SPEOGA-38250-23FR
SPE OGA
Final Report
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UNITED TECHNOLOGIES
HAMILTON STANDARD

FINAL REPORT

FOR THE

SPE® OXYGEN GENERATOR ASSEMBLY (OGA)

(REFURBISHMENT OF THE TECHNOLOGY DEMONSTRATOR LFSPE OXYGEN GENERATION SUBSYSTEM)

CONTRACT NAS8-38250-23

BY

UNITED TECHNOLOGIES CORPORATION
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[illegible] 500 PROCESS	11.30	1.41	28.4	2	1.013	179	197	107	3.40	5.66	50	15	116	96	0.41	[illegible]	15.4	60	1.010	1.011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.352	0.046
24-SEP-94 09:33:00 500 PROCESS	11.27	1.40	28.6	3	1.004	177	197	103	3.45	5.69	50	18	117	90	0.45	11.8	15.3	60	1.011	1.018	1.015	1.009	1.133	0.443	0.320	0.370	0.355	0.044
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24-SEP-94 09:53:00 500 PROCESS	11.27	1.41	28.9	2	1.007	179	197	106	3.41	5.36	50	15	117	98	0.43	13.9	15.1	60	1.004	1.010	1.015	1.013	1.131	0.451	0.315	0.386	0.353	0.017
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24-SEP-94 10:42:58 500 PROCESS	11.21	1.40	29.7	3	1.002	180	197	107	3.38	5.28	50	15	110	99	0.42	17.6	11.3	60	1.006	1.010	1.002	1.006	1.130	0.446	0.319	0.371	0.361	0.029

DATE: 24-SEP-94 LFSPE OXYGEN GENERATION TIME: 10:45:11
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.24 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 29.7 HOURS LAST 406 LEVEL: 3

CG746-1 -1 % LEL	H2V760-1 1.006 V	VLT906-1 1.803 V
CG746-2 -0 % LEL	H2V760-2 1.015 V	VLT906-2 1.700 V
CG746-3 0 % LEL	H2V760-3 1.012 V	VLT906-3 1.798 V
CG746-4 -1 % LEL	H2V760-4 1.007 V	VLT906-4 1.709 V
CS755 0.0 UMHO/CM	H2V900 1.131 V	VLT906-5 1.700 V
I760 60 AMPS	H2PAVG 1.034 V	VLT906-6 1.799 V
		VLT906-7 1.011 V
	I760-1 0.447 A	VLT906-8 1.030 V
	I760-2 0.314 A	VLT906-9 1.007 V
	I760-3 0.379 A	VLT906-10 1.003 V
	I760-4 0.359 A	VLT906-11 1.032 V
	I900 0.024 A	VLT906-12 1.037 V
		CELLAVG 1.010 V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

DATE: 24-SEP-94 LFSPE OXYGEN GENERATION TIME: 10:45:21
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.29 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 29.7 HOURS LAST 406 LEVEL: 3

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 179 PSIA
V005-1 PRODUCT	LEV606-2 OFF	P706-2 197 PSIA
V005-2 PRODUCT	LEV606-3 ON	P706-3 106 PSIA
V951-1 CLOSED	LEV606-4 OFF	DP709 3.50 PSID
V951-2 CLOSED	LEV606-5 OFF	DP708 5.92 PSID
V953 CLOSED	LEV606-6 OFF	DP749-1 50 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 16 PSID
V001-2 OPEN	PUR705 ON	T762-1 116 F
V001-3 CLOSED		T762-2 116 F
V001-4 CLOSED	CALC745 0.41 GPH	T736-1 99 F
FAN422 ON	LEV605-1 12.6 CU IN	T736-2 102 F
PMP463 ON	LEV605-2 10.0 CU IN	P713 174 PSIS
PMP464 ON		

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 1 OF 2

24-SEP-94 10:52:58 500 PROCESS	11.23	1.40	29.8	3	1.014	177	197	104	3.42	5.75	50	18	115	99	0.44	12.5	16.4	60	0.998	1.013	1.012	1.012	1.132	0.446	0.325	0.379	0.361	0.044
24-SEP-94 11:02:58 500 PROCESS	11.23	1.40	30.0	3	1.002	180	197	107	3.47	5.65	50	15	110	100	0.46	12.6	15.2	60	1.006	1.011	1.013	1.012	1.134	0.452	0.322	0.363	0.365	0.039
24-SEP-94 11:12:58 500 PROCESS	11.24	1.40	30.1	3	1.009	178	197	104	3.41	5.25	50	18	117	95	0.45	[illegible]	12.6	60	1.005	1.011	1.006	1.013	1.133	0.442	0.317	0.309	0.355	0.020

FINAL REPORT
REVISION SUMMARY

REVISION	PAGE	DESCRIPTION	DATE
Basic	All	Initial release	7/14/95

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1.0 INTRODUCTION

The SPE Oxygen Generator Assembly (OGA) has been modified to correct operational deficiencies present in the original system, and to effect changes to the system hardware and software such that its operating conditions are consistent with the latest configuration requirements for the International Space Station Alpha (ISSA). The effectiveness of these changes has recently been verified through a comprehensive test program which saw the SPE OGA operate for over 740 hours at various test conditions, including over 690 hours, or approximately 460 cycles, simulating the orbit of the space station.

