)	AIR MASS (MEAS.)	AIR MASS (CALC.)
752	7:35	67.126	73.423	64.702	0.3021	89439.7422	89443.2969
752	7:45	67.127	73.430	63.777	0.2926	89437.6406	89442.7422
752	7:55	67.128	73.448	64.376	0.2988	89442.6875	89442.1875
752	8:05	67.129	73.448	64.456	0.2996	89442.8984	89441.6328
752	8:15	67.129	73.466	64.132	0.2963	89444.3906	89441.0781
752	8:25	67.181	73.469	64.341	0.2985	89441.6094	89440.5234
752	8:35	67.181	73.478	64.349	0.2987	89441.9453	89439.9687
752	8:45	67.181	73.487	64.432	0.2994	89442.0000	89439.4141
752	8:55	67.185	73.488	64.884	0.3042	89435.4141	89438.8594
752	9:05	67.184	73.513	64.771	0.3030	89434.0859	89438.3047
752	9:15	67.185	73.508	64.093	0.2959	89445.6953	89437.7500
752	9:25	67.186	73.529	64.500	0.3061	89436.2266	89437.1953
752	9:35	67.187	73.534	63.604	0.2913	89452.2969	89436.6406
752	9:45	67.187	73.548	64.447	0.2996	89436.6562	89436.0859
752	9:55	67.189	73.561	64.524	0.3004	89436.0156	89435.5312
752	10:05	67.191	73.587	64.681	0.3020	89434.1172	89434.9766
752	10:15	67.191	73.573	63.853	0.2934	89447.2656	89434.4219
752	10:25	67.197	73.581	65.052	0.3060	89431.8203	89433.8750
752	10:35	67.194	73.604	63.888	0.2938	89444.9609	89433.3203
752	10:45	67.193	73.613	64.615	0.3013	89435.3672	89432.7656
752	10:55	67.197	73.627	64.748	0.3027	89433.7422	89432.2109
752	11:05	67.198	73.645	65.776	0.3137	89417.3281	89431.6562
752	11:15	67.199	73.644	65.039	0.3058	89429.3047	89431.1016
752	11:25	67.200	73.662	65.199	0.3075	89425.7061	89430.5469
752	11:35	67.207	73.670	64.738	0.3036	89433.1406	89429.9922
752	11:45	67.207	73.679	65.300	0.3089	89424.5078	89429.4375
752	11:55	67.207	73.697	65.103	0.3065	89420.7656	89428.8828
752	12:05	67.204	73.692	65.697	0.3129	89418.3594	89428.3281

CALCULATED LEAK RATE PERCENT/DAY= 0.00020

UPPER CONFIDENCE LEVEL AT 95 PERCENT= 0.00192

THE ZERO TIME INTERCEPT IS 49508.0 LBS AND THE SLOPE IS 3.27 LBM/HR

41.00000000 0.00000000
41.00000000 0.00000000

DAIRYLAND POWER COOPERATIVE
LACROSSE BOILING WATER REACTOR (LACBWR)

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INTEGRATED CONTAINMENT LEAK RATE TEST *INPUT LIST*

INPUT DATA AND EDIT MESSAGES

REPORT PREPARED 17 DEC 1980

351:12:05

68586 P

4 000	000.00MV	4 001	072.35 F	4 002	072.62 F	4 003	072.33 F
4 004	072.08 F	4 005	072.29 F	4 006	072.41 F	4 007	072.24 F
4 008	072.73 F	4 009	072.25 F	4 010	071.91 F	4 011	072.04 F
4 012	072.17 F	4 013	062.15 F	4 014	061.00 F	4 015	062.95 F
4 016	066.47 F	4 017	0 1406 F	4 018	021.57 F		

351:12:15

68587 P

4 000	000.00MV	4 001	072.36 F	4 002	072.62 F	4 003	072.34 F
4 004	072.14 F	4 005	072.29 F	4 006	072.43 F	4 007	072.24 F
4 008	072.72 F	4 009	072.31 F	4 010	071.93 F	4 011	072.04 F
4 012	072.17 F	4 013	062.01 F	4 014	060.25 F	4 015	063.57 F
4 016	066.41 F	4 017	0 1432 F	4 018	021.48 F		

351:12:25

68589 P

4 000	000.00MV	4 001	072.36 F	4 002	072.65 F	4 003	072.34 F
4 004	072.14 F	4 005	072.32 F	4 006	072.52 F	4 007	072.26 F
4 008	072.75 F	4 009	072.33 F	4 010	071.93 F	4 011	072.03 F
4 012	072.18 F	4 013	064.62 F	4 014	061.02 F	4 015	063.78 F
4 016	066.34 F	4 017	0 1384 F	4 018	021.59 F		

351:12:35

68590 P

4 000	000.00MV	4 001	072.39 F	4 002	072.66 F	4 003	072.35 F
4 004	072.14 F	4 005	072.34 F	4 006	072.51 F	4 007	072.28 F
4 008	072.77 F	4 009	072.36 F	4 010	071.92 F	4 011	072.03 F
4 012	072.18 F	4 013	063.19 F	4 014	061.12 F	4 015	064.07 F
4 016	066.24 F	4 017	0 1345 F	4 018	021.49 F		

351:12:45

68591 P

4 000	000.00MV	4 001	072.41 F	4 002	072.72 F	4 003	072.39 F
4 004	072.16 F	4 005	072.34 F	4 006	072.43 F	4 007	072.29 F
4 008	072.78 F	4 009	072.38 F	4 010	071.98 F	4 011	072.08 F
4 012	072.20 F	4 013	061.43 F	4 014	061.02 F	4 015	063.20 F
4 016	067.35 F	4 017	0 1386 F	4 018	021.48 F		

351:12:55

68593 P

4 000	000.00MV	4 001	072.39 F	4 002	072.69 F	4 003	072.41 F
4 004	072.21 F	4 005	072.38 F	4 006	072.54 F	4 007	072.30 F
4 008	072.80 F	4 009	072.36 F	4 010	072.00 F	4 011	072.11 F
4 012	072.22 F	4 013	062.69 F	4 014	060.85 F	4 015	063.70 F
4 016	066.59 F	4 017	0 1349 F	4 018	021.65 F		

351:13:05

68595 P

4 000	000.00MV	4 001	072.45 F	4 002	072.75 F	4 003	072.42 F
4 004	072.21 F	4 005	072.37 F	4 006	072.56 F	4 007	072.31 F
4 008	072.83 F	4 009	072.38 F	4 010	071.98 F	4 011	072.08 F
4 012	072.23 F	4 013	062.04 F	4 014	060.61 F	4 015	063.61 F
4 016	066.46 F	4 017	0 1449 F	4 018	021.61 F		

351:13:15

68596 P

4 000	000.00MV	4 001	072.47 F	4 002	072.76 F	4 003	072.45 F
4 004	072.24 F	4 005	072.41 F	4 006	072.57 F	4 007	072.33 F
4 008	072.84 F	4 009	072.39 F	4 010	072.00 F	4 011	072.06 F
4 012	072.24 F	4 013	062.54 F	4 014	061.01 F	4 015	063.37 F
4 016	067.74 F	4 017	0 1475 F	4 018	021.61 F		

351:13:25

68598 P

4 012	072.24 F	4 013	062.54 F	4 014	061.04 F	4 015	063.33 F
4 016	065.54 F	4 017	0 1373 F	4 018	021.41 F		
351:13:25		68598 F					
4 000	000.00MV	4 001	072.46 F	4 002	072.75 F	4 003	072.45 F
4 004	072.27 F	4 005	072.39 F	4 006	072.51 F	4 007	072.34 F
4 008	072.85 F	4 009	072.41 F	4 010	072.04 F	4 011	072.11 F
4 012	072.26 F	4 013	062.45 F	4 014	061.61 F	4 015	063.22 F
4 016	066.19 F	4 017	0 1387 F	4 018	021.66 F		
351:13:35		68600 F					
4 000	000.00MV	4 001	072.48 F	4 002	072.76 F	4 003	072.48 F
4 004	072.28 F	4 005	072.45 F	4 006	072.56 F	4 007	072.37 F
4 008	072.85 F	4 009	072.36 F	4 010	072.03 F	4 011	072.14 F
4 012	072.27 F	4 013	063.05 F	4 014	061.62 F	4 015	063.10 F
4 016	065.56 F	4 017	0 1309 F	4 018	021.41 F		
351:13:45		68600 F					
4 000	000.00MV	4 001	072.49 F	4 002	072.79 F	4 003	072.49 F
4 004	072.29 F	4 005	072.46 F	4 006	072.60 F	4 007	072.37 F
4 008	072.90 F	4 009	072.40 F	4 010	072.08 F	4 011	072.17 F
4 012	072.28 F	4 013	063.64 F	4 014	060.99 F	4 015	062.84 F
4 016	066.14 F	4 017	0 1261 F	4 018	021.53 F		
351:13:55		68602 F					
4 000	000.00MV	4 001	072.51 F	4 002	072.77 F	4 003	072.49 F
4 004	072.32 F	4 005	072.48 F	4 006	072.60 F	4 007	072.39 F
4 008	072.90 F	4 009	072.40 F	4 010	072.05 F	4 011	072.15 F
4 012	072.20 F	4 013	062.07 F	4 014	061.73 F	4 015	063.05 F
4 016	065.65 F	4 017	0 1261 F	4 018	021.58 F		
351:14:05		68603 F					
4 000	000.00MV	4 001	072.51 F	4 002	072.81 F	4 003	072.52 F
4 004	072.31 F	4 005	072.47 F	4 006	072.62 F	4 007	072.38 F
4 008	072.91 F	4 009	072.46 F	4 010	072.05 F	4 011	072.14 F
4 012	072.32 F	4 013	060.76 F	4 014	059.97 F	4 015	063.07 F
4 016	066.61 F	4 017	0 1368 F	4 018	021.41 F		
351:14:10		68603 F					
4 000	000.00MV	4 001	072.54 F	4 002	072.80 F	4 003	072.52 F
4 004	072.37 F	4 005	072.47 F	4 006	072.67 F	4 007	072.41 F
4 008	072.90 F	4 009	072.46 F	4 010	072.10 F	4 011	072.15 F
4 012	072.33 F	4 013	062.89 F	4 014	061.66 F	4 015	063.06 F
4 016	065.82 F	4 017	0 1266 F	4 018	021.44 F		
351:14:25		68607 F					
4 000	000.00MV	4 001	072.57 F	4 002	072.82 F	4 003	072.54 F
4 004	072.34 F	4 005	072.52 F	4 006	072.62 F	4 007	072.44 F
4 008	072.93 F	4 009	072.51 F	4 010	072.08 F	4 011	072.19 F
4 012	072.34 F	4 013	063.42 F	4 014	060.69 F	4 015	063.23 F
4 016	066.07 F	4 017	0 1391 F	4 018	021.48 F		
351:14:35		68608 F					
4 000	000.00MV	4 001	072.56 F	4 002	072.87 F	4 003	072.55 F
4 004	072.37 F	4 005	072.51 F	4 006	072.63 F	4 007	072.44 F
4 008	072.95 F	4 009	072.48 F	4 010	072.13 F	4 011	072.23 F
4 012	072.35 F	4 013	062.24 F	4 014	061.26 F	4 015	063.02 F
4 016	066.73 F	4 017	0 1351 F	4 018	021.55 F		
351:14:45		68609 F					
4 000	000.00MV	4 001	072.58 F	4 002	072.88 F	4 003	072.55 F
4 004	072.40 F	4 005	072.53 F	4 006	072.70 F	4 007	072.46 F
4 008	072.96 F	4 009	072.51 F	4 010	072.13 F	4 011	072.23 F
4 012	072.37 F	4 013	065.70 F	4 014	061.09 F	4 015	064.20 F
4 016	065.28 F	4 017	0 1442 F	4 018	021.63 F		
351:14:55		68610 F					
4 000	000.00MV	4 001	072.50 F	4 002	072.89 F	4 003	072.57 F
4 004	072.39 F	4 005	072.54 F	4 006	072.72 F	4 007	072.45 F
4 008	072.97 F	4 009	072.49 F	4 010	072.13 F	4 011	072.23 F
4 012	072.39 F	4 013	063.50 F	4 014	060.89 F	4 015	064.17 F
4 016	066.61 F	4 017	0 1337 F	4 018	021.81 F		
351:15:00		68611 F					

4 004	072.39 F	4 005	072.54 F	4 006	072.72 F	4 007	072.45 F
4 008	072.97 F	4 009	072.49 F	4 010	072.13 F	4 011	072.23 F
4 012	072.39 F	4 013	063.58 F	4 014	060.89 F	4 015	064.17 F
4 016	066.01 F	4 017	0 1337 F	4 018	021.61 F		
351.15.05 68611 P							
4 000	000.00MV	4 001	072.63 F	4 002	072.89 F	4 003	072.58 F
4 004	072.45 F	4 005	072.54 F	4 006	072.68 F	4 007	072.47 F
4 008	072.98 F	4 009	072.51 F	4 010	072.15 F	4 011	072.24 F
4 012	072.39 F	4 013	062.02 F	4 014	060.17 F	4 015	063.80 F
4 016	066.78 F	4 017	0 1419 F	4 018	021.55 F		
351.15.15 68612 P							
4 000	-000.01MV	4 001	072.62 F	4 002	072.89 F	4 003	072.59 F
4 004	072.40 F	4 005	072.57 F	4 006	072.71 F	4 007	072.49 F
4 008	072.98 F	4 009	072.58 F	4 010	072.17 F	4 011	072.26 F
4 012	072.40 F	4 013	061.24 F	4 014	060.32 F	4 015	063.51 F
4 016	065.82 F	4 017	0 1375 F	4 018	021.57 F		
351.15.25 68612 P							
4 000	000.00MV	4 001	072.60 F	4 002	072.88 F	4 003	072.58 F
4 004	072.40 F	4 005	072.58 F	4 006	072.76 F	4 007	072.49 F
4 008	073.00 F	4 009	072.52 F	4 010	072.17 F	4 011	072.25 F
4 012	072.41 F	4 013	061.44 F	4 014	061.17 F	4 015	064.15 F
4 016	065.79 F	4 017	0 1271 F	4 018	021.56 F		
351.15.35 68613 P							
4 000	000.00MV	4 001	072.60 F	4 002	072.91 F	4 003	072.61 F
4 004	072.45 F	4 005	072.57 F	4 006	072.68 F	4 007	072.50 F
4 008	073.01 F	4 009	072.58 F	4 010	072.17 F	4 011	072.28 F
4 012	072.42 F	4 013	063.63 F	4 014	061.55 F	4 015	063.82 F
4 016	065.54 F	4 017	0 1358 F	4 018	021.67 F		
351.15.45 68613 P							
4 000	000.00MV	4 001	072.65 F	4 002	072.91 F	4 003	072.61 F
4 004	072.44 F	4 005	072.53 F	4 006	072.78 F	4 007	072.52 F
4 008	073.01 F	4 009	072.59 F	4 010	072.17 F	4 011	072.26 F
4 012	072.44 F	4 013	062.45 F	4 014	060.97 F	4 015	062.67 F
4 016	066.73 F	4 017	0 1429 F	4 018	021.59 F		
351.15.55 68614 P							
4 000	-000.01MV	4 001	072.64 F	4 002	072.93 F	4 003	072.61 F
4 004	072.48 F	4 005	072.59 F	4 006	072.69 F	4 007	072.52 F
4 008	073.02 F	4 009	072.56 F	4 010	072.21 F	4 011	072.29 F
4 012	072.44 F	4 013	061.70 F	4 014	061.72 F	4 015	063.03 F
4 016	066.35 F	4 017	0 1351 F	4 018	021.58 F		
351.16.05 68615 P							
4 000	000.00MV	4 001	072.64 F	4 002	072.92 F	4 003	072.62 F
4 004	072.47 F	4 005	072.60 F	4 006	072.69 F	4 007	072.54 F
4 008	073.03 F	4 009	072.59 F	4 010	072.23 F	4 011	072.29 F
4 012	072.45 F	4 013	062.77 F	4 014	060.80 F	4 015	064.81 F
4 016	066.14 F	4 017	0 1396 F	4 018	021.63 F		
351.16.15 68616 P							
4 000	000.00MV	4 001	072.67 F	4 002	072.96 F	4 003	072.64 F
4 004	072.48 F	4 005	072.61 F	4 006	072.66 F	4 007	072.56 F
4 008	073.04 F	4 009	072.62 F	4 010	072.24 F	4 011	072.32 F
4 012	072.47 F	4 013	061.63 F	4 014	061.78 F	4 015	064.22 F
4 016	065.85 F	4 017	0 1346 F	4 018	021.66 F		
351.16.25 68617 P							
4 000	000.00MV	4 001	072.69 F	4 002	072.99 F	4 003	072.63 F
4 004	072.44 F	4 005	072.57 F	4 006	072.72 F	4 007	072.56 F
4 008	073.08 F	4 009	072.68 F	4 010	072.73 F	4 011	072.30 F
4 012	072.49 F	4 013	064.66 F	4 014	060.81 F	4 015	062.32 F
4 016	065.75 F	4 017	0 1385 F	4 018	021.66 F		
351.16.35 68618 P							
4 000	000.00MV	4 001	072.70 F	4 002	072.97 F	4 003	072.65 F
4 004	072.43 F	4 005	072.61 F	4 006	072.78 F	4 007	072.57 F
4 008	073.06 F	4 009	072.59 F	4 010	072.73 F	4 011	072.72 F
4 012	072.49 F	4 013	062.61 F	4 014	062.89 F	4 015	062.94 F