This report documents the changes made to the SPE OGA, presents and discusses the test results from the acceptance test program, and provides recommendations for additional development activities pertinent to evolution of the SPE OGA to a flight configuration. Copies of the test data from the acceptance test program are provided with this report on 3.5" diskettes in self-extracting archive files.

2.0 BACKGROUND

The SPE OGA, originally designated the LFSPE Oxygen Generation Subsystem, was delivered to Boeing Aerospace and NASA/MSFC in April 1990 as part of the Space Station Freedom Environmental Control and Life Support Systems (ECLSS) Technology Demonstration Program. The system was designed to safely and efficiently generate oxygen and hydrogen gas using a 12-cell liquid feed SPE water electrolyzer. Two distinct generation levels were specified and designed into the system: NORMAL and EMERGENCY. With the system in the NORMAL configuration, the oxygen generation rate was set for 11.12 lb_m/day, and for the EMERGENCY configuration, the rate was set for 14.72 lb_m/day. Oxygen and hydrogen gas were maintained at 200 and 160 psia, respectively, using a nitrogen reference system operating at a pressure of approximately 230 psia. The oxygen could be delivered to either a low pressure storage system or distribution bus, or delivered directly to the cabin atmosphere, while the delivery of hydrogen could be diverted to either a CO_2 reduction system or a waste gas vent. The system was designed to use product water from the hygiene water processor as feed stock for the electrolysis process.

Performance testing of the LFSPE commenced in June 1990 in Building 4755 at NASA/MSFC. However, due to operational difficulties experienced by the system, and due to a reallocation of funding, the LFSPE only accumulated approximately 37 hours of test time. A second test program initiated in November 1990 saw the system operate for 529 hours: 169 hours with DI water; 270 hours with product water from a reverse osmosis system processing shower water; and 90 hours with DI water at the conclusion of the test program. The system operated for approximately 515 hours at the EMERGENCY oxygen generation rate, exhausting product gases at ambient pressure.

During the conduct of the two test programs at NASA/MSFC, the LFSPE experienced operational deficiencies that occasionally resulted in improper operation of the system and, in some cases, unscheduled test shutdowns. The issues identified as either problems or areas for concern were:

- Water carry-over from the hydrogen phase separator during start-up transient conditions
- Rising cell potentials while operating the system with water from the RO water processor
- Inadequate priming of the recirculation water loop pump
- Inaccurate flow sensor readings of the recirculating water loop
- Inadequate heat rejection from the recirculating water loop heat exchanger due to higher than expected cell potentials
- Failure of the three-way solenoid valves which divert the flow of generated gas to either a delivery or vent interface
- Blistering of hydrophobic membrane material in the oxygen phase separator, inhibiting gas transport
- Frequent alarm conditions triggered by the hydrogen sense cell of the hydrogen phase separator assembly
- Failed electrical contactor for the 4-way ball valve, resulting in incomplete valve travel

- Failed current control isolation board, resulting in reduced current to the electrolysis module and hence reduced gas output

During 1994, NASA/MSFC contacted Hamilton Standard to discuss a refurbishment program for the LFSPE that would address and correct the above listed deficiencies, and would incorporate design changes to the system hardware and software to address the most recent ISSA configuration. Specifically, the requirements changes that bore the largest impact on the system design were:

- Generation of oxygen while on the light side of the space station orbit
- Variable oxygen generation rates (7.4 lb_m/day nominal; rate to be variable $\pm$ 10%)
- Space station nitrogen interface reduced to 100 psia, maximum

Hamilton Standard proposed a refurbishment program to ION Electronics in April 1994. The goals of the program were to develop an SPE oxygen generator assembly that incorporated the design changes necessary to reflect the requirements for the ISSA, and to demonstrate flawless performance of the system during all aspects of operation. A contract to perform activities pursuant to the stated goals was awarded by ION in May 1994. The major elements of the program included:

- Conduct a baseline test of the as-received system to determine the status of key system components
- Refurbish the system to incorporate design changes necessary to correct system deficiencies, and provide variable oxygen generation rates and cyclic system operation
- Test the effectiveness of the design changes
- Provide field support of the unit once returned to NASA/MSFC

3.0 BASELINE TEST PROGRAM

A baseline test program of the returned LFSPE Oxygen Generation Subsystem was completed in September 1994. The objective of the baseline test was to note the performance of key system components, in particular the electrolysis cell stack, the oxygen and hydrogen phase separator assemblies, and the fan/heat exchanger assembly prior to system refurbishment. A copy of the master test plan for baseline testing of the unit is included as Appendix A. A copy of the test data from the baseline test is also included in the referenced appendix.

The system operated for 56.9 hours in the Process state, with 39 hours at the NORMAL rate (11.12 lb_m/day oxygen), and 17.9 hours at the EMERGENCY rate (14.72 lb_m/day oxygen). In general, the results from the baseline test program were comparable to those observed during the last test program conducted by NASA/MSFC in December 1990. Specifically:

- Water carry-over in the hydrogen phase separator was observed during start-up transient conditions. The typical volume of water observed during start-up was 30 - 50 ml.
- The recirculating water loop experienced pump priming problems during system start-up and shutdown depressurization transient conditions. In addition, the recirculating water loop bellows tank would occasionally expand to the first shutdown switch once gas generation had begun.
- The average cell potential for the 12-cell electrolysis stack operating at a current of 79 amps (Emergency oxygen generation rate) and a water exit temperature of 120°F was approximately 1.87-1.88 Vdc for both this and the previous test program. In addition, the performance of the fan/heat exchanger assembly was satisfactory for the duration of this test program as it was for the NASA/MSFC test program once testing with product water from the RO water processor was discontinued.
- The hydrogen sense cell alarm triggered a number of times during system start-up. Diagnostic testing of the stripper cells and sense

cell circuits revealed that the stripper cell power supply or its control circuit occasionally malfunctioned, resulting in the delivery of hydrogen-saturated water to the sense cell. A separate power supply was installed in the power supply cart for the duration of this test program, bypassing the original supply and control circuit. In addition, the shutdown associated with high sense cell currents was bypassed.

A number of minor discrepancies were also observed during the conduct of the test program, including low water feed rates from the feed pump resulting in a system shutdown due to a low level in the recirculation water loop bellows accumulator and BITE shutdowns of the process controller while changing setpoints. The discrepancies were logged in the test plan for future action once the refurbishment activity was underway.

4.0 SYSTEM REFURBISHMENT

Refurbishment of the OGA began in September 1994 at the conclusion of the baseline test program. The entire system was disassembled to the component level, with each item separately bagged to preserve its cleanliness. A summary of the refurbishment activities is presented below. A detailed description of the refurbished system and a narrative describing system operation are included as sections 4.11 and 4.12, respectively.

4.1 Hydrogen Phase Separator Refurbishment

The original hydrogen phase separator assembly employed a single hydrophilic membrane to effect the bulk fluid separation. However, during system start-up, water would become entrained in the gas outlet stream and would subsequently be delivered to the downstream hydrogen system. As the hydrogen generation pressure increased, the amount of water being carried over decreased until no water was present. Since the system achieved full production output in only a few minutes, the carry-over was attributed to the high gas velocities present in the hydrogen phase separator during this transient condition, resulting in inadequate contact time with the hydrophilic membrane.

The hydrogen phase separator assembly was modified to incorporate dual hydrophilic-hydrophobic cavities, and successfully demonstrated proper fluid separation at all operating conditions of the revised system. A schematic of the refurbished hydrogen phase separator assembly is included as Figure 4.1-1. Water is transported across the hydrophilic membranes to the electrochemical hydrogen pumps, while the hydrogen gas flows through the hydrophobic membranes to the hydrogen pressure control system. A detailed description of the operation of this device is included in the System Description section of this report.

4.2 Electrolysis Cell Stack Refurbishment

During the November 1990 test program at NASA/MSFC, the LFSPE was tested for a total of 529 hours. The test was divided into three modules:

- 169 hour test with DI water
- 270 hour test with product water from a reverse osmosis system processing shower water
- 90 hour test with DI water

The first 169 hours of the test program saw a steady average cell potential for the 12-cell electrolyzer. However, during the 270 hour test with processed hygiene water, the average cell potential rose steadily. Eventually the average cell potential exceeded the design point of the heat rejection system of the LFSPE, and the recirculating water loop temperature began to increase above its 120°F operating point. An additional fan was located in the vicinity of the system fan/heat exchanger assembly to provide additional cooling capacity. Once the water feed was returned to DI water, the average cell potential began to decrease steadily, and continued to decrease for the remainder of the 90 hour DI water test. In addition, the recirculating water loop returned to its original design operating point of 115-120°F.