4 016 066.0 F 4 017 0.1337 F 4 018 021.61 F

351:15:05 68611 F

4 000 000.00MV 4 001 072.63 F 4 002 072.89 F 4 003 072.58 F

4 004 072.45 F 4 005 072.54 F 4 006 072.68 F 4 007 072.47 F

4 008 072.98 F 4 009 072.51 F 4 010 072.15 F 4 011 072.24 F

4 012 072.39 F 4 013 062.02 F 4 014 060.17 F 4 015 063.60 F

4 016 066.78 F 4 017 0.1419 F 4 018 021.55 F

351:15:15 68612 F

4 000 -000.01MV 4 001 072.62 F 4 002 072.89 F 4 003 072.59 F

4 004 072.40 F 4 005 072.57 F 4 006 072.71 F 4 007 072.49 F

4 008 072.98 F 4 009 072.58 F 4 010 072.17 F 4 011 072.26 F

4 012 072.40 F 4 013 061.24 F 4 014 060.32 F 4 015 063.51 F

4 016 065.82 F 4 017 0.1375 F 4 018 021.57 F

351:15:25 68612 F

4 000 000.00MV 4 001 072.60 F 4 002 072.88 F 4 003 072.58 F

4 004 072.40 F 4 005 072.58 F 4 006 072.76 F 4 007 072.49 F

4 008 073.00 F 4 009 072.52 F 4 010 072.17 F 4 011 072.25 F

4 012 072.41 F 4 013 061.44 F 4 014 061.17 F 4 015 064.15 F

4 016 063.79 F 4 017 0.1271 F 4 018 021.56 F

351:15:35 68613 F

4 000 000.00MV 4 001 072.60 F 4 002 072.91 F 4 003 072.61 F

4 004 072.45 F 4 005 072.57 F 4 006 072.68 F 4 007 072.50 F

4 008 073.01 F 4 009 072.58 F 4 010 072.17 F 4 011 072.28 F

4 012 072.42 F 4 013 063.65 F 4 014 061.55 F 4 015 063.82 F

4 016 065.54 F 4 017 0.1358 F 4 018 021.67 F

351:15:45 68613 F

4 000 000.00MV 4 001 072.61 F 4 002 072.91 F 4 003 072.61 F

4 004 072.44 F 4 005 072.55 F 4 006 072.78 F 4 007 072.52 F

4 008 073.01 F 4 009 072.59 F 4 010 072.17 F 4 011 072.26 F

4 012 072.44 F 4 013 062.45 F 4 014 060.97 F 4 015 062.67 F

4 016 066.73 F 4 017 0.1429 F 4 018 021.59 F

351:15:55 68614 F

4 000 -000.01MV 4 001 072.64 F 4 002 072.93 F 4 003 072.61 F

4 004 072.48 F 4 005 072.59 F 4 006 072.69 F 4 007 072.52 F

4 008 073.02 F 4 009 072.56 F 4 010 072.21 F 4 011 072.29 F

4 012 072.44 F 4 013 061.70 F 4 014 061.72 F 4 015 063.03 F

4 016 066.35 F 4 017 0.1351 F 4 018 021.58 F

351:16:05 68616 F

4 000 000.00MV 4 001 072.64 F 4 002 072.92 F 4 003 072.62 F

4 004 072.47 F 4 005 072.60 F 4 006 072.69 F 4 007 072.54 F

4 008 073.03 F 4 009 072.59 F 4 010 072.23 F 4 011 072.29 F

4 012 072.45 F 4 013 062.72 F 4 014 060.00 F 4 015 064.81 F

4 016 066.14 F 4 017 0.1396 F 4 018 021.63 F

351:16:15 68616 F

4 000 000.00MV 4 001 072.67 F 4 002 072.96 F 4 003 072.64 F

4 004 072.48 F 4 005 072.61 F 4 006 072.66 F 4 007 072.56 F

4 008 073.04 F 4 009 072.62 F 4 010 072.24 F 4 011 072.32 F

4 012 072.47 F 4 013 061.63 F 4 014 061.28 F 4 015 064.22 F

4 016 065.85 F 4 017 0.1346 F 4 018 021.66 F

351:16:25 68617 F

4 000 000.00MV 4 001 072.69 F 4 002 072.99 F 4 003 072.63 F

4 004 072.44 F 4 005 072.57 F 4 006 072.72 F 4 007 072.56 F

4 008 073.08 F 4 009 072.68 F 4 010 072.23 F 4 011 072.30 F

4 012 072.49 F 4 013 064.66 F 4 014 060.81 F 4 015 062.72 F

4 016 065.78 F 4 017 0.1285 F 4 018 021.66 F

351:16:35 68618 F

4 000 000.00MV 4 001 072.70 F 4 002 072.97 F 4 003 072.65 F

4 004 072.48 F 4 005 072.61 F 4 006 072.78 F 4 007 072.57 F

4 008 073.06 F 4 009 072.59 F 4 010 072.23 F 4 011 072.33 F

4 012 072.49 F 4 013 062.64 F 4 014 059.89 F 4 015 062.96 F

4 016 065.14 F 4 017 0.1355 F 4 018 021.55 F

351:16:45 68619 F

4 000 000.00MV 4 001 072.69 F 4 002 072.98 F 4 003 072.65 F

4 004 072.49 F 4 005 072.61 F 4 006 072.74 F 4 007 072.57 F

46	4 012	072.49 F	4 013	062.64 F	4 014	059.89 F	4 015	063.96 F
47	4 016	065.14 F	4 017	0 1288 F	4 018	021.55 F		
48	351:16:45		68618 P					
49	4 000	000.00MV	4 001	072.69 F	4 002	072.98 F	4 003	072.65 F
50	4 004	072.49 F	4 005	072.64 F	4 006	072.74 F	4 007	072.58 F
51	4 008	073.08 F	4 009	072.64 F	4 010	072.25 F	4 011	072.35 F
52	4 012	072.50 F	4 013	062.27 F	4 014	061.21 F	4 015	062.86 F
53	4 016	065.82 F	4 017	0 1330 F	4 018	021.62 F		
54	351:16:55		68619 P					
55	4 000	000.00MV	4 001	072.68 F	4 002	073.00 F	4 003	072.68 F
56	4 004	072.44 F	4 005	072.66 F	4 006	072.79 F	4 007	072.59 F
57	4 008	073.09 F	4 009	072.68 F	4 010	072.27 F	4 011	072.35 F
	4 012	072.50 F	4 013	062.18 F	4 014	060.86 F	4 015	063.15 F
	4 016	066.32 F	4 017	0 1331 F	4 018	021.54 F		
	351:17:05		68620 P					
	4 000	000.00MV	4 001	072.68 F	4 002	072.97 F	4 003	072.68 F
	4 004	072.42 F	4 005	072.65 F	4 006	072.85 F	4 007	072.61 F
	4 008	073.10 F	4 009	072.60 F	4 010	072.28 F	4 011	072.38 F
	4 012	072.52 F	4 013	061.83 F	4 014	060.84 F	4 015	064.14 F
	4 016	066.10 F	4 017	0 1305 F	4 018	021.70 F		
	351:17:15		68622 P					
	4 000	000.00MV	4 001	072.70 F	4 002	073.00 F	4 003	072.68 F
	4 004	072.45 F	4 005	072.62 F	4 006	072.83 F	4 007	072.62 F
	4 008	073.11 F	4 009	072.69 F	4 010	072.27 F	4 011	072.34 F
	4 012	072.53 F	4 013	064.41 F	4 014	062.14 F	4 015	063.97 F
	4 016	066.21 F	4 017	0 1378 F	4 018	021.61 F		
	351:17:25		68623 P					
	4 000	000.00MV	4 001	072.73 F	4 002	073.01 F	4 003	072.67 F
	4 004	072.39 F	4 005	072.65 F	4 006	072.75 F	4 007	072.62 F
	4 008	073.10 F	4 009	072.67 F	4 010	072.28 F	4 011	072.38 F
	4 012	072.53 F	4 013	063.56 F	4 014	060.47 F	4 015	062.49 F
	4 016	065.83 F	4 017	0 1429 F	4 018	021.63 F		
	351:17:35		68623 P					
	4 000	000.00MV	4 001	072.72 F	4 002	073.04 F	4 003	072.69 F
	4 004	072.47 F	4 005	072.66 F	4 006	072.82 F	4 007	072.63 F
	4 008	073.12 F	4 009	072.70 F	4 010	072.31 F	4 011	072.37 F
	4 012	072.55 F	4 013	063.71 F	4 014	060.78 F	4 015	064.42 F
	4 016	065.90 F	4 017	0 1346 F	4 018	021.50 F		
	351:17:45		68624 P					
	4 000	000.00MV	4 001	072.75 F	4 002	073.05 F	4 003	072.69 F
	4 004	072.45 F	4 005	072.67 F	4 006	072.80 F	4 007	072.65 F
	4 008	073.13 F	4 009	072.69 F	4 010	072.31 F	4 011	072.46 F
	4 012	072.56 F	4 013	065.26 F	4 014	061.07 F	4 015	063.89 F
	4 016	065.94 F	4 017	0 1370 F	4 018	021.79 F		
	351:17:55		68624 P					
	4 000	000.00MV	4 001	072.77 F	4 002	073.05 F	4 003	072.71 F
	4 004	072.44 F	4 005	072.68 F	4 006	072.87 F	4 007	072.65 F
	4 008	073.14 F	4 009	072.73 F	4 010	072.33 F	4 011	072.40 F
	4 012	072.56 F	4 013	063.37 F	4 014	060.66 F	4 015	063.20 F
	4 016	065.39 F	4 017	0 1329 F	4 018	021.75 F		
	351:18:05		68625 P					
	4 000	000.00MV	4 001	072.77 F	4 002	073.04 F	4 003	072.72 F
	4 004	072.45 F	4 005	072.71 F	4 006	072.89 F	4 007	072.66 F
	4 008	073.15 F	4 009	072.72 F	4 010	072.34 F	4 011	072.41 F
	4 012	072.58 F	4 013	063.90 F	4 014	061.81 F	4 015	063.97 F
	4 016	066.12 F	4 017	0 1333 F	4 018	021.59 F		
	351:18:15		68626 P					
	4 000	000.00MV	4 001	072.74 F	4 002	073.06 F	4 003	072.73 F
	4 004	072.44 F	4 005	072.72 F	4 006	072.86 F	4 007	072.66 F
	4 008	073.14 F	4 009	072.71 F	4 010	072.35 F	4 011	072.42 F
	4 012	072.59 F	4 013	061.99 F	4 014	060.64 F	4 015	063.33 F
	4 016	065.87 F	4 017	0 1352 F	4 018	021.82 F		
	351:18:25		68626 P					

4 000	073. 04 F	4 009	072. 71 F	4 010	072. 33 F	4 011	072. 42 F
4 012	072. 59 F	4 013	061. 99 F	4 014	060. 64 F	4 015	063. 32 F
4 016	065. 67 F	4 017	0 1252 F	4 018	021. 82 F		
351:18:25		68626 F					
4 000	000. 00MV	4 001	072. 75 F	4 002	073. 05 F	4 003	072. 73 F
4 004	072. 49 F	4 005	072. 70 F	4 006	072. 94 F	4 007	072. 67 F
4 008	073. 16 F	4 009	072. 75 F	4 010	072. 33 F	4 011	072. 42 F
4 012	072. 59 F	4 013	061. 20 F	4 014	061. 46 F	4 015	063. 46 F
4 016	066. 02 F	4 017	0 1366 F	4 018	021. 58 F		
351:18:35		68627 F					
4 000	000. 00MV	4 001	072. 80 F	4 002	073. 07 F	4 003	072. 75 F
4 004	072. 50 F	4 005	072. 72 F	4 006	072. 93 F	4 007	072. 68 F
4 008	073. 19 F	4 009	072. 78 F	4 010	072. 38 F	4 011	072. 47 F
4 012	072. 61 F	4 013	063. 10 F	4 014	060. 90 F	4 015	064. 13 F
4 016	065. 60 F	4 017	0 1298 F	4 018	021. 71 F		
351:18:45		68628 F					
4 000	000. 00MV	4 001	072. 81 F	4 002	073. 09 F	4 003	072. 75 F
4 004	072. 46 F	4 005	072. 75 F	4 006	072. 80 F	4 007	072. 71 F
4 008	073. 19 F	4 009	072. 74 F	4 010	072. 36 F	4 011	072. 48 F
4 012	072. 62 F	4 013	062. 42 F	4 014	061. 22 F	4 015	063. 53 F
4 016	066. 28 F	4 017	0 1324 F	4 018	021. 55 F		
351:18:55		68629 F					
4 000	000. 00MV	4 001	072. 81 F	4 002	073. 10 F	4 003	072. 75 F
4 004	072. 47 F	4 005	072. 73 F	4 006	072. 90 F	4 007	072. 71 F
4 008	073. 20 F	4 009	072. 75 F	4 010	072. 36 F	4 011	072. 49 F
4 012	072. 63 F	4 013	064. 96 F	4 014	061. 26 F	4 015	063. 63 F
4 016	066. 18 F	4 017	0 1425 F	4 018	021. 62 F		
351:19:05		68630 F					
4 000	000. 00MV	4 001	072. 83 F	4 002	073. 10 F	4 003	072. 76 F
4 004	072. 47 F	4 005	072. 75 F	4 006	072. 96 F	4 007	072. 73 F
4 008	073. 20 F	4 009	072. 78 F	4 010	072. 39 F	4 011	072. 49 F
4 012	072. 67 F	4 013	066. 13 F	4 014	060. 84 F	4 015	063. 55 F
4 016	066. 45 F	4 017	0 1407 F	4 018	021. 77 F		
351:19:15		68631 F					
4 000	000. 00MV	4 001	072. 83 F	4 002	073. 09 F	4 003	072. 78 F
4 004	072. 42 F	4 005	072. 77 F	4 006	072. 86 F	4 007	072. 73 F
4 008	073. 21 F	4 009	072. 79 F	4 010	072. 39 F	4 011	072. 49 F
4 012	072. 66 F	4 013	064. 97 F	4 014	060. 45 F	4 015	063. 95 F
4 016	066. 72 F	4 017	0 1381 F	4 018	021. 66 F		
351:19:25		68632 F					
4 000	000. 00MV	4 001	072. 83 F	4 002	073. 12 F	4 003	072. 78 F
4 004	072. 47 F	4 005	072. 76 F	4 006	072. 91 F	4 007	072. 75 F
4 008	073. 24 F	4 009	072. 82 F	4 010	072. 41 F	4 011	072. 46 F
4 012	072. 66 F	4 013	064. 79 F	4 014	060. 74 F	4 015	065. 58 F
4 016	066. 05 F	4 017	0 1412 F	4 018	021. 80 F		
351:19:35		68633 F					
4 000	000. 00MV	4 001	072. 82 F	4 002	073. 12 F	4 003	072. 76 F
4 004	072. 49 F	4 005	072. 76 F	4 006	072. 96 F	4 007	072. 76 F
4 008	073. 25 F	4 009	072. 78 F	4 010	072. 41 F	4 011	072. 49 F
4 012	072. 69 F	4 013	064. 57 F	4 014	060. 30 F	4 015	063. 46 F
4 016	066. 56 F	4 017	0 1352 F	4 018	021. 73 F		
351:19:45		68634 F					
4 000	000. 00MV	4 001	072. 81 F	4 002	073. 10 F	4 003	072. 78 F
4 004	072. 42 F	4 005	072. 77 F	4 006	072. 96 F	4 007	072. 75 F
4 008	073. 25 F	4 009	072. 83 F	4 010	072. 44 F	4 011	072. 51 F
4 012	072. 70 F	4 013	062. 61 F	4 014	061. 29 F	4 015	064. 54 F
4 016	066. 41 F	4 017	0 1322 F	4 018	021. 67 F		
351:19:55		68635 F					
4 000	000. 00MV	4 001	072. 82 F	4 002	073. 12 F	4 003	072. 80 F
4 004	072. 48 F	4 005	072. 77 F	4 006	073. 05 F	4 007	072. 76 F
4 008	073. 27 F	4 009	072. 83 F	4 010	072. 46 F	4 011	072. 54 F
4 012	072. 71 F	4 013	062. 69 F	4 014	061. 42 F	4 015	063. 12 F
4 016	066. 51 F	4 017	0 1314 F	4 018	021. 83 F		
351:20:05		68636 F					

4 016 066 97 F 4 017 0 1419 F 4 018 021 87 F

351:20:05 68633 P

4 000 000 00MV 4 001 072 84 F 4 002 073 14 F 4 003 072 81 F

4 004 072 52 F 4 005 072 80 F 4 006 072 93 F 4 007 072 79 F

4 008 073 29 F 4 009 072 84 F 4 010 072 44 F 4 011 072 52 F

4 012 072 72 F 4 013 064 17 F 4 014 060 57 F 4 015 063 94 F

4 016 066 08 F 4 017 0 1374 F 4 018 021 72 F

351:20:15 68634 P

4 000 000 01MV 4 001 072 86 F 4 002 073 14 F 4 003 072 82 F

4 004 072 47 F 4 005 072 79 F 4 006 072 95 F 4 007 072 80 F

4 008 073 26 F 4 009 072 88 F 4 010 072 46 F 4 011 072 54 F

4 012 072 72 F 4 013 062 24 F 4 014 061 46 F 4 015 063 25 F

4 016 066 40 F 4 017 0 1347 F 4 018 021 64 F

351:20:25 68635 P

4 000 000 01MV 4 001 072 86 F 4 002 073 16 F 4 003 072 83 F

4 004 072 55 F 4 005 072 80 F 4 006 072 95 F 4 007 072 80 F

4 008 073 26 F 4 009 072 85 F 4 010 072 48 F 4 011 072 57 F

4 012 072 72 F 4 013 063 92 F 4 014 061 62 F 4 015 063 03 F

4 016 067 33 F 4 017 0 1465 F 4 018 021 84 F

351:20:35 68636 P

4 000 000 01MV 4 001 072 86 F 4 002 073 16 F 4 003 072 82 F

4 004 072 51 F 4 005 072 81 F 4 006 073 00 F 4 007 072 82 F

4 008 073 29 F 4 009 072 86 F 4 010 072 48 F 4 011 072 53 F

4 012 072 73 F 4 013 063 69 F 4 014 062 05 F 4 015 062 48 F

4 016 066 40 F 4 017 0 1316 F 4 018 021 69 F

351:20:45 68637 P

4 000 000 00MV 4 001 072 87 F 4 002 073 20 F 4 003 072 84 F

4 004 072 49 F 4 005 072 83 F 4 006 072 99 F 4 007 072 80 F

4 008 073 27 F 4 009 072 84 F 4 010 072 49 F 4 011 072 55 F

4 012 072 74 F 4 013 061 50 F 4 014 062 25 F 4 015 063 11 F

4 016 066 30 F 4 017 0 1356 F 4 018 021 82 F

351:20:55 68638 P

4 000 000 01MV 4 001 072 90 F 4 002 073 18 F 4 003 072 85 F

4 004 072 54 F 4 005 072 84 F 4 006 073 00 F 4 007 072 84 F

4 008 073 30 F 4 009 072 85 F 4 010 072 50 F 4 011 072 58 F

4 012 072 76 F 4 013 062 31 F 4 014 060 37 F 4 015 064 28 F

4 016 066 36 F 4 017 0 1409 F 4 018 021 82 F

351:21:05 68638 P

4 000 000 01MV 4 001 072 88 F 4 002 073 18 F 4 003 072 85 F

4 004 072 53 F 4 005 072 85 F 4 006 072 98 F 4 007 072 83 F

4 008 073 32 F 4 009 072 90 F 4 010 072 51 F 4 011 072 64 F

4 012 072 77 F 4 013 062 39 F 4 014 061 55 F 4 015 063 13 F

4 016 066 54 F 4 017 0 1244 F 4 018 021 91 F

351:21:15 68638 P

4 000 000 01MV 4 001 072 91 F 4 002 073 18 F 4 003 072 85 F

4 004 072 57 F 4 005 072 83 F 4 006 073 08 F 4 007 072 84 F

4 008 073 31 F 4 009 072 86 F 4 010 072 49 F 4 011 072 58 F

4 012 072 78 F 4 013 061 91 F 4 014 061 79 F 4 015 063 52 F

4 016 066 10 F 4 017 0 1359 F 4 018 021 73 F

351:21:25 68640 P

4 000 000 00MV 4 001 072 92 F 4 002 073 20 F 4 003 072 85 F

4 004 072 55 F 4 005 072 87 F 4 006 073 04 F 4 007 072 85 F

4 008 073 33 F 4 009 072 94 F 4 010 072 52 F 4 011 072 58 F

4 012 072 77 F 4 013 062 19 F 4 014 061 33 F 4 015 064 17 F

4 016 065 83 F 4 017 0 1378 F 4 018 021 70 F

351:21:35 68641 P

4 000 000 01MV 4 001 072 93 F 4 002 073 21 F 4 003 072 89 F

4 004 072 55 F 4 005 072 87 F 4 006 073 09 F 4 007 072 86 F

4 008 073 33 F 4 009 072 94 F 4 010 072 53 F 4 011 072 60 F

4 012 072 78 F 4 013 062 38 F 4 014 061 75 F 4 015 063 51 F

4 016 066 85 F 4 017 0 1373 F 4 018 021 73 F

351:21:45 68643 P

4 000 000 01MV 4 001 072 93 F 4 002 073 20 F 4 003 072 88 F

27	4 012	072.57 F	4 013	072.58 F	4 014	061.15 F	4 015	065.51 F
28	4 016	066.85 F	4 017	0.1379 F	4 018	021.73 F		
29	351:21:45		68642 P					
30	4 000	-000.01MV	4 001	072.92 F	4 002	073.20 F	4 003	072.88 F
31	4 004	072.57 F	4 005	072.88 F	4 006	073.04 F	4 007	072.89 F
32	4 008	073.35 F	4 009	072.92 F	4 010	072.54 F	4 011	072.62 F
33	4 012	072.80 F	4 013	061.94 F	4 014	060.74 F	4 015	063.29 F
34	4 016	065.80 F	4 017	0.1427 F	4 018	021.82 F		
35	351:21:55		68642 P					
36	4 000	000.01MV	4 001	072.93 F	4 002	073.21 F	4 003	072.87 F
37	4 004	072.53 F	4 005	072.89 F	4 006	073.08 F	4 007	072.88 F
38	4 008	073.37 F	4 009	072.96 F	4 010	072.55 F	4 011	072.62 F
39	4 012	072.81 F	4 013	063.85 F	4 014	061.29 F	4 015	063.86 F
40	4 016	066.47 F	4 017	0.1329 F	4 018	021.66 F		
41	351:22:05		68643 P					
42	4 000	000.00MV	4 001	072.95 F	4 002	073.25 F	4 003	072.91 F
43	4 004	072.57 F	4 005	072.89 F	4 006	073.10 F	4 007	072.89 F
44	4 008	073.37 F	4 009	072.90 F	4 010	072.56 F	4 011	072.66 F
45	4 012	072.82 F	4 013	064.54 F	4 014	061.31 F	4 015	064.64 F
46	4 016	066.73 F	4 017	0.1373 F	4 018	021.81 F		
47	351:22:15		68644 P					
48	4 000	000.00MV	4 001	072.96 F	4 002	073.25 F	4 003	072.90 F
49	4 004	072.60 F	4 005	072.89 F	4 006	073.07 F	4 007	072.92 F
50	4 008	073.37 F	4 009	072.94 F	4 010	072.58 F	4 011	072.62 F
51	4 012	072.84 F	4 013	061.63 F	4 014	061.68 F	4 015	063.12 F
52	4 016	066.76 F	4 017	0.1351 F	4 018	021.74 F		
53	351:22:25		68645 P					
54	4 000	000.00MV	4 001	072.95 F	4 002	073.26 F	4 003	072.92 F
55	4 004	072.64 F	4 005	072.85 F	4 006	073.11 F	4 007	072.91 F
56	4 008	073.39 F	4 009	073.00 F	4 010	072.59 F	4 011	072.64 F
57	4 012	072.84 F	4 013	063.19 F	4 014	060.98 F	4 015	064.70 F
58	4 016	066.88 F	4 017	0.1476 F	4 018	021.66 F		
59	351:22:35		68646 P					
60	4 000	-000.01MV	4 001	072.96 F	4 002	073.26 F	4 003	072.93 F
61	4 004	072.64 F	4 005	072.87 F	4 006	073.12 F	4 007	072.92 F
62	4 008	073.41 F	4 009	072.99 F	4 010	072.59 F	4 011	072.67 F
63	4 012	072.84 F	4 013	063.48 F	4 014	061.39 F	4 015	063.41 F
64	4 016	066.92 F	4 017	0.1408 F	4 018	021.87 F		
65	351:22:45		68646 P					
66	4 000	-000.01MV	4 001	073.01 F	4 002	073.28 F	4 003	072.95 F
67	4 004	072.56 F	4 005	072.94 F	4 006	073.11 F	4 007	072.94 F
68	4 008	073.39 F	4 009	072.99 F	4 010	072.61 F	4 011	072.65 F
69	4 012	072.85 F	4 013	065.67 F	4 014	061.20 F	4 015	065.61 F
70	4 016	066.80 F	4 017	0.1357 F	4 018	021.74 F		
71	351:22:55		68647 P					
72	4 000	-000.01MV	4 001	072.98 F	4 002	073.29 F	4 003	072.95 F
73	4 004	072.63 F	4 005	072.94 F	4 006	073.14 F	4 007	072.94 F
74	4 008	073.42 F	4 009	073.03 F	4 010	072.60 F	4 011	072.65 F
75	4 012	072.85 F	4 013	064.41 F	4 014	061.73 F	4 015	064.43 F
76	4 016	066.70 F	4 017	0.1377 F	4 018	021.72 F		
77	351:23:05		68648 P					
78	4 000	000.01MV	4 001	073.00 F	4 002	073.30 F	4 003	072.95 F
79	4 004	072.62 F	4 005	072.89 F	4 006	073.11 F	4 007	072.95 F
80	4 008	073.42 F	4 009	073.02 F	4 010	072.60 F	4 011	072.70 F
81	4 012	072.83 F	4 013	065.00 F	4 014	061.25 F	4 015	064.43 F
82	4 016	066.61 F	4 017	0.1372 F	4 018	021.86 F		
83	351:23:15		68648 P					
84	4 000	000.01MV	4 001	073.03 F	4 002	073.29 F	4 003	072.96 F
85	4 004	072.59 F	4 005	072.97 F	4 006	073.12 F	4 007	072.96 F
86	4 008	073.44 F	4 009	073.04 F	4 010	072.64 F	4 011	072.72 F
87	4 012	072.88 F	4 013	067.96 F	4 014	061.59 F	4 015	064.06 F
88	4 016	066.61 F	4 017	0.1247 F	4 018	021.81 F		
89	351:23:25		68648 P					
90	4 000	000.01MV	4 001	073.04 F	4 002	073.30 F	4 003	072.96 F