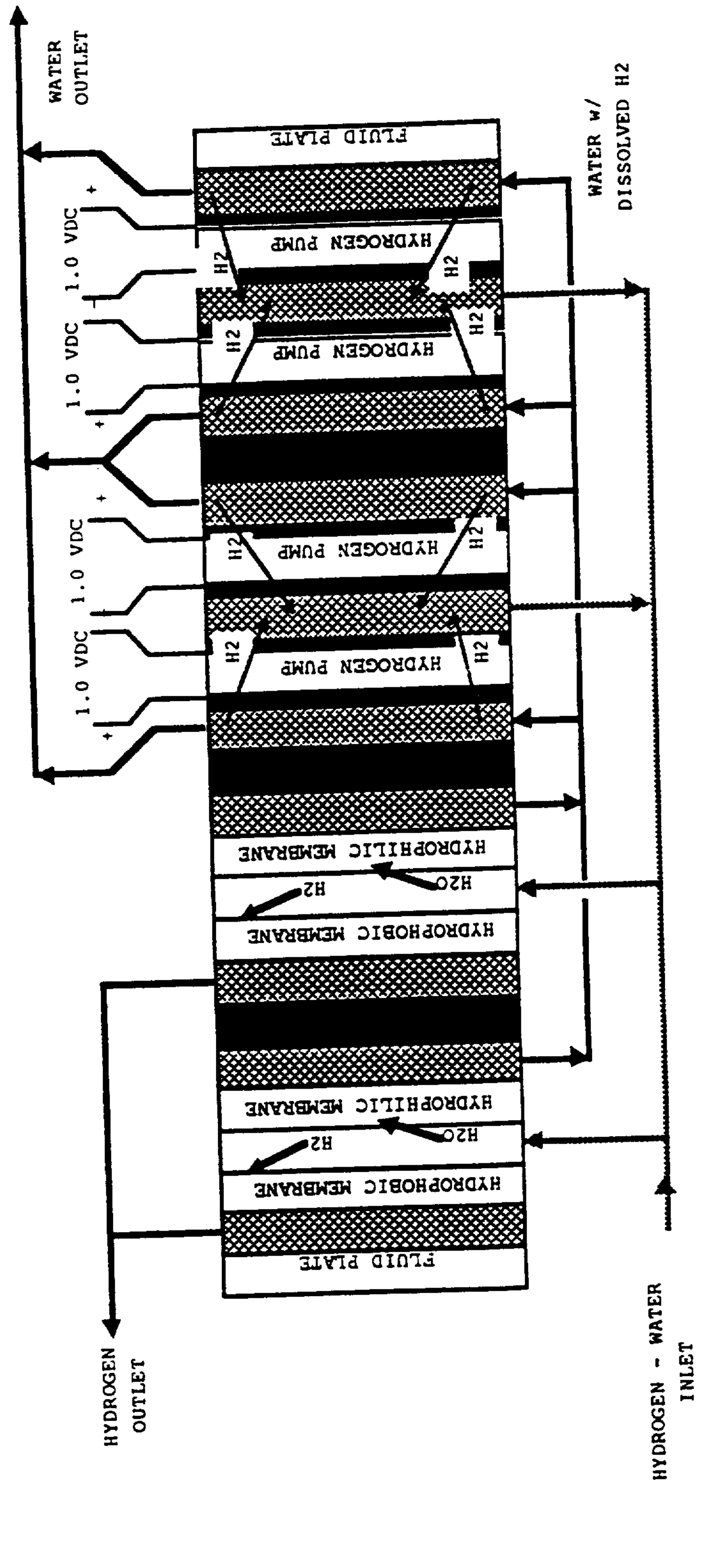


FIGURE 4.1-1
HYDROGEN PHASE SEPARATOR

At the conclusion of the test program, three theories were proposed to explain the increase in the average cell potential:

i) Relaxation of the cell stack preload, resulting in higher screen to cell membrane contact resistance.

ii) Heavy metal ion contamination of the solid polymer ion exchange membrane.

iii) Organic contamination of the cell anode, resulting in a higher cell polarization.

The first explanation was eliminated from consideration due to the fact the cell potentials began to recover during subsequent testing with DI water. The second explanation was also considered unlikely since: the water analyses of the feed water did not indicate any heavy metal ion contamination; the conductivity sensor in the subsystem did not detect any breakthrough in the deionizer bed, and; because heavy metal ion contamination is essentially irreversible, the cell potentials would not have recovered when the feed stock was changed to DI water. The latter explanation, organic contamination, was considered the most likely scenario. Organic contamination would result in a masking of the anode of the electrolysis cell, resulting in increasing cell operating potential as the contamination continued to build. The anode catalyst is capable of oxidizing smaller organic molecules, resulting in the evolution of CO_2 and H_2O, but has a more difficult time with the larger organic molecules. Eventually, the entire anode surface will reach some equilibrium level of contamination. At that point, an equilibrium potential will be established, but at a higher level. This theory was supported by the fact that, when the feed stock was changed back to DI water, the cell potentials began to decrease, indicating oxidation of and a decrease in the amount of material on the anode surface of the cells.

During 1991, an IR&D program was initiated in an attempt to understand these test results. Electrolysis cells were challenged with a variety of different feed waters:

i) An ersatz recipe that duplicated the product water from the Space Station Freedom hygiene water processor.
ii) Actual product water from the Space Station Predevelopment hygiene water processor, processing shower and laundry water.
iii) Water solutions containing the maximum concentrations of contaminant species from water analyses of the feed water used during the 270 hour test program (see Table 4.2-I).

The test programs with the first two water feeds resulted in stable cell operating potentials. However, while testing electrolysis cells with water containing ammonia and Igepon TC-42 at the concentration levels listed in the table, the cell potential rose at a rate similar to what was observed during the 1990 test program. Testing of these cells continued until an equilibrium potential was reached. The feed water to these cells was then converted to DI water, and the cell potential began to decrease steadily as it had during the 1990 test program. As a result, it was concluded that the cause for the steadily increasing cell potentials observed during the 1990 test program was contamination of the feed water with ammonia and Igepon TC-42. The IR&D program also indicated that the cells could operate with these contaminants present in the feed water; the penalty, however, would be a higher, but reversible, cell potential.

A new 18-cell electrolysis cell stack was built as part of the SPE OGA refurbishment program. The number of cells increased to 18 in order for the new module operating at ambient temperature to maintain the same overall thermal efficiency as a 12-cell stack operating at 120°F. The cell stack was assembled using new hardware, including all frames, screen assemblies and end plates. Since the feed water for the OGA has been changed from hygiene quality water to potable water, it is anticipated that the performance of the electrolysis cells should be stable, resulting in essentially flat cell potential profiles as was witnessed during the 740 hour test program.

TABLE 4.2-I
1990 LFSPE OXYGEN GENERATION SUBSYSTEM FEED WATER ANALYSES *

COMPONENT	CONCENTRATION (PPM)
Zinc	.003
Sodium	1.33
Calcium	.031
Iron	.391
Chromium	.268
Cadmium	.083
Manganese	.386
Potassium	24.3
Chloride	283
Sulfate	288
Fluoride	9.7
Nitrate	.53
Ethanol	1.56
Toluene	23
Triiodomethane	14
Methanol	1.19
Ammonia	12.9
Detergent (Igepon TC-42)	1.18

* Source: Boeing Test Laboratories
Concentration level represents the highest recorded by the Boeing laboratory for the species indicated

4.3 Recirculating Water Loop Refurbishment

The recirculating water loop was modified to: correct inadequate pump priming at system start-up; correct loss of pump prime during system shutdown; incorporate a thermal flow switch to monitor the water flow rate to the stack, and; install a liquid-to-liquid heat exchanger to reject waste heat from the water electrolysis process.

4.3.1 Pump priming

The initial configuration of the LFSPE Oxygen Generation Subsystem included a deionizing bed and a ten-inch cartridge filter in the recirculating water loop, and an in-stack oxygen phase separator assembly. However, since the system operated at 200 psia, during system depressurization the amount of oxygen evolved from the water loop nearly exceeded the volume expansion capability of the metal bellows accumulator. In order to reduce the volume of the water loop, both the deionizer bed and the filter were removed and replaced with jumpers. In addition, since the in-stack oxygen phase separator had failed during in-process testing at Hamilton Standard, a separate unit had to be installed on the outside of the package. Hence, the packaging of components in the system was never optimized, resulting in pockets of gas trapped in various parts of the recirculating water loop. A separate purge routine was implemented to force gas out of the loop to allow the pump to prime, but its performance was marginal.

In order to ensure adequate priming of the pump during all aspects of system operation, a number of changes to the recirculating water loop were implemented. First, the operating pressure of the loop was reduced from 200 psia to near ambient in order to reduce the amount of oxygen dissolved in the water that would subsequently evolve during a system shutdown. Second, the components in the loop were packaged closely together to minimize loop volume and eliminate potential gas traps wherever practical. And finally, the recirculation water loop metal bellows accumulator was also modified to operate with a fixed nitrogen charge such that the pump inlet is always maintained above ambient pressure. Testing of the refurbished system demonstrated correct pump priming even after a loss of power shutdown.

4.3.2 Flow sensing

A flow sensor is included in the water recirculation loop to ensure power is not applied to the cell stack when there is no water flow. The system originally incorporated a Teflon turbine flowmeter; however, after approximately 100 hours of operation the Teflon bearing failed resulting in erratic readings from the sensor. The sensor was returned to the vendor and refurbished with a harder bearing and shaft material; however, the sensor continued to provide erratic readings. As a result, the flow sensor was removed from the system, and a pressure sensor was installed just upstream of the electrolysis module. This sensor, in conjunction with a pressure sensor already installed downstream of the electrolysis module, was used to calculate a pressure drop across the module. The pressure drop data was then used to correlate a water flow rate through the module. However, since the characteristics of the two-phase flow downstream of the module varied with pressure, temperature and gas generation rate, the measurement was somewhat crude and inaccurate.