4 008	073.44 F	4 009	073.04 F	4 010	072.64 F	4 011	072.72 F
4 012	072.88 F	4 013	063.96 F	4 014	061.59 F	4 015	064.06 F
4 016	066.61 F	4 017	0.1247 F	4 018	021.81 F		
351:23:25		68648 P					
4 000	000.01MV	4 001	073.04 F	4 002	073.30 F	4 003	072.97 F
4 004	072.62 F	4 005	072.97 F	4 006	073.15 F	4 007	072.96 F
4 008	073.41 F	4 009	073.03 F	4 010	072.66 F	4 011	072.70 F
4 012	072.89 F	4 013	064.09 F	4 014	060.78 F	4 015	063.97 F
4 016	066.29 F	4 017	0.1284 F	4 018	021.72 F		
351:23:35		68650 P					
4 000	000.00MV	4 001	073.03 F	4 002	073.35 F	4 003	072.99 F
4 004	072.67 F	4 005	072.95 F	4 006	073.07 F	4 007	072.97 F
4 008	073.43 F	4 009	073.06 F	4 010	072.66 F	4 011	072.68 F
4 012	072.89 F	4 013	062.98 F	4 014	060.87 F	4 015	062.79 F
4 016	066.18 F	4 017	0.1389 F	4 018	021.76 F		
351:23:45		68651 P					
4 000	000.00MV	4 001	073.02 F	4 002	073.29 F	4 003	073.00 F
4 004	072.68 F	4 005	073.00 F	4 006	073.10 F	4 007	072.98 F
4 008	073.46 F	4 009	073.04 F	4 010	072.67 F	4 011	072.72 F
4 012	072.90 F	4 013	064.22 F	4 014	060.63 F	4 015	064.02 F
4 016	067.39 F	4 017	0.1297 F	4 018	021.80 F		
351:23:55		68651 P					
4 000	000.00MV	4 001	073.05 F	4 002	073.32 F	4 003	073.00 F
4 004	072.70 F	4 005	073.01 F	4 006	073.21 F	4 007	072.98 F
4 008	073.46 F	4 009	073.06 F	4 010	072.66 F	4 011	072.71 F
4 012	072.91 F	4 013	062.71 F	4 014	061.64 F	4 015	063.25 F
4 016	066.11 F	4 017	0.1335 F	4 018	021.69 F		
352:00:05		68652 P					
4 000	000.00MV	4 001	073.06 F	4 002	073.35 F	4 003	072.99 F
4 004	072.75 F	4 005	073.01 F	4 006	073.23 F	4 007	073.00 F
4 008	073.46 F	4 009	073.07 F	4 010	072.67 F	4 011	072.74 F
4 012	072.90 F	4 013	063.78 F	4 014	061.32 F	4 015	064.66 F
4 016	066.79 F	4 017	0.1331 F	4 018	021.64 F		
352:00:15		68653 P					
4 000	000.01MV	4 001	073.06 F	4 002	073.34 F	4 003	073.02 F
4 004	072.68 F	4 005	073.02 F	4 006	073.19 F	4 007	072.99 F
4 008	073.47 F	4 009	073.05 F	4 010	072.68 F	4 011	072.76 F
4 012	072.92 F	4 013	063.61 F	4 014	060.18 F	4 015	063.92 F
4 016	066.09 F	4 017	0.1341 F	4 018	021.70 F		
352:00:25		68654 P					
4 000	000.01MV	4 001	073.08 F	4 002	073.36 F	4 003	073.00 F
4 004	072.68 F	4 005	072.99 F	4 006	073.14 F	4 007	073.04 F
4 008	073.50 F	4 009	073.09 F	4 010	072.67 F	4 011	072.76 F
4 012	072.93 F	4 013	063.21 F	4 014	061.30 F	4 015	063.75 F
4 016	065.91 F	4 017	0.1328 F	4 018	021.77 F		
352:00:35		68655 P					
4 000	000.00MV	4 001	073.07 F	4 002	073.36 F	4 003	073.02 F
4 004	072.71 F	4 005	073.00 F	4 006	073.22 F	4 007	073.01 F
4 008	073.50 F	4 009	073.10 F	4 010	072.67 F	4 011	072.79 F
4 012	072.95 F	4 013	064.01 F	4 014	061.23 F	4 015	064.66 F
4 016	066.97 F	4 017	0.1337 F	4 018	021.81 F		
352:00:45		68656 P					
4 000	000.01MV	4 001	073.08 F	4 002	073.39 F	4 003	073.04 F
4 004	072.72 F	4 005	073.00 F	4 006	073.21 F	4 007	073.04 F
4 008	073.51 F	4 009	073.08 F	4 010	072.68 F	4 011	072.78 F
4 012	072.94 F	4 013	064.66 F	4 014	060.41 F	4 015	065.65 F
4 016	066.15 F	4 017	0.1341 F	4 018	021.92 F		
352:00:55		68656 P					
4 000	000.01MV	4 001	073.11 F	4 002	073.40 F	4 003	073.07 F
4 004	072.73 F	4 005	073.01 F	4 006	073.26 F	4 007	073.03 F
4 008	073.48 F	4 009	073.13 F	4 010	072.71 F	4 011	072.79 F
4 012	072.96 F	4 013	065.71 F	4 014	061.34 F	4 015	064.94 F
4 016	066.30 F	4 017	0.1340 F	4 018	021.87 F		

4 004	072.72 F	4 005	073.01 F	4 006	073.26 F	4 007	073.03 F
4 008	073.49 F	4 009	073.13 F	4 010	072.71 F	4 011	072.79 F
4 012	072.96 F	4 013	062.31 F	4 014	061.34 F	4 015	064.94 F
4 016	066.00 F	4 017	0.1383 F	4 018	021.67 F		
352:01:05 68657 P							
4 000	000.01MV	4 001	073.10 F	4 002	073.40 F	4 003	073.06 F
4 004	072.66 F	4 005	073.07 F	4 006	073.23 F	4 007	073.06 F
4 008	073.53 F	4 009	073.14 F	4 010	072.69 F	4 011	072.78 F
4 012	072.97 F	4 013	063.63 F	4 014	061.46 F	4 015	064.21 F
4 016	065.46 F	4 017	0.1307 F	4 018	021.88 F		
352:01:15 68658 P							
4 000	000.01MV	4 001	073.11 F	4 002	073.39 F	4 003	073.06 F
4 004	072.78 F	4 005	073.09 F	4 006	073.29 F	4 007	073.06 F
4 008	073.51 F	4 009	073.13 F	4 010	072.72 F	4 011	072.78 F
4 012	072.98 F	4 013	064.94 F	4 014	061.45 F	4 015	065.23 F
4 016	066.82 F	4 017	0.1328 F	4 018	021.90 F		
352:01:25 68658 P							
4 000	000.00MV	4 001	073.11 F	4 002	073.41 F	4 003	073.07 F
4 004	072.72 F	4 005	073.06 F	4 006	073.37 F	4 007	073.07 F
4 008	073.53 F	4 009	073.12 F	4 010	072.74 F	4 011	072.82 F
4 012	072.98 F	4 013	062.49 F	4 014	061.60 F	4 015	063.63 F
4 016	066.15 F	4 017	0.1392 F	4 018	021.92 F		
352:01:35 68659 F							
4 000	000.00MV	4 001	073.13 F	4 002	073.39 F	4 003	073.07 F
4 004	072.73 F	4 005	073.07 F	4 006	073.20 F	4 007	073.08 F
4 008	073.55 F	4 009	073.18 F	4 010	072.72 F	4 011	072.82 F
4 012	073.00 F	4 013	062.94 F	4 014	061.24 F	4 015	064.48 F
4 016	066.67 F	4 017	0.1220 F	4 018	021.84 F		
352:01:45 68660 P							
4 000	000.00MV	4 001	073.14 F	4 002	073.44 F	4 003	073.07 F
4 004	072.80 F	4 005	073.05 F	4 006	073.22 F	4 007	073.08 F
4 008	073.56 F	4 009	073.17 F	4 010	072.75 F	4 011	072.80 F
4 012	073.01 F	4 013	064.74 F	4 014	061.46 F	4 015	062.93 F
4 016	066.71 F	4 017	0.1365 F	4 018	021.72 F		
352:01:55 68661 P							
4 000	000.01MV	4 001	073.12 F	4 002	073.42 F	4 003	073.10 F
4 004	072.75 F	4 005	073.10 F	4 006	073.25 F	4 007	073.09 F
4 008	073.56 F	4 009	073.16 F	4 010	072.77 F	4 011	072.81 F
4 012	073.01 F	4 013	063.65 F	4 014	061.64 F	4 015	063.92 F
4 016	066.38 F	4 017	0.1270 F	4 018	021.84 F		
352:02:05 68662 P							
4 000	000.01MV	4 001	073.13 F	4 002	073.43 F	4 003	073.10 F
4 004	072.79 F	4 005	073.10 F	4 006	073.31 F	4 007	073.09 F
4 008	073.56 F	4 009	073.13 F	4 010	072.79 F	4 011	072.84 F
4 012	073.01 F	4 013	062.83 F	4 014	061.74 F	4 015	063.66 F
4 016	066.50 F	4 017	0.1304 F	4 018	021.84 F		
352:02:15 68662 P							
4 000	000.01MV	4 001	073.17 F	4 002	073.47 F	4 003	073.12 F
4 004	072.77 F	4 005	073.11 F	4 006	073.26 F	4 007	073.10 F
4 008	073.52 F	4 009	073.22 F	4 010	072.76 F	4 011	072.84 F
4 012	073.01 F	4 013	064.39 F	4 014	060.79 F	4 015	064.16 F
4 016	066.23 F	4 017	0.1367 F	4 018	021.78 F		
352:02:25 68662 P							
4 000	000.00MV	4 001	073.19 F	4 002	073.46 F	4 003	073.14 F
4 004	072.84 F	4 005	073.12 F	4 006	073.34 F	4 007	073.10 F
4 008	073.59 F	4 009	073.18 F	4 010	072.78 F	4 011	072.86 F
4 012	073.02 F	4 013	064.65 F	4 014	062.72 F	4 015	065.03 F
4 016	066.52 F	4 017	0.1331 F	4 018	021.86 F		
352:02:35 68662 P							
4 000	000.00MV	4 001	073.20 F	4 002	073.48 F	4 003	073.14 F
4 004	072.85 F	4 005	073.14 F	4 006	073.36 F	4 007	073.13 F
4 008	073.60 F	4 009	073.24 F	4 010	072.81 F	4 011	072.89 F
4 012	073.03 F	4 013	064.77 F	4 014	063.84 F	4 015	065.04 F

4 012	073. 04 F	4 013	064. 15 F	4 014	062. 15 F	4 015	063. 64 F
4 016	066. 53 F	4 017	0 1351 F	4 018	021. 96 F		
352:02:35		68663 P					
4 000	000. 00MV	4 001	073. 20 F	4 002	073. 46 F	4 003	073. 14 F
4 004	072. 82 F	4 005	073. 14 F	4 006	073. 28 F	4 007	073. 13 F
4 008	073. 60 F	4 009	073. 20 F	4 010	072. 81 F	4 011	072. 89 F
4 012	073. 04 F	4 013	064. 15 F	4 014	061. 61 F	4 015	063. 64 F
4 016	067. 41 F	4 017	0 1279 F	4 018	021. 91 F		
352:02:45		68664 P					
4 000	000. 00MV	4 001	073. 16 F	4 002	073. 48 F	4 003	073. 15 F
4 004	072. 86 F	4 005	073. 14 F	4 006	073. 33 F	4 007	073. 13 F
4 008	073. 59 F	4 009	073. 20 F	4 010	072. 80 F	4 011	072. 87 F
4 012	073. 06 F	4 013	062. 53 F	4 014	062. 35 F	4 015	065. 52 F
4 016	067. 63 F	4 017	0 1356 F	4 018	021. 85 F		
352:02:55		68666 P					
4 000	000. 00MV	4 001	073. 19 F	4 002	073. 50 F	4 003	073. 15 F
4 004	072. 82 F	4 005	073. 15 F	4 006	073. 32 F	4 007	073. 15 F
4 008	073. 61 F	4 009	073. 24 F	4 010	072. 81 F	4 011	072. 87 F
4 012	073. 07 F	4 013	064. 46 F	4 014	061. 13 F	4 015	063. 61 F
4 016	067. 19 F	4 017	0 1365 F	4 018	021. 84 F		
352:03:05		68666 P					
4 000	000. 01MV	4 001	073. 20 F	4 002	073. 48 F	4 003	073. 15 F
4 004	072. 79 F	4 005	073. 16 F	4 006	073. 42 F	4 007	073. 15 F
4 008	073. 61 F	4 009	073. 23 F	4 010	072. 84 F	4 011	072. 90 F
4 012	073. 07 F	4 013	063. 70 F	4 014	061. 59 F	4 015	065. 04 F
4 016	065. 88 F	4 017	0 1344 F	4 018	021. 97 F		
352:03:15		68667 P					
4 000	000. 00MV	4 001	073. 23 F	4 002	073. 52 F	4 003	073. 18 F
4 004	072. 86 F	4 005	073. 18 F	4 006	073. 40 F	4 007	073. 16 F
4 008	073. 64 F	4 009	073. 23 F	4 010	072. 81 F	4 011	072. 89 F
4 012	073. 09 F	4 013	065. 41 F	4 014	061. 10 F	4 015	063. 72 F
4 016	066. 80 F	4 017	0 1328 F	4 018	021. 97 F		
352:03:25		68668 P					
4 000	000. 00MV	4 001	073. 24 F	4 002	073. 50 F	4 003	073. 20 F
4 004	072. 83 F	4 005	073. 19 F	4 006	073. 36 F	4 007	073. 17 F
4 008	073. 65 F	4 009	073. 26 F	4 010	072. 82 F	4 011	072. 88 F
4 012	073. 09 F	4 013	061. 66 F	4 014	060. 19 F	4 015	064. 01 F
4 016	065. 96 F	4 017	0 1302 F	4 018	021. 89 F		
352:03:35		68668 P					
4 000	000. 01MV	4 001	073. 24 F	4 002	073. 52 F	4 003	073. 20 F
4 004	072. 81 F	4 005	073. 17 F	4 006	073. 43 F	4 007	073. 18 F
4 008	073. 64 F	4 009	073. 29 F	4 010	072. 86 F	4 011	072. 95 F
4 012	073. 10 F	4 013	065. 13 F	4 014	060. 66 F	4 015	064. 14 F
4 016	067. 47 F	4 017	0 1275 F	4 018	021. 88 F		
352:03:45		68670 P					
4 000	000. 00MV	4 001	073. 24 F	4 002	073. 51 F	4 003	073. 19 F
4 004	072. 91 F	4 005	073. 19 F	4 006	073. 29 F	4 007	073. 20 F
4 008	073. 65 F	4 009	073. 28 F	4 010	072. 85 F	4 011	072. 94 F
4 012	073. 11 F	4 013	061. 85 F	4 014	061. 43 F	4 015	064. 21 F
4 016	065. 83 F	4 017	0 1300 F	4 018	021. 78 F		
352:03:55		68670 P					
4 000	000. 00MV	4 001	073. 25 F	4 002	073. 54 F	4 003	073. 21 F
4 004	072. 89 F	4 005	073. 21 F	4 006	073. 44 F	4 007	073. 19 F
4 008	073. 66 F	4 009	073. 27 F	4 010	072. 86 F	4 011	072. 90 F
4 012	073. 12 F	4 013	063. 20 F	4 014	062. 01 F	4 015	063. 85 F
4 016	066. 74 F	4 017	0 1323 F	4 018	021. 86 F		
352:04:05		68671 P					
4 000	000. 00MV	4 001	073. 27 F	4 002	073. 54 F	4 003	073. 22 F
4 004	072. 93 F	4 005	073. 22 F	4 006	073. 32 F	4 007	073. 21 F
4 008	073. 67 F	4 009	073. 31 F	4 010	072. 88 F	4 011	072. 97 F
4 012	073. 10 F	4 013	061. 56 F	4 014	061. 47 F	4 015	064. 47 F
4 016	066. 81 F	4 017	0 1345 F	4 018	021. 04 F		

4 008 073.67 F 4 009 073.31 F 4 010 072.88 F 4 011 072.97 F
 4 012 073.10 F 4 013 063.54 F 4 014 061.47 F 4 015 064.47 F
 4 016 066.61 F 4 017 0.1345 F 4 018 022.04 F
 352:04:15 68672 P