In order to improve the reliability of the recirculating water flow measurement, a thermal flow switch was installed upstream of the electrolysis module. The flow switch determines whether a fluid is flowing at the preset rate by sensing the temperature difference between two precision resistors mounted within the housing of the flow monitor. One resistor is located in the sensor tip, closest to the flowing fluid and heated to a temperature that is a few degrees higher than the temperature of the fluid. The second resistor is located such that it is affected only by the temperature of the fluid. Cooling of the heated resistor is a function of how fast heat is conducted away by the flowing medium. Therefore, the difference in temperature between the two resistors provides a measurement of fluid velocity past the sensor probe.

The controller for the flow sensor is located inside the Electrical Interface Box (EIB) which is mounted to the side of the system package. Potentiometers on the controller allow the user to adjust the setpoint over a wide range of fluid velocities. For the refurbished OGA, the controller was set such that a flow rate of approximately 30% of normal, or 0.2 GPM, for a period of 10 seconds would trigger an automatic shutdown of the system and provide a low flow message to the user. The flow switch performance was satisfactory throughout the 743 hour test program following system refurbishment. The loss of recirculating water flow events recorded by the flow switch during the test program were not sensor related, but were in fact the result of reduced flow conditions caused by 1-g gas traps present in the system hardware (see section 5.2).

4.3.3 Liquid-to-liquid heat exchanger

With the oxygen operating pressure reduced to near-ambient conditions, the oxygen/water mixture leaving the cell stack must be cooled to at or below ambient temperature to assure that moisture condensation does not occur in the oxygen delivery plumbing. Heat rejection in the original system was provided by an ambient air cooled heat exchanger in the recirculating water loop located upstream of the cell stack where there was no undissolved oxygen flowing. In order to cool the recirculating water loop at this location in the refurbished system, a heat sink much lower than the ambient air temperature must be used. This would also require that the cell stack operate at very low temperatures, reducing its efficiency or making it necessary to add more cells.

The refurbished system employs a liquid-to-liquid heat exchanger located downstream of the cell stack where there is a mixture of gaseous oxygen and recirculating water. The heat exchanger uses the 65°F vehicle coolant loop as the heat sink to reduce the delivered oxygen temperature to less than 70°F at the maximum electrolysis rate during light side operation and with all 18 electrolysis cells operating at their maximum potential of 2.5 Vdc. The new heat exchanger capacity is in excess of 800 watts, almost 3 times the capacity of the original air-cooled heat exchanger assembly. At a coolant flow rate of

500 lb_m/hr, the pressure drop on the shell side of the heat exchanger is less than 1 psid. Performance of the heat exchanger through the duration of the 743 hour test program was satisfactory, with no condensation observed in the oxygen delivery line.

4.4 3-way Solenoid Valve Refurbishment

The original system employed 3-way solenoid valves at the oxygen and hydrogen outlets to divert the flow of gas to either a storage system or vent interface. However, during testing at Hamilton Standard and NASA/MSFC, these valves failed due to overheated coils. When the solenoids were originally specified by the valve supplier, he neglected to inform the solenoid supplier that the coils would be enclosed in a stainless steel housing. As a result, the coils operated at a much higher temperature than their design point and eventually burned out.

The valve supplier replaced the burned coils and provided a driver circuit for each of the valves to prevent overheating of the solenoid coils. The driver circuit allows full power to the solenoid for .375 to .750 seconds upon initial application of voltage at the input terminals. The voltage then automatically drops to approximately 50% of full voltage, resulting in a hold-in current of approximately 25% power until the input voltage is removed. Voltage (and consequently power) reduction is achieved by pulse width modulating the input signal. The driver circuit includes a full wave rectifier, AC line voltage transient protection, and solenoid transient suppression. With the refurbished system, only one valve is required, that being at the hydrogen outlet. The 3-way valve allows the user to divert hydrogen flow to a downstream CO_2 reduction system in the event the OGA is included in an air revitalization integrated test program, or to a laboratory vent where the nitrogen purge gas at system start-up and shutdown is also vented. During the recently completed test program at Hamilton Standard, the refurbished valve and driver circuit operated for approximately 600 hours without failure, whereas the valve without a driver circuit typically failed after 50-100 hours of operation.