4 000 000.00MV 4 001 073.28 F 4 002 073.56 F 4 003 073.21 F
 4 004 072.87 F 4 005 073.21 F 4 006 073.39 F 4 007 073.21 F
 4 008 073.70 F 4 009 073.29 F 4 010 072.88 F 4 011 072.96 F
 4 012 073.13 F 4 013 065.78 F 4 014 061.49 F 4 015 063.89 F
 4 016 067.15 F 4 017 0.1297 F 4 018 021.81 F
 352:04:25 68672 P

4 000 000.00MV 4 001 073.27 F 4 002 073.56 F 4 003 073.24 F
 4 004 072.84 F 4 005 073.25 F 4 006 073.47 F 4 007 073.20 F
 4 008 073.69 F 4 009 073.29 F 4 010 072.88 F 4 011 072.94 F
 4 012 073.12 F 4 013 065.19 F 4 014 061.47 F 4 015 064.86 F
 4 016 066.28 F 4 017 0.1296 F 4 018 021.96 F
 352:04:35 68673 P

4 000 000.00MV 4 001 073.28 F 4 002 073.57 F 4 003 073.22 F
 4 004 072.97 F 4 005 073.24 F 4 006 073.44 F 4 007 073.22 F
 4 008 073.69 F 4 009 073.26 F 4 010 072.90 F 4 011 072.98 F
 4 012 073.14 F 4 013 063.72 F 4 014 062.35 F 4 015 063.45 F
 4 016 066.31 F 4 017 0.1345 F 4 018 022.01 F
 352:04:45 68674 P

4 000 000.00MV 4 001 073.28 F 4 002 073.56 F 4 003 073.25 F
 4 004 072.98 F 4 005 073.24 F 4 006 073.48 F 4 007 073.23 F
 4 008 073.70 F 4 009 073.31 F 4 010 072.90 F 4 011 072.98 F
 4 012 073.14 F 4 013 063.39 F 4 014 061.67 F 4 015 063.68 F
 4 016 067.31 F 4 017 0.1253 F 4 018 022.00 F
 352:04:55 68675 P

4 000 000.00MV 4 001 073.30 F 4 002 073.58 F 4 003 073.26 F
 4 004 072.88 F 4 005 073.26 F 4 006 073.56 F 4 007 073.24 F
 4 008 073.71 F 4 009 073.30 F 4 010 072.90 F 4 011 072.98 F
 4 012 073.17 F 4 013 064.65 F 4 014 060.94 F 4 015 065.01 F
 4 016 067.22 F 4 017 0.1317 F 4 018 021.92 F
 352:05:05 68676 P

4 000 000.00MV 4 001 073.31 F 4 002 073.64 F 4 003 073.28 F
 4 004 072.96 F 4 005 073.24 F 4 006 073.41 F 4 007 073.25 F
 4 008 073.73 F 4 009 073.33 F 4 010 072.92 F 4 011 072.99 F
 4 012 073.17 F 4 013 062.56 F 4 014 062.14 F 4 015 064.07 F
 4 016 066.16 F 4 017 0.1349 F 4 018 021.94 F
 352:05:15 68676 P

4 000 000.00MV 4 001 073.29 F 4 002 073.63 F 4 003 073.28 F
 4 004 073.00 F 4 005 073.29 F 4 006 073.56 F 4 007 073.28 F
 4 008 073.72 F 4 009 073.29 F 4 010 072.96 F 4 011 072.99 F
 4 012 073.17 F 4 013 063.09 F 4 014 061.60 F 4 015 063.71 F
 4 016 067.29 F 4 017 0.1320 F 4 018 022.04 F
 352:05:25 68678 P

4 000 000.00MV 4 001 073.34 F 4 002 073.62 F 4 003 073.29 F
 4 004 072.96 F 4 005 073.30 F 4 006 073.50 F 4 007 073.28 F
 4 008 073.76 F 4 009 073.35 F 4 010 072.93 F 4 011 073.02 F
 4 012 073.18 F 4 013 063.77 F 4 014 061.77 F 4 015 064.00 F
 4 016 067.49 F 4 017 0.1340 F 4 018 021.88 F
 352:05:35 68678 P

4 000 000.00MV 4 001 073.35 F 4 002 073.64 F 4 003 073.28 F
 4 004 072.98 F 4 005 073.30 F 4 006 073.47 F 4 007 073.28 F
 4 008 073.77 F 4 009 073.32 F 4 010 072.95 F 4 011 073.02 F
 4 012 073.19 F 4 013 064.70 F 4 014 061.84 F 4 015 064.17 F
 4 016 065.69 F 4 017 0.1278 F 4 018 021.97 F
 352:05:45 68678 P

4 000 000.00MV 4 001 073.35 F 4 002 073.64 F 4 003 073.30 F
 4 004 073.02 F 4 005 073.28 F 4 006 073.51 F 4 007 073.29 F
 4 008 073.76 F 4 009 073.36 F 4 010 072.96 F 4 011 073.01 F
 4 012 073.20 F 4 013 064.02 F 4 014 062.20 F 4 015 064.43 F
 4 016 066.17 F 4 017 0.1254 F 4 018 022.01 F

4 000 000.00MV 4 001 073.37 F 4 002 073.67 F 4 003 073.32 F
4 004 073.00 F 4 005 073.32 F 4 006 073.55 F 4 007 073.29 F
4 008 073.77 F 4 009 073.39 F 4 010 072.95 F 4 011 073.03 F
4 012 073.21 F 4 013 064.88 F 4 014 061.45 F 4 015 063.88 F
4 016 066.41 F 4 017 0.1354 F 4 018 021.96 F
352:06:05 68680 P

4 000 000.00MV 4 001 073.37 F 4 002 073.65 F 4 003 073.32 F
4 004 072.98 F 4 005 073.33 F 4 006 073.51 F 4 007 073.31 F
4 008 073.79 F 4 009 073.41 F 4 010 072.99 F 4 011 073.07 F
4 012 073.24 F 4 013 064.11 F 4 014 062.52 F 4 015 063.80 F
4 016 067.35 F 4 017 0.1303 F 4 018 022.09 F
352:06:15 68683 P

4 000 000.00MV 4 001 073.40 F 4 002 073.68 F 4 003 073.30 F
4 004 073.07 F 4 005 073.33 F 4 006 073.49 F 4 007 073.32 F
4 008 073.80 F 4 009 073.45 F 4 010 073.00 F 4 011 073.03 F
4 012 073.24 F 4 013 064.95 F 4 014 061.57 F 4 015 064.74 F
4 016 066.50 F 4 017 0.1381 F 4 018 022.04 F
352:06:25 68683 P

4 000 000.00MV 4 001 073.38 F 4 002 073.67 F 4 003 073.34 F
4 004 073.00 F 4 005 073.33 F 4 006 073.48 F 4 007 073.33 F
4 008 073.80 F 4 009 073.44 F 4 010 073.00 F 4 011 073.09 F
4 012 073.25 F 4 013 065.27 F 4 014 061.97 F 4 015 064.93 F
4 016 065.95 F 4 017 0.1355 F 4 018 022.03 F
352:06:35 68684 P

4 000 000.00MV 4 001 073.39 F 4 002 073.67 F 4 003 073.34 F
4 004 073.09 F 4 005 073.32 F 4 006 073.52 F 4 007 073.34 F
4 008 073.78 F 4 009 073.40 F 4 010 073.01 F 4 011 073.06 F
4 012 073.25 F 4 013 065.08 F 4 014 061.29 F 4 015 065.98 F
4 016 066.87 F 4 017 0.1314 F 4 018 022.02 F
352:06:45 68684 P

4 000 000.00MV 4 001 073.42 F 4 002 073.70 F 4 003 073.35 F
4 004 073.02 F 4 005 073.38 F 4 006 073.63 F 4 007 073.34 F
4 008 073.83 F 4 009 073.45 F 4 010 073.02 F 4 011 073.09 F
4 012 073.27 F 4 013 064.80 F 4 014 061.53 F 4 015 065.12 F
4 016 066.69 F 4 017 0.1367 F 4 018 021.97 F
352:06:55 68685 P

4 000 000.00MV 4 001 073.43 F 4 002 073.71 F 4 003 073.36 F
4 004 073.03 F 4 005 073.34 F 4 006 073.63 F 4 007 073.35 F
4 008 073.81 F 4 009 073.46 F 4 010 073.03 F 4 011 073.05 F
4 012 073.28 F 4 013 065.62 F 4 014 061.83 F 4 015 064.24 F
4 016 066.23 F 4 017 0.1475 F 4 018 021.92 F
352:07:05 68686 P

4 000 000.00MV 4 001 073.42 F 4 002 073.70 F 4 003 073.35 F
4 004 073.11 F 4 005 073.38 F 4 006 073.56 F 4 007 073.35 F
4 008 073.83 F 4 009 073.44 F 4 010 073.03 F 4 011 073.07 F
4 012 073.28 F 4 013 062.60 F 4 014 060.93 F 4 015 064.51 F
4 016 066.42 F 4 017 0.1376 F 4 018 022.04 F
352:07:15 68686 P

4 000 000.00MV 4 001 073.44 F 4 002 073.71 F 4 003 073.40 F
4 004 073.08 F 4 005 073.38 F 4 006 073.57 F 4 007 073.37 F
4 008 073.84 F 4 009 073.41 F 4 010 073.02 F 4 011 073.10 F
4 012 073.20 F 4 013 065.35 F 4 014 061.68 F 4 015 064.44 F
4 016 066.79 F 4 017 0.1343 F 4 018 022.02 F
352:07:25 68688 P

4 000 000.01MV 4 001 073.45 F 4 002 073.69 F 4 003 073.39 F
4 004 073.04 F 4 005 073.40 F 4 006 073.59 F 4 007 073.37 F
4 008 073.85 F 4 009 073.45 F 4 010 073.05 F 4 011 073.10 F
4 012 073.31 F 4 013 064.24 F 4 014 061.69 F 4 015 064.48 F
4 016 067.29 F 4 017 0.1270 F 4 018 021.96 F
352:07:35 68689 P

4 000 000.01MV 4 001 073.47 F 4 002 073.75 F 4 003 073.41 F
4 004 073.15 F 4 005 073.38 F 4 006 073.55 F 4 007 073.38 F
4 008 073.86 F 4 009 073.50 F 4 010 073.05 F 4 011 073.11 F
4 012 073.32 F 4 013 065.34 F 4 014 061.68 F 4 015 064.48 F
4 016 067.31 F 4 017 0.1271 F 4 018 021.96 F
352:07:45 68690 P

4 008	073.83 F	4 009	073.43 F	4 010	073.63 F	4 011	073.20 F
4 012	073.31 F	4 013	064.24 F	4 014	061.69 F	4 015	064.48 F
4 016	067.29 F	4 017	0 1270 F	4 018	021.96 F		
352:07:35 68689 P							
4 000	000.01MV	4 001	073.47 F	4 002	073.75 F	4 003	073.41 F
4 004	073.15 F	4 005	073.38 F	4 006	073.55 F	4 007	073.38 F
4 008	073.86 F	4 009	073.50 F	4 010	073.05 F	4 011	073.11 F
4 012	073.32 F	4 013	065.34 F	4 014	061.35 F	4 015	064.53 F
4 016	067.21 F	4 017	0 1394 F	4 018	021.93 F		
352:07:45 68690 P							
4 000	000.00MV	4 001	073.47 F	4 002	073.76 F	4 003	073.43 F
4 004	073.13 F	4 005	073.39 F	4 006	073.60 F	4 007	073.39 F
4 008	073.86 F	4 009	073.51 F	4 010	073.05 F	4 011	073.11 F
4 012	073.32 F	4 013	062.06 F	4 014	061.55 F	4 015	064.34 F
4 016	066.04 F	4 017	0 1429 F	4 018	022.14 F		
352:07:55 68691 P							
4 000	000.01MV	4 001	073.47 F	4 002	073.75 F	4 003	073.42 F
4 004	073.13 F	4 005	073.42 F	4 006	073.63 F	4 007	073.40 F
4 008	073.90 F	4 009	073.55 F	4 010	073.09 F	4 011	073.14 F
4 012	073.34 F	4 013	063.83 F	4 014	062.14 F	4 015	063.45 F
4 016	067.23 F	4 017	0 1372 F	4 018	022.17 F		
352:08:05 68692 P							
4 000	000.00MV	4 001	073.48 F	4 002	073.77 F	4 003	073.44 F
4 004	073.19 F	4 005	073.41 F	4 006	073.56 F	4 007	073.42 F
4 008	073.89 F	4 009	073.50 F	4 010	073.08 F	4 011	073.16 F
4 012	073.34 F	4 013	064.88 F	4 014	061.88 F	4 015	064.73 F
4 016	066.04 F	4 017	0 1385 F	4 018	022.20 F		
352:08:15 68693 P							
4 000	000.00MV	4 001	073.52 F	4 002	073.80 F	4 003	073.45 F
4 004	073.14 F	4 005	073.45 F	4 006	073.63 F	4 007	073.42 F
4 008	073.90 F	4 009	073.53 F	4 010	073.10 F	4 011	073.16 F
4 012	073.35 F	4 013	063.71 F	4 014	061.82 F	4 015	063.79 F
4 016	066.72 F	4 017	0 1370 F	4 018	022.09 F		
352:08:25 68694 P							
4 000	000.00MV	4 001	073.50 F	4 002	073.81 F	4 003	073.46 F
4 004	073.15 F	4 005	073.45 F	4 006	073.59 F	4 007	073.41 F
4 008	073.93 F	4 009	073.54 F	4 010	073.11 F	4 011	073.19 F
4 012	073.35 F	4 013	065.75 F	4 014	061.25 F	4 015	064.11 F
4 016	066.25 F	4 017	0 1326 F	4 018	022.10 F		
352:08:35 68694 P							
4 000	000.01MV	4 001	073.52 F	4 002	073.79 F	4 003	073.47 F
4 004	073.13 F	4 005	073.48 F	4 006	073.63 F	4 007	073.44 F
4 008	073.93 F	4 009	073.53 F	4 010	073.11 F	4 011	073.19 F
4 012	073.38 F	4 013	064.17 F	4 014	061.80 F	4 015	063.63 F
4 016	067.09 F	4 017	0 1375 F	4 018	022.22 F		
352:08:45 68696 P							
4 000	000.01MV	4 001	073.51 F	4 002	073.83 F	4 003	073.49 F
4 004	073.19 F	4 005	073.41 F	4 006	073.65 F	4 007	073.45 F
4 008	073.94 F	4 009	073.54 F	4 010	073.13 F	4 011	073.18 F
4 012	073.38 F	4 013	063.91 F	4 014	061.83 F	4 015	064.36 F
4 016	066.87 F	4 017	0 1440 F	4 018	022.19 F		
352:08:55 68696 P							
4 000	000.01MV	4 001	073.53 F	4 002	073.84 F	4 003	073.49 F
4 004	073.14 F	4 005	073.46 F	4 006	073.59 F	4 007	073.46 F
4 008	073.95 F	4 009	073.56 F	4 010	073.13 F	4 011	073.19 F
4 012	073.38 F	4 013	064.70 F	4 014	062.42 F	4 015	064.35 F
4 016	067.40 F	4 017	0 1365 F	4 018	022.20 F		
352:09:05 68697 P							
4 000	000.00MV	4 001	073.56 F	4 002	073.81 F	4 003	073.48 F
4 004	073.27 F	4 005	073.47 F	4 006	073.70 F	4 007	073.47 F
4 008	073.94 F	4 009	073.59 F	4 010	073.17 F	4 011	073.16 F
4 012	073.40 F	4 013	067.42 F	4 014	061.97 F	4 015	063.60 F
4 016	068.75 F	4 017	0 1376 F	4 018	022.06 F		
352:09:15 68698 P							

4 008 073.94 F 4 009 073.59 F 4 010 073.17 F 4 011 073.16 F
4 012 073.40 F 4 013 063.42 F 4 014 061.97 F 4 015 063.60 F
4 016 068.75 F 4 017 0 1376 F 4 018 022.06 F
352:09:15 68698 P

4 000 000.01MV 4 001 073.56 F 4 002 073.03 F 4 003 073.50 F
4 004 073.16 F 4 005 073.47 F 4 006 073.59 F 4 007 073.49 F
4 008 073.97 F 4 009 073.62 F 4 010 073.16 F 4 011 073.19 F
4 012 073.41 F 4 013 062.96 F 4 014 061.35 F 4 015 064.42 F
4 016 066.66 F 4 017 0 1394 F 4 018 022.14 F
352:09:25 68699 P

4 000 000.00MV 4 001 073.56 F 4 002 073.86 F 4 003 073.52 F
4 004 073.22 F 4 005 073.52 F 4 006 073.75 F 4 007 073.47 F
4 008 073.99 F 4 009 073.62 F 4 010 073.16 F 4 011 073.24 F
4 012 073.42 F 4 013 065.76 F 4 014 061.15 F 4 015 064.40 F
4 016 066.60 F 4 017 0 1331 F 4 018 022.23 F
352:09:35 68700 P

4 000 000.00MV 4 001 073.57 F 4 002 073.85 F 4 003 073.50 F
4 004 073.14 F 4 005 073.51 F 4 006 073.65 F 4 007 073.50 F
4 008 073.98 F 4 009 073.59 F 4 010 073.17 F 4 011 073.24 F
4 012 073.42 F 4 013 061.91 F 4 014 060.58 F 4 015 063.22 F
4 016 067.46 F 4 017 0 1305 F 4 018 022.13 F
352:09:45 68700 P

4 000 000.01MV 4 001 073.58 F 4 002 073.84 F 4 003 073.54 F
4 004 073.28 F 4 005 073.53 F 4 006 073.74 F 4 007 073.51 F
4 008 074.00 F 4 009 073.61 F 4 010 073.16 F 4 011 073.21 F
4 012 073.44 F 4 013 063.07 F 4 014 062.19 F 4 015 064.63 F
4 016 066.86 F 4 017 0 1315 F 4 018 022.20 F
352:09:55 68702 P

4 000 000.00MV 4 001 073.60 F 4 002 073.88 F 4 003 073.53 F
4 004 073.29 F 4 005 073.53 F 4 006 073.76 F 4 007 073.50 F
4 008 074.01 F 4 009 073.62 F 4 010 073.21 F 4 011 073.24 F
4 012 073.43 F 4 013 062.93 F 4 014 061.84 F 4 015 065.76 F
4 016 066.54 F 4 017 0 1474 F 4 018 021.99 F
352:10:05 68705 P

4 000 000.01MV 4 001 073.60 F 4 002 073.91 F 4 003 073.57 F
4 004 073.28 F 4 005 073.58 F 4 006 073.79 F 4 007 073.52 F
4 008 074.04 F 4 009 073.64 F 4 010 073.21 F 4 011 073.27 F
4 012 073.45 F 4 013 066.22 F 4 014 061.36 F 4 015 064.45 F
4 016 066.71 F 4 017 0 1335 F 4 018 022.24 F
352:10:15 68705 P

4 000 000.00MV 4 001 073.61 F 4 002 073.88 F 4 003 073.57 F
4 004 073.26 F 4 005 073.58 F 4 006 073.69 F 4 007 073.53 F
4 008 074.03 F 4 009 073.64 F 4 010 073.23 F 4 011 073.27 F
4 012 073.46 F 4 013 062.85 F 4 014 061.44 F 4 015 063.10 F
4 016 066.97 F 4 017 0 1304 F 4 018 022.10 F
352:10:25 68707 P

4 000 000.00MV 4 001 073.61 F 4 002 073.90 F 4 003 073.57 F
4 004 073.26 F 4 005 073.57 F 4 006 073.76 F 4 007 073.53 F
4 008 074.04 F 4 009 073.64 F 4 010 073.22 F 4 011 073.27 F
4 012 073.47 F 4 013 064.73 F 4 014 062.61 F 4 015 064.90 F
4 016 067.31 F 4 017 0 1370 F 4 018 022.20 F
352:10:35 68708 P

4 000 000.01MV 4 001 073.66 F 4 002 073.96 F 4 003 073.61 F
4 004 073.27 F 4 005 073.54 F 4 006 073.79 F 4 007 073.57 F
4 008 074.05 F 4 009 073.68 F 4 010 073.25 F 4 011 073.29 F
4 012 073.49 F 4 013 062.99 F 4 014 061.36 F 4 015 063.60 F
4 016 066.32 F 4 017 0 1444 F 4 018 022.18 F
352:10:45 68709 P

4 000 000.01MV 4 001 073.66 F 4 002 073.94 F 4 003 073.61 F
4 004 073.28 F 4 005 073.63 F 4 006 073.72 F 4 007 073.57 F
4 008 074.07 F 4 009 073.70 F 4 010 073.26 F 4 011 073.30 F
4 012 073.49 F 4 013 065.07 F 4 014 061.30 F 4 015 064.68 F
4 016 066.48 F 4 017 0 1324 F 4 018 022.25 F
352:10:55 68710 P

4	008	074.07 F	4	009	073.70 F	4	010	073.26 F	4	011	073.30 F
4	012	073.48 F	4	013	065.47 F	4	014	061.70 F	4	015	064.63 F
4	016	066.48 F	4	017	0.1324 F	4	018	022.25 F			
352:10:55 68711 P											
4	000	000.00MV	4	001	073.66 F	4	002	073.93 F	4	003	073.62 F
4	004	073.32 F	4	005	073.62 F	4	006	073.79 F	4	007	073.59 F
4	008	074.07 F	4	009	073.72 F	4	010	073.25 F	4	011	073.31 F
4	012	073.51 F	4	013	064.18 F	4	014	061.96 F	4	015	064.83 F
4	016	067.24 F	4	017	0.1307 F	4	018	022.08 F			
352:11:05 68712 P											
4	000	000.00MV	4	001	073.69 F	4	002	073.93 F	4	003	073.63 F
4	004	073.42 F	4	005	073.63 F	4	006	073.78 F	4	007	073.59 F
4	008	074.10 F	4	009	073.72 F	4	010	073.26 F	4	011	073.32 F
4	012	073.51 F	4	013	065.34 F	4	014	062.15 F	4	015	066.32 F
4	016	068.51 F	4	017	0.1383 F	4	018	022.17 F			
352:11:15 68713 P											
4	000	000.01MV	4	001	073.67 F	4	002	073.95 F	4	003	073.64 F
4	004	073.33 F	4	005	073.65 F	4	006	073.81 F	4	007	073.60 F
4	008	074.10 F	4	009	073.72 F	4	010	073.28 F	4	011	073.34 F
4	012	073.51 F	4	013	063.86 F	4	014	062.98 F	4	015	064.67 F
4	016	067.63 F	4	017	0.1366 F	4	018	022.09 F			
352:11:25 68714 P											
4	000	000.01MV	4	001	073.70 F	4	002	073.97 F	4	003	073.66 F
4	004	073.43 F	4	005	073.64 F	4	006	073.82 F	4	007	073.61 F
4	008	074.11 F	4	009	073.73 F	4	010	073.26 F	4	011	073.34 F
4	012	073.54 F	4	013	064.85 F	4	014	062.86 F	4	015	064.57 F
4	016	067.78 F	4	017	0.1384 F	4	018	022.14 F			
352:11:35 68715 P											
4	000	000.01MV	4	001	073.74 F	4	002	074.00 F	4	003	073.67 F
4	004	073.35 F	4	005	073.64 F	4	006	073.85 F	4	007	073.61 F
4	008	074.13 F	4	009	073.70 F	4	010	073.28 F	4	011	073.39 F
4	012	073.55 F	4	013	065.57 F	4	014	061.98 F	4	015	064.49 F
4	016	066.70 F	4	017	0.1367 F	4	018	022.29 F			
352:11:45 68717 P											
4	000	000.00MV	4	001	073.71 F	4	002	074.03 F	4	003	073.70 F
4	004	073.39 F	4	005	073.67 F	4	006	073.86 F	4	007	073.63 F
4	008	074.15 F	4	009	073.70 F	4	010	073.28 F	4	011	073.34 F
4	012	073.55 F	4	013	065.66 F	4	014	062.85 F	4	015	065.28 F
4	016	067.17 F	4	017	0.1437 F	4	018	022.29 F			
352:11:55 68717 P											
4	000	000.00MV	4	001	073.72 F	4	002	074.02 F	4	003	073.70 F
4	004	073.41 F	4	005	073.70 F	4	006	073.83 F	4	007	073.63 F
4	008	074.16 F	4	009	073.76 F	4	010	073.35 F	4	011	073.39 F
4	012	073.57 F	4	013	065.18 F	4	014	062.52 F	4	015	065.15 F
4	016	067.09 F	4	017	0.1273 F	4	018	022.14 F			
352:12:05 68718 P											
4	000	000.01MV	4	001	073.71 F	4	002	074.03 F	4	003	073.71 F
4	004	073.34 F	4	005	073.69 F	4	006	073.83 F	4	007	073.64 F
4	008	074.18 F	4	009	073.79 F	4	010	073.32 F	4	011	073.36 F
4	012	073.58 F	4	013	065.65 F	4	014	062.89 F	4	015	066.50 F
4	016	067.31 F	4	017	0.1257 F	4	018	022.15 F			

DAIRYLAND POWER COOPERATIVE
LACROSSE BOILING WATER REACTOR (LACBWR)

PAGE 1

INTEGRATED CONTAINMENT LEAK RATE TEST *ABSOLUTE METHOD*

*****MASS PILOT ANALYSIS*****

REPORT PREPARED 17 DEC 1980

STARTING PRESSURE 67.244 PSI

DAY	TIME	PRESSURE (PSIA)	TEMP (F)	DEWPOINT (F)	VPRESS (PSIG)	AIR MASS (MEAS.)	AIR MASS (CALC.)
352	18:05	67.244	74.687	65.219	0.3077	89411.5391	89412.2500
352	18:15	67.244	74.112	64.518	0.3003	89417.7656	89411.4219
352	18:25	67.245	74.124	65.167	0.3071	89407.5859	89410.5937
352	18:35	67.246	74.135	64.776	0.3030	89412.5234	89409.7656
352	18:45	67.246	74.134	64.668	0.3019	89415.3906	89408.9375
352	18:55	67.247	74.154	65.196	0.3075	89405.8437	89408.1894
352	19:05	67.247	74.167	65.530	0.3111	89398.8906	89407.2812
352	19:15	67.248	74.175	64.707	0.3023	89410.6250	89406.4531
352	19:25	67.248	74.184	65.609	0.3119	89396.2266	89405.6328
352	19:35	67.249	74.193	65.752	0.3135	89393.9531	89404.8047
352	19:45	67.249	74.183	65.115	0.3066	89404.8125	89403.9766
352	19:55	67.250	74.199	64.723	0.3025	89409.0000	89403.1484
352	20:05	67.250	74.210	64.881	0.3041	89405.0000	89402.3203
352	20:15	67.250	74.215	64.827	0.3036	89404.8203	89401.4922
352	20:25	67.252	74.238	65.092	0.3064	89399.9141	89400.6641
352	20:35	67.252	74.228	65.531	0.3111	89395.2891	89399.8359
352	20:45	67.252	74.245	65.310	0.3087	89395.5547	89399.0078
352	20:55	67.252	74.256	64.786	0.3031	89401.2109	89398.1797
352	21:05	67.254	74.272	64.417	0.2993	89406.4141	89397.3516
352	21:15	67.254	74.286	65.631	0.3057	89395.3359	89396.5234
352	21:25	67.255	74.275	64.474	0.2998	89406.3125	89395.6953
352	21:35	67.256	74.278	65.203	0.3076	89396.8437	89394.8672
352	21:45	67.256	74.297	64.977	0.3052	89396.8750	89394.0469
352	21:55	67.256	74.300	65.373	0.3091	89390.7109	89393.2187
352	22:05	67.257	74.313	65.719	0.3134	89384.9766	89392.3906
352	22:15	67.257	74.338	65.512	0.3109	89383.6406	89391.5625
352	22:25	67.257	74.340	65.306	0.3087	89386.3750	89390.7344
352	22:35	67.258	74.332	64.731	0.3026	89397.0781	89389.9062

CALCULATED LEAK RATE PERCENT/DAY= 0.12322
UPPER CONFIDENCE LEVEL AT 95 PERCENT= 0.12088

THE ZERO TIME INTERCEPT IS 89412.25 LBS AND THE SLOPE IS -966 LBS/HR

FLOWMETER - 0.00000 SCFH
CALIBRATED - 1/10/80 SCFH

2350 2/17/8

DAIRYLAND POWER COOPERATIVE
LACROSSE BOILING WATER REACTOR (LACBWR)