4.5 Oxygen Phase Separator Refurbishment

During in-process testing of the original Technology Demonstration Oxygen Generation Subsystem, the oxygen phase separator assembled as part of the electrolysis cell stack experienced a failure due to an inability to transport gas across the hydrophobic membrane. The results of a separate test program of hydrophobic membranes indicated that the material was susceptible to blistering under certain conditions. Once formed, the blisters hindered the transport of gas across the membrane. It was theorized and later confirmed by test that water vapor condensing within the microporous structure of the membrane caused the blisters to be formed. In order to alleviate this problem, the oxygen phase separator was redesigned so that the gas side of the hydrophobic membrane was kept warmer relative to the two-phase side, thereby preventing condensation. Rather than disassembling the failed oxygen phase separator from the cell stack-manifold assembly, an external phase separator was built and installed into the unit, with the failed unit bypassed with additional plumbing.

During refurbishment of the OGA, both the external and the original in-stack oxygen phase separator were disassembled. As originally suspected, the in-stack phase separator, which had used what was later determined to be blister-prone "S" material, had evidence of blistering over approximately 50% of its surface. The external phase separator, which used the less susceptible "X" material coupled with favorable differential temperature characteristics, exhibited no signs of blistering. As a result, the phase separator hardware was rinsed with clean DI water and reassembled with new hydrophilic membranes. The hydrophobic membrane from the external phase separator assembly was also rinsed with clean DI water and returned to the assembly. Performance of the oxygen phase separator assembly was satisfactory during all aspects of system operation, including transitioning from standby to full production back to standby.

4.6 Hydrogen Sense Cell Alarms

During the 529 hour test program at NASA/MSFC and subsequent baseline testing at Hamilton Standard, the hydrogen sense cell triggered numerous shutdowns due to high cell currents. Two causes for the shutdowns were identified:

1) A malfunctioning power supply and/or control circuit for the four stripper cells

2) Formation of a hydrogen bubble in the water outlet header of the separator assembly and subsequent migration of this bubble to the sense cell compartment

In the first case, if the four stripper cells failed to charge properly, then hydrogen-saturated water would be delivered to the sense cell, triggering an alarm condition. This condition appeared to occur on a number of occasions when it seemed the power supply was unable to adequately charge the four stripper cells. It was later determined that the circuit controlling the charging rate for the stripper cells had malfunctioned. The circuit was repaired, and correct operation of the power supply, control circuit and hydrogen pump cells was subsequently demonstrated as part of this refurbishment effort.

The second case, that of bubble migration, occurred on several occasions when the four stripper cells appeared to be operating within normal parameters. However, this became a nonissue when, after completing a revision to the Failure Mode and Effects Analysis (FMEA) it was determined that sufficient fault detection had already been incorporated into the system and therefore a sense cell was not required in the assembly. During the refurbishment of the hydrogen phase separator, the sense cell was removed from the assembly.

4.7 4-way Ball Valve Mechanical Contactor

Early in the test program at NASA/MSFC the LFSPE experienced a number of shutdowns associated with improper hydrogen phase separator performance and improper feed water bellows fill rates. After performing a number of diagnostic tests it was determined that the mechanical contactor driving the 4-way ball valve had been seriously pitted due to current levels higher than the rating of the contacts. The contactor was subsequently replaced with a unit having contacts rated at 6 amps, the in-rush current rating of the valve. The valve performance was satisfactory throughout the remainder of the test program.

Since the contactor rating was identical to the valve in-rush current, additional margin on the contact rating was required to prevent a reoccurrence of the previous failure. A contactor with a 10 amps rating was installed and performed satisfactorily throughout the 743 hour test program.

4.8 Current Control Isolation Board

The current control isolation board failed to provide the correct signal to the electrolysis power supplies while the system was set at the EMERGENCY oxygen production level during the NASA/MSFC test program. As a result, the board had to be modified during the test program to include a potentiostat to fine tune the current level to the electrolysis cell stack. In addition, it was believed that the current control signal may have been drifting due to thermal variations within the power supply cabinet. However, diagnostic testing of the circuit at the conclusion of the test program revealed that the board had been assembled incorrectly and was therefore clamping the control signal to a value lower than what was required to command the power supplies at the EMERGENCY generation level. The error in the control isolation board was corrected and the board reinstalled into the power supply cabinet. The board functioned properly during the recently completed test program.

4.9 Cyclic & Variable Oxygen Generation

Changes to the requirements for the OGA for the ISSA dictate that operation of the unit be limited to the daylight side of the orbit only and that the oxygen production rate be variable. Hamilton Standard revised the control software to allow the user to input light side/dark side time duration along with the total oxygen production requirement on a per day basis. The inputs to the control software can be made via the Modify/View Operation screen available on the Command and Display Unit (CDU) or host system via the RS-232 port and are described in detail in the Operations Manual. Based on these inputs the system software calculates the oxygen generation rate required during the system "on" times. During dark side operation, the system software reduces the current to the module to a trickle value of 1 amp, sufficient to maintain a charge on the electrolysis cells. The recirculating water pump, feed water management and system instrumentation remain active during this standby period. Full production resumes at the conclusion of the dark period.