PAGE 3

INTEGRATED CONTAINMENT LEAK RATE TEST *INPUT LIST*

INPUT DATA AND EDIT MESSAGES

REPORT PREPARED

17 DEC 1980

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352-18-05      68758 P
4 000 000 00MV 4 001 074.17 F 4 002 074.42 F 4 003 074.12 F
4 004 073.81 F 4 005 074.10 F 4 006 074.19 F 4 007 074.02 F
4 008 074.56 F 4 009 074.15 F 4 010 073.70 F 4 011 073.74 F
4 012 073.95 F 4 013 066.40 F 4 014 062.40 F 4 015 065.11 F
4 016 066.92 F 4 017 0 1350 F 4 018 022.62 F
352-18-15      68758 P
4 000 000 01MV 4 001 074.15 F 4 002 074.42 F 4 003 074.14 F
4 004 073.89 F 4 005 074.09 F 4 006 074.32 F 4 007 074.02 F
4 008 074.57 F 4 009 074.18 F 4 010 073.72 F 4 011 073.76 F
4 012 073.97 F 4 013 064.31 F 4 014 061.80 F 4 015 064.05 F
4 016 067.21 F 4 017 0 1461 F 4 018 022.60 F
352-18-25      68759 P
4 000 000 00MV 4 001 074.18 F 4 002 074.47 F 4 003 074.16 F
4 004 073.94 F 4 005 074.13 F 4 006 074.25 F 4 007 074.03 F
4 008 074.58 F 4 009 074.16 F 4 010 073.72 F 4 011 073.77 F
4 012 073.97 F 4 013 064.65 F 4 014 061.93 F 4 015 065.73 F
4 016 067.59 F 4 017 0 1492 F 4 018 022.56 F
352-18-35      68760 P
4 000 000 00MV 4 001 074.17 F 4 002 074.47 F 4 003 074.17 F
4 004 073.88 F 4 005 074.13 F 4 006 074.29 F 4 007 074.05 F
4 008 074.60 F 4 009 074.20 F 4 010 073.75 F 4 011 073.80 F
4 012 073.99 F 4 013 063.37 F 4 014 062.16 F 4 015 065.40 F
4 016 067.14 F 4 017 0 1399 F 4 018 022.46 F
352-18-45      68761 P
4 000 000 00MV 4 001 074.18 F 4 002 074.47 F 4 003 074.16 F
4 004 073.87 F 4 005 074.09 F 4 006 074.32 F 4 007 074.04 F
4 008 074.61 F 4 009 074.20 F 4 010 073.76 F 4 011 073.79 F
4 012 074.01 F 4 013 064.04 F 4 014 061.61 F 4 015 064.15 F
4 016 067.92 F 4 017 0 1406 F 4 018 022.60 F
352-18-55      68762 P
4 000 000 00MV 4 001 074.24 F 4 002 074.48 F 4 003 074.18 F
4 004 073.93 F 4 005 074.13 F 4 006 074.29 F 4 007 074.05 F
4 008 074.62 F 4 009 074.19 F 4 010 073.79 F 4 011 073.83 F
4 012 074.01 F 4 013 066.74 F 4 014 062.89 F 4 015 065.01 F
4 016 066.33 F 4 017 0 1395 F 4 018 022.67 F
352-19-05      68762 P
4 000 000 00MV 4 001 074.23 F 4 002 074.52 F 4 003 074.20 F
4 004 073.92 F 4 005 074.15 F 4 006 074.35 F 4 007 074.06 F
4 008 074.64 F 4 009 074.24 F 4 010 073.74 F 4 011 073.81 F
4 012 074.02 F 4 013 067.14 F 4 014 063.36 F 4 015 065.13 F
4 016 067.53 F 4 017 0 1417 F 4 018 023.57 F
352-19-15      68763 P
4 000 000 00MV 4 001 074.22 F 4 002 074.51 F 4 003 074.19 F
4 004 073.91 F 4 005 074.17 F 4 006 074.33 F 4 007 074.09 F
4 008 074.67 F 4 009 074.26 F 4 010 073.75 F 4 011 073.82 F
4 012 074.03 F 4 013 067.13 F 4 014 063.05 F 4 015 064.08 F
4 016 067.13 F 4 017 0 1417 F 4 018 023.75 F

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352:19:25	68763 P						
4 000	000 00MV	4 001	074 23 F	4 002	074 53 F	4 003	074 21 F
4 004	073 92 F	4 005	074 18 F	4 006	074 36 F	4 007	074 09 F
4 008	074 64 F	4 009	074 26 F	4 010	073 80 F	4 011	073 83 F
4 012	074 05 F	4 013	067 71 F	4 014	062 46 F	4 015	065 40 F
4 016	067 16 F	4 017	0 1345 F	4 018	022 60 F		
352:19:35	68764 P						
4 000	000 00MV	4 001	074 25 F	4 002	074 53 F	4 003	074 22 F
4 004	073 97 F	4 005	074 18 F	4 006	074 33 F	4 007	074 09 F
4 008	074 67 F	4 009	074 28 F	4 010	073 82 F	4 011	073 83 F
4 012	074 04 F	4 013	067 96 F	4 014	062 97 F	4 015	065 39 F
4 016	067 06 F	4 017	0 1384 F	4 018	022 67 F		
352:19:45	68764 P						
4 000	000 01MV	4 001	074 21 F	4 002	074 53 F	4 003	074 22 F
4 004	073 94 F	4 005	074 17 F	4 006	074 29 F	4 007	074 10 F
4 008	074 68 F	4 009	074 29 F	4 010	073 81 F	4 011	073 80 F
4 012	074 05 F	4 013	065 00 F	4 014	062 28 F	4 015	065 14 F
4 016	067 44 F	4 017	0 1483 F	4 018	022 74 F		
352:19:55	68765 P						
4 000	000 01MV	4 001	074 26 F	4 002	074 54 F	4 003	074 25 F
4 004	073 90 F	4 005	074 20 F	4 006	074 32 F	4 007	074 11 F
4 008	074 70 F	4 009	074 28 F	4 010	073 79 F	4 011	073 86 F
4 012	074 07 F	4 013	064 39 F	4 014	062 17 F	4 015	065 04 F
4 016	065 69 F	4 017	0 1394 F	4 018	022 79 F		
352:20:05	68765 P						
4 000	000 00MV	4 001	074 27 F	4 002	074 56 F	4 003	074 26 F
4 004	073 96 F	4 005	074 19 F	4 006	074 35 F	4 007	074 13 F
4 008	074 70 F	4 009	074 24 F	4 010	073 82 F	4 011	073 84 F
4 012	074 08 F	4 013	063 93 F	4 014	062 13 F	4 015	064 45 F
4 016	067 98 F	4 017	0 1422 F	4 018	022 74 F		
352:20:15	68765 P						
4 000	000 00MV	4 001	074 29 F	4 002	074 57 F	4 003	074 26 F
4 004	073 98 F	4 005	074 18 F	4 006	074 35 F	4 007	074 12 F
4 008	074 70 F	4 009	074 30 F	4 010	073 82 F	4 011	073 82 F
4 012	074 08 F	4 013	064 96 F	4 014	061 79 F	4 015	064 62 F
4 016	067 38 F	4 017	0 1419 F	4 018	022 59 F		
352:20:25	68767 P						
4 000	000 00MV	4 001	074 30 F	4 002	074 60 F	4 003	074 29 F
4 004	073 96 F	4 005	074 22 F	4 006	074 40 F	4 007	074 13 F
4 008	074 74 F	4 009	074 30 F	4 010	073 85 F	4 011	073 85 F
4 012	074 10 F	4 013	064 99 F	4 014	062 92 F	4 015	064 82 F
4 016	067 10 F	4 017	0 1455 F	4 018	022 57 F		
352:20:35	68767 P						
4 000	000 01MV	4 001	074 31 F	4 002	074 57 F	4 003	074 28 F
4 004	073 97 F	4 005	074 23 F	4 006	074 32 F	4 007	074 14 F
4 008	074 75 F	4 009	074 27 F	4 010	073 84 F	4 011	073 83 F
4 012	074 11 F	4 013	067 02 F	4 014	062 42 F	4 015	065 20 F
4 016	067 49 F	4 017	0 1326 F	4 018	022 46 F		
352:20:45	68767 P						
4 000	000 01MV	4 001	074 30 F	4 002	074 62 F	4 003	074 29 F
4 004	074 03 F	4 005	074 24 F	4 006	074 36 F	4 007	074 15 F
4 008	074 72 F	4 009	074 31 F	4 010	073 85 F	4 011	073 85 F
4 012	074 11 F	4 013	064 72 F	4 014	062 15 F	4 015	065 30 F
4 016	068 20 F	4 017	0 1435 F	4 018	022 59 F		
352:20:55	68767 P						
4 000	000 01MV	4 001	074 30 F	4 002	074 61 F	4 003	074 30 F
4 004	074 03 F	4 005	074 24 F	4 006	074 40 F	4 007	074 17 F
4 008	074 75 F	4 009	074 34 F	4 010	073 86 F	4 011	073 86 F
4 012	074 12 F	4 013	064 23 F	4 014	062 45 F	4 015	064 85 F
4 016	068 35 F	4 017	0 1435 F	4 018	022 53 F		
352:21:05	68767 P						
4 000	000 00MV	4 001	074 31 F	4 002	074 61 F	4 003	074 30 F
4 004	074 03 F	4 005	074 24 F	4 006	074 43 F	4 007	074 15 F

4 016 066 68 F 4 017 0 1323 F 4 018 022 58 F
352 21 05 68769 F

4 000 000 00MV 4 001 074 31 F 4 002 074 61 F 4 003 074 32 F
4 004 074 02 F 4 005 074 27 F 4 006 074 42 F 4 007 074 18 F
4 008 074 75 F 4 009 074 37 F 4 010 073 88 F 4 011 073 89 F
4 012 074 13 F 4 013 063 52 F 4 014 062 01 F 4 015 065 02 F
4 016 066 34 F 4 017 0 1399 F 4 018 022 64 F

352 21 15 68769 F

4 000 -000 01MV 4 001 074 35 F 4 002 074 62 F 4 003 074 32 F
4 004 074 03 F 4 005 074 26 F 4 006 074 51 F 4 007 074 18 F
4 008 074 77 F 4 009 074 36 F 4 010 073 90 F 4 011 073 89 F
4 012 074 13 F 4 013 066 50 F 4 014 061 69 F 4 015 064 95 F
4 016 066 99 F 4 017 0 1237 F 4 018 022 48 F

352 21 25 68770 F

4 000 000 00MV 4 001 074 33 F 4 002 074 60 F 4 003 074 32 F
4 004 074 04 F 4 005 074 27 F 4 006 074 41 F 4 007 074 20 F
4 008 074 77 F 4 009 074 33 F 4 010 073 89 F 4 011 073 87 F
4 012 074 16 F 4 013 063 47 F 4 014 061 31 F 4 015 065 09 F
4 016 065 97 F 4 017 0 1284 F 4 018 022 59 F

352 21 35 68771 F

4 000 000 00MV 4 001 074 33 F 4 002 074 63 F 4 003 074 31 F
4 004 074 06 F 4 005 074 27 F 4 006 074 38 F 4 007 074 19 F
4 008 074 76 F 4 009 074 34 F 4 010 073 89 F 4 011 073 90 F
4 012 074 17 F 4 013 064 47 F 4 014 062 58 F 4 015 064 90 F
4 016 067 98 F 4 017 0 1470 F 4 018 022 74 F

352 21 45 68771 F

4 000 000 01MV 4 001 074 33 F 4 002 074 63 F 4 003 074 34 F
4 004 074 07 F 4 005 074 29 F 4 006 074 48 F 4 007 074 21 F
4 008 074 79 F 4 009 074 34 F 4 010 073 89 F 4 011 073 90 F
4 012 074 18 F 4 013 064 14 F 4 014 061 72 F 4 015 065 05 F
4 016 068 02 F 4 017 0 1343 F 4 018 022 68 F

352 21 55 68771 F

4 000 000 01MV 4 001 074 37 F 4 002 074 65 F 4 003 074 30 F
4 004 074 05 F 4 005 074 28 F 4 006 074 34 F 4 007 074 22 F
4 008 074 79 F 4 009 074 41 F 4 010 073 93 F 4 011 073 91 F
4 012 074 17 F 4 013 066 41 F 4 014 061 04 F 4 015 066 20 F
4 016 067 23 F 4 017 0 1388 F 4 018 022 61 F

352 22 05 68772 F

4 000 -000 01MV 4 001 074 40 F 4 002 074 65 F 4 003 074 35 F
4 004 074 11 F 4 005 074 29 F 4 006 074 42 F 4 007 074 22 F
4 008 074 80 F 4 009 074 38 F 4 010 073 92 F 4 011 073 92 F
4 012 074 19 F 4 013 066 60 F 4 014 065 26 F 4 015 065 78 F
4 016 067 13 F 4 017 0 1413 F 4 018 022 65 F

352 22 15 68772 F

4 000 -000 01MV 4 001 074 38 F 4 002 074 69 F 4 003 074 34 F
4 004 074 16 F 4 005 074 36 F 4 006 074 54 F 4 007 074 24 F
4 008 074 80 F 4 009 074 41 F 4 010 073 94 F 4 011 073 96 F
4 012 074 19 F 4 013 064 85 F 4 014 063 03 F 4 015 064 88 F
4 016 068 79 F 4 017 0 1444 F 4 018 022 50 F

352 22 25 68772 F

4 000 000 00MV 4 001 074 41 F 4 002 074 68 F 4 003 074 38 F
4 004 074 08 F 4 005 074 33 F 4 006 074 49 F 4 007 074 23 F
4 008 074 84 F 4 009 074 44 F 4 010 073 97 F 4 011 073 93 F
4 012 074 19 F 4 013 067 70 F 4 014 063 17 F 4 015 064 73 F
4 016 067 06 F 4 017 0 1309 F 4 018 022 54 F

352 22 35 68773 F

4 000 000 00MV 4 001 074 40 F 4 002 074 67 F 4 003 074 37 F
4 004 074 06 F 4 005 074 32 F 4 006 074 42 F 4 007 074 24 F
4 008 074 93 F 4 009 074 43 F 4 010 073 98 F 4 011 073 94 F
4 012 074 23 F 4 013 064 72 F 4 014 065 46 F 4 015 063 79 F
4 016 067 13 F 4 017 0 1314 F 4 018 022 55 F

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
M-37	Personnel Airlock	B	7-21-79	3.56	3.75	3.56	None
			11-17-79	1.88	3.75	1.88	None
			3-14/15-80	1.5	3.75	1.5	None
			7-12-80	1.13	3.75	1.13	None
			11-30-80	0.0	3.75	0.0	None
M-38	Emergency Airlock	B	8-18-79	0.1296	0.749	0.1296	None
			12-22-79	1.0372	0.749	0.0	Installed new shaft seals and o-rings at external door. Retested 12-23-79 with as-left leak rate of 0.0 SCFH. (Refer to RO-79-19, LAC-6711).
			4-11-80	0.0	0.749	0.0	None
			8-17-80	0.648	0.749	0.648	None
			11-28-80	0.259	0.749	0.259	None
M-6	Main Steam Penetration	B	4- 9-80	0.048	0.375	0.048	None
			11-29-80	0.024	0.375	0.024	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
M-7	Feedwater Penetration	B	4- 9-80	0.054	0.375	0.054	None
			11-29-80	0.0978	0.375	0.0978	None
M-26	Heating Steam and Condensate Return Penetration	B	4-16-80	0.051	0.375	0.0978	None
			11-29-80	0.0064	0.375	0.0064	None
M-39	Freight Door	B	4- 9-80	0.025	0.375	0.025	None
			11-28-80	0.026	0.375	0.026	None
M-36	Containment Building Vacuum Breaker No. 1	C	4-14-80	0.0	0.375	0.0	None
			11-28-80	0.0	0.375	0.0	None
M-32	Containment Building Vacuum Breaker No. 2	C	4-14-80	0.0	0.375	0.0	None
			11-28-80	0.0	0.375	0.0	None
1D	Electrical Penetration	B	4- 9-80	0.037	0.375	0.037	None
			11-27-80	0.0	0.375	0.0	None
1E	Electrical Penetration	B	4- 9-80	0.0	0.375	0.0	None
			11-27-80	0.0	0.375	0.0	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
2A	Electrical Penetration	B	4- 9-80	0.0	0.375	0.0	None
			11-27-80	0.0	0.375	0.0	None
2B	Electrical Penetration	B	4- 9-80	0.046	0.375	0.046	None
			11-27-80	0.0	0.375	0.0	None
2C	Electrical Penetration	B	4- 9-80	0.0	0.375	0.0	None
			11-27-80	0.0	0.375	0.0	None
2D	Electrical Penetration	B	4- 9-80	0.0	0.375	0.0	None
			11-27-80	0.0	0.375	0.0	None
2E	Electrical Penetration	B	4- 9-80	0.0	0.375	0.0	None
			11-27-80	0.0	0.375	0.0	None
3	Electrical Penetration	B	4- 9-80	0.589	0.375	0.029	Resealed individual cable penetrations and retested on 4-11-80 with satisfactory leak rate of 0.029 SCFH (as-left). (Ref.: RO-80-01, LAC-6873)
			11-27-80	0.0	0.375	0.0	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
4	Electrical Penetration	B	4- 9-80	12.377	0.375	0.019	Resealed individual cable penetrations and retested on 4-24-80 with satisfactory leak rate of 0.019 SCFH. (Ref.: RO-80-01, LAC-6873)
			11-27-80	0.0	0.375	0.0	None
5	Electrical Penetration	B	4- 9-80	0.589	0.375	0.029	Resealed individual cable penetrations and retested on 4-18-80 with as-left leak rate of 0.029 SCFH. (Ref: RO-80-01, LAC-6873)
			11-27-80	0.0	0.375	0.0	None
6	Electrical Penetration	B	4- 9-80	0.0	0.375	0.0	None
			11-27-80	2.95	0.375	0.0	Resealed individual penetration and retested on 12-19-80 with as-left leak rate of 0.0 SCFH. (Ref: RO-80-13, LAC-7278)
1B	Electrical Penetrations Includes 21 Individual Penetrations Tested Separately	B	4- 8-80	0.006 Max.	0.0936 Each	0.006 Max.	None
			11-30-80	0.0043 Max.	0.0936 Each	0.0043 Max.	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
1C	Electrical Penetrations Includes 25 Individual Penetrations Tested Individually	B	4- 9-80	0.002 Max.	0.0936 Each	0.002 Max.	None
			11-30-80	0.005 Max.	0.0936 Each	0.005 Max.	None
M-33	Containment Building Spray Hand Wheel	B	4-10-80	0.000174	0.375	0.000174	None
			11-28-80	0.0007	0.375	0.007	None
M-21	Containment Ventilation Discharge Dampers	C	4-15-80	40.79	0.375	0.05439	Replaced seat ring in upstream damper, repacked and retested on 4-18-80 with as-left leak rate of 0.05439 SCFH. (Ref.: RO-80-02, LAC-6882)
		B	4-18-80	0.0	soap bubble	0.0	None
		C	11-30-80	0.0135	0.375	0.0135	None
		B	11-30-80	0.0	soap bubble	0.0	None
M-31	Containment Ventilation Inlet Dampers	C	4-15-80	0.258	0.375	0.258	None
		B	4-15-80	0.0	soap bubble	0.0	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS- FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
M-31 (Cont'd)	Containment	C	11-30-80	0.0	0.375	0.0	None
	Ventilation Inlet Dampers	B	11-30-80	0.0	soap bubble	0.0	None
M-29	Reactor Vent Header Valve	C	4-12-80	0.0988	0.375	0.0988	None
			12-16-80	3.8	0.375	0.0	Replaced valve and retested on 1-14-81 with as-left leak rate of 0.0 SCFH. (Ref.: RO-80-17, LAC-7295)
M-26	Containment Heating Steam Valve	C	4-17-80	0.0	0.375	0.0	None
		C	11-27-80	0.0	0.375	0.0	None
	Heating Steam Condensate Return Valve	C	4-17-80	3.6	0.375	0.0	Replaced valve seals and retested on 4-25-80 with as-left leak rate of 0.0 SCFH. (Ref.: RO-80-03 LAC-6882)
		C	11-27-80	14.34	0.375	0.0	Replaced valve internals and retested on 12-2-80 with as-left leak rate of 0.0 SCFH. (Ref.: RO-80-14, LAC-7268)

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
M-13	Containment Penetration Station Air Valve	C	4-15-80	0.0	0.375	0.0	None
			11-29-80	0.0	0.375	0.0	None
M-6 & M-7	Main Steam Isolation and Bypass Valve/ Feedwater Check Valve	C	4-20-80/	5.803/	22.47	5.803/	None
			4-13-80	4.71	Total	4.71	
			12-16-80	4.657/ 9.81	22.47 Total	4.657/ 0.02	Teflon reapplied to feed-water check valve seat to reduce overall Containment Building leak rate. Retested 1-14-81 with as-left leak rate of 0.020 SCFH.
M-17	Decay Heat Blowdown and Steam Traps to Hotwell Containment Isolation Valves	C	4-13-80	0.0	0.375	0.0	None
			12-16-80	0.0	0.375	0.0	None
M-19	Shutdown Condenser Vent to Offgas Isolation Valve	C	4-13-80	0.0	0.375	0.0	None
			12-16-80	0.0	0.375	0.0	None
M-23	Primary Purification Resin Sluice Line Valves	C	4-13-80	0.0	0.375	0.0	None
			12-16-80	0.0	0.375	0.0	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

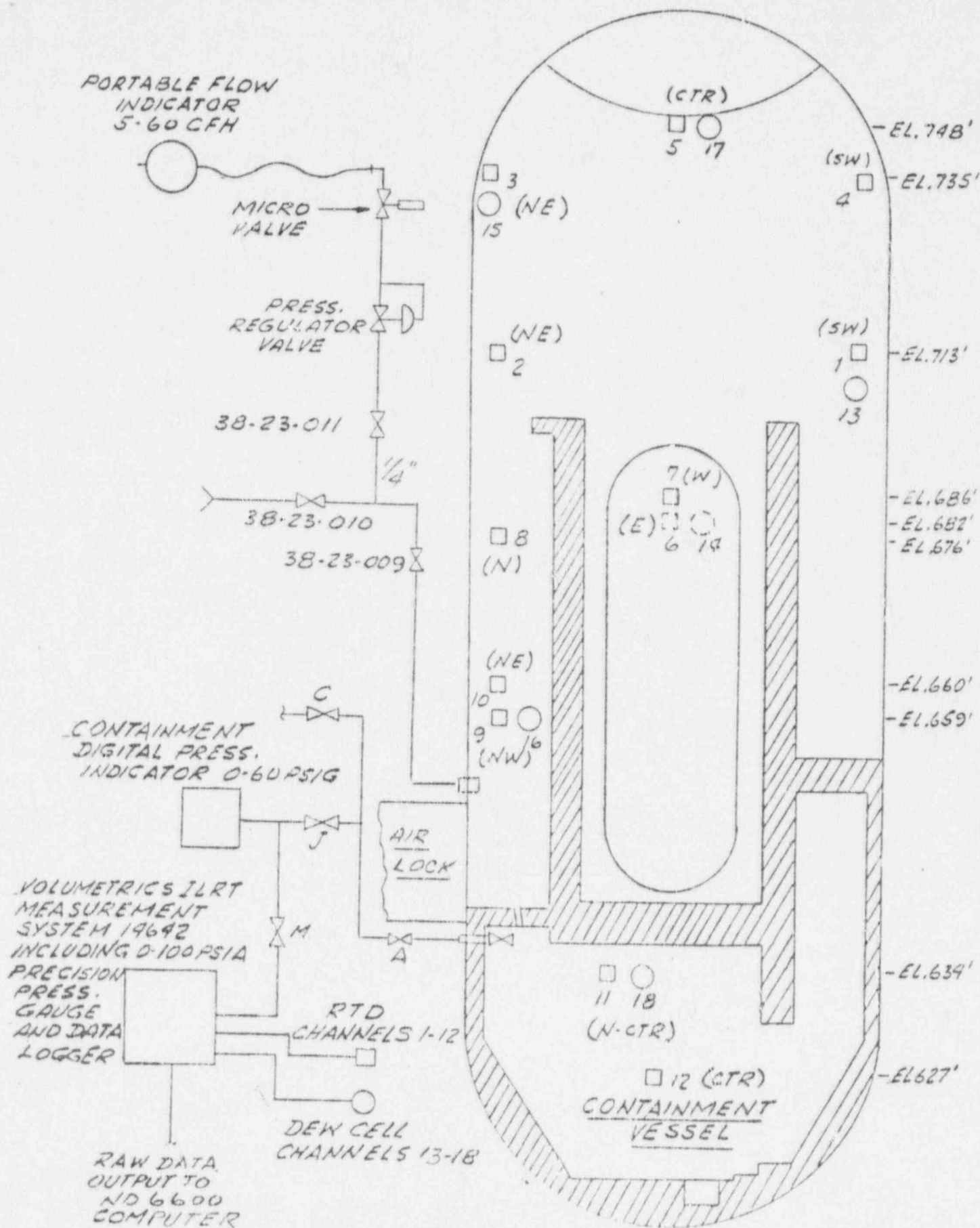
(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS- FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
1-A	Alternate Core Spray Check Valves	C	4-13-80	0.0	0.375	0.0	None
			12-16-80	0.0	0.375	0.0	None
1-A	Electrical Penetra- tions (Includes 3 Individual Penetra- tions Test Separately)	B	4- 8-80	0.002 Total (3)	0.375 Each	0.002 Total (3)	None
			11-29-80	0.0032 Total (3)	0.375 Each	0.0032 Total (3)	None
1-A	Containment Building Suction Drain Line Isolation Valves	C	4-10-80	0.04	0.375	0.04	None
			11-29-80	0.16	0.375	0.16	None
M-11	Demineralized Water Containment Isolation Valve	C	4-14-80	0.096	0.375	0.096	None
			11-29-80	0.205	0.375	0.205	None
M-18	Condensate Deminera- lizer to Seal Injec- tion Reservoir Makeup Line Containment Isolation Valve	C	4-18-80	0.0023	0.375	0.0023	None
			12- 4-80	0.143	0.375	0.143	None
M-12	Containment Control Air Isolation Valve	C	4-15-80	0.0	0.375	0.0	None
			12-16-80	0.0	0.375	0.0	None

APPENDIX 5 - SUMMARY OF TYPE B AND C TEST RESULTS 6/79 - 12/80

(TABULATED LEAKAGE RATES DO NOT INCLUDE INSTRUMENT AND HUMAN ERROR FACTORS)

PENETRATION NO.	DESCRIPTION	TEST TYPE	TEST DATES	TOTAL AS-FOUND LEAKAGE (SCFH)	ALLOWABLE LEAKAGE (SCFH)	LEAKAGE AS-LEFT (SCFH)	REMARKS
M-8	HPSW Containment Isolation Valve	C	4-14-80	0.019	0.375	0.019	None
			11-29-80	0.2109	0.375	0.2109	None
M-23	FESW Ion Exchanger Resin Sluice Line Containment Isolation Valves	C	4-13-80	0.0	0.375	0.0	None
			11-30-80	0.0	0.375	0.0	None
M-22	Retention Tank Pump Discharge Control Valve	C	4-17-80	0.0	0.375	0.0	None
			11-29-80	> 0.56 < 4.0	0.375	0.0	Valve was relapped, gaskets and packing replaced and retested on 12-4-80 with as-left leak rate of 0.0 SCFH. (Ref.: RO-80-15, LAC-7268)
M-28	Reactor Cavity Purge Air Isolation Check Valve	C	4-16-80	0.042	0.375	0.042	None
			12-16-80	1.97	0.375	0.0	Replaced valve and retested on 12-19-80 with as-left leak rate of 0.0 SCFH. (Ref.: RO-80-17, LAC-7295)
1A	Containment Building Pressure Switches	C	4-17-80	0.0017	0.375	0.0017	None
			11-29-80	0.0	0.375	0.0	None



LACBWR CONTAINMENT INTEGRATED
LEAK RATE TEST EQUIPMENT LAYOUT

FIGURE 1

CONTAINMENT AIR MASS VS TIME
INTEGRATED LEAK RATE TEST
DECEMBER 1980

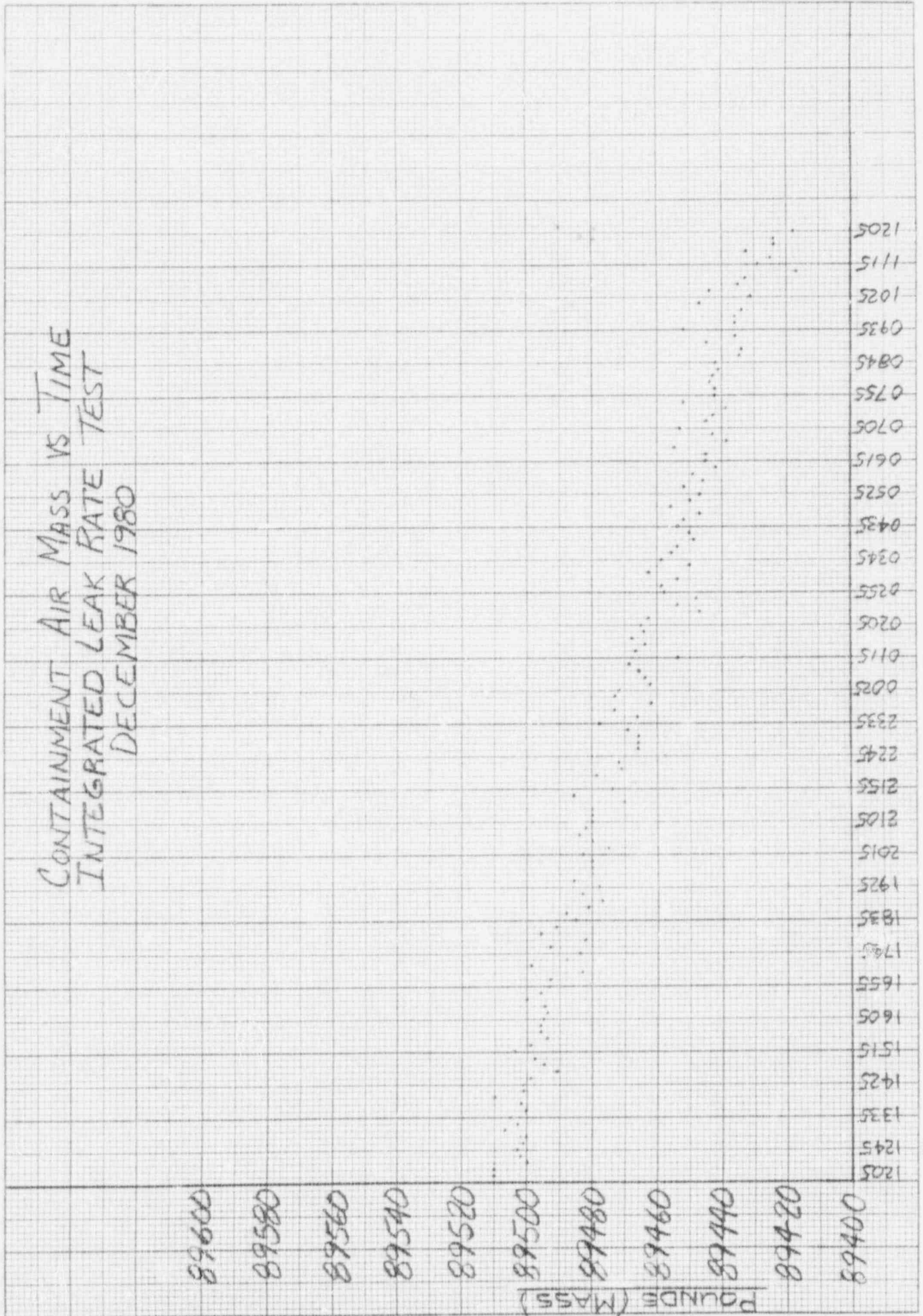


FIGURE 2
- 54 -

16 x 10 x 10 1/2 INCH 46 1320
RELUPPEL & LEBER CO.

12/17/80

12/16/80