The SPE OGA control software allows the user to select a daily oxygen production rate of 6.66 to 8.14 lb_m/day (7.40 lb_m/day $\pm$ 10%), LIGHT side duration of 50 - 60 minutes, and DARK side duration of 40 - 30 minutes. When transitioning from LIGHT to DARK, the current level to the electrolysis cell stack instantaneously drops from its generation level to the standby level of 1 amp. Once the duration of the DARK side has expired, the current to the electrolysis module begins to ramp up, increasing 5 amps every 5 seconds until the required current for the requested production level is attained. Typically, the time to reach full output is on the order of 40 seconds. The ramping rate is limited to the performance of the differential back pressure regulator controlling the hydrogen phase separator. Increasing the current ramping rate resulted in excessive differential pressures across the hydrophilic membranes in the phase separator. The high differential pressures can be attributed to the fact that, while the hydrogen pressure which provides the reference to the regulator returns to its full production level in the manner of a few seconds, the water pressure typically lags thereby causing the high differential pressure. If faster ramping rates are required for the space station, the regulator can be replaced with a unit offering a faster response, the water volume on the hydrogen phase separator can be reduced, or a combination of both can be implemented.

During the acceptance test program, the SPE OGA was operated at the minimum, nominal, and maximum daily oxygen production schedule and at various LIGHT/DARK configurations. Gas production rates were verified with a wet test meter. Detailed test results are included in the Master Test Plan included in Appendix B of this report.

4.10 Nitrogen Interface Pressure

The original oxygen generation subsystem was designed to safely generate oxygen at pressures up to 200 psia and hydrogen at pressures up to 160 psia. Careful control of the generated gas pressures was maintained by a nitrogen reference system operating approximately 20-30 psid above oxygen pressure such that a pressure hierarchy of nitrogen over oxygen over hydrogen was always maintained. With the electrolysis module operating at a maximum temperature of 120°F, expanding the product gases to the pressure levels originally specified for Space Station Freedom provided oxygen and hydrogen at their required dew points. However, with the reduction of the nitrogen interface to 100 psia maximum, the hardware and software for the pressure control system had to be modified to reflect lower operating pressures.

The system hardware was modified to generate oxygen at near ambient pressure for delivery directly to the crew cabin of the space station. Humidity control of the oxygen is attained by incorporating a liquid-to-liquid heat exchanger immediately upstream of the oxygen-water phase separator, and the drop in gas pressure when exhausting oxygen from the phase separator to the cabin. The heat exchanger was sized to operate from the vehicle 65°F coolant loop. The nitrogen serves as a purge gas for the hydrogen circuit during start-up and shutdown transients, and as a reference system controlling hydrogen pressure to 25 psig minimum. Operating the cell stack at near ambient temperature, coupled with the slightly elevated operating pressure, maintains the hydrogen free of any condensate.

The system software was extensively modified to incorporate lower pressure operation. Reference pressure measurements between nitrogen and oxygen were eliminated, and those between nitrogen and hydrogen were replaced with direct pressure readings. In addition, the redundancy required for nitrogen control of the oxygen system was eliminated with the drop in oxygen pressure to ambient. Control setpoints for nitrogen, as well as shutdown levels associated with fluid over and under pressure, were revised to reflect the decrease in nitrogen pressure. The hardware and software revisions to the nitrogen reference system performed satisfactorily during the conduct of the acceptance test program, demonstrating the capability of the refurbished SPE OGA to operate from the 100 psia ISSA nitrogen interface.

4.11 System Description

The refurbished SPE Oxygen Generator Assembly has been designed to safely produce oxygen and hydrogen gas from the electrolysis of water. The oxygen gas is generated and delivered at ambient pressure directly to the environment, while the hydrogen is generated at slightly elevated pressure for possible delivery to a CO_2 reduction system. A schematic of the fluid system is presented in Figure 4.11-1. The SPE OGA includes all valves, regulators, sensors and other controls for safe operation of the system.

The cell stack is a liquid anode feed water electrolyzer consisting of 18 SPE water electrolysis cells assembled in a bipolar arrangement between two compression end plates. A simplified schematic of a liquid anode feed cell is depicted in Figure 4.11-2. In the electrolysis process, liquid water is fed to the anode, or oxygen compartment, where it is electrolyzed to produce gaseous oxygen, hydrogen ions, and electrons. The hydrogen ions, or protons, are transported across the ion exchange membrane and the electrons travel through the external electrical circuit to the cathode. These protons are fully hydrated and deliver water to the cathode side of the membrane. The electrons combine with the protons to form gaseous hydrogen at the cathode. Excess water is pumped through the anode compartment to remove heat generated by the electrolysis process.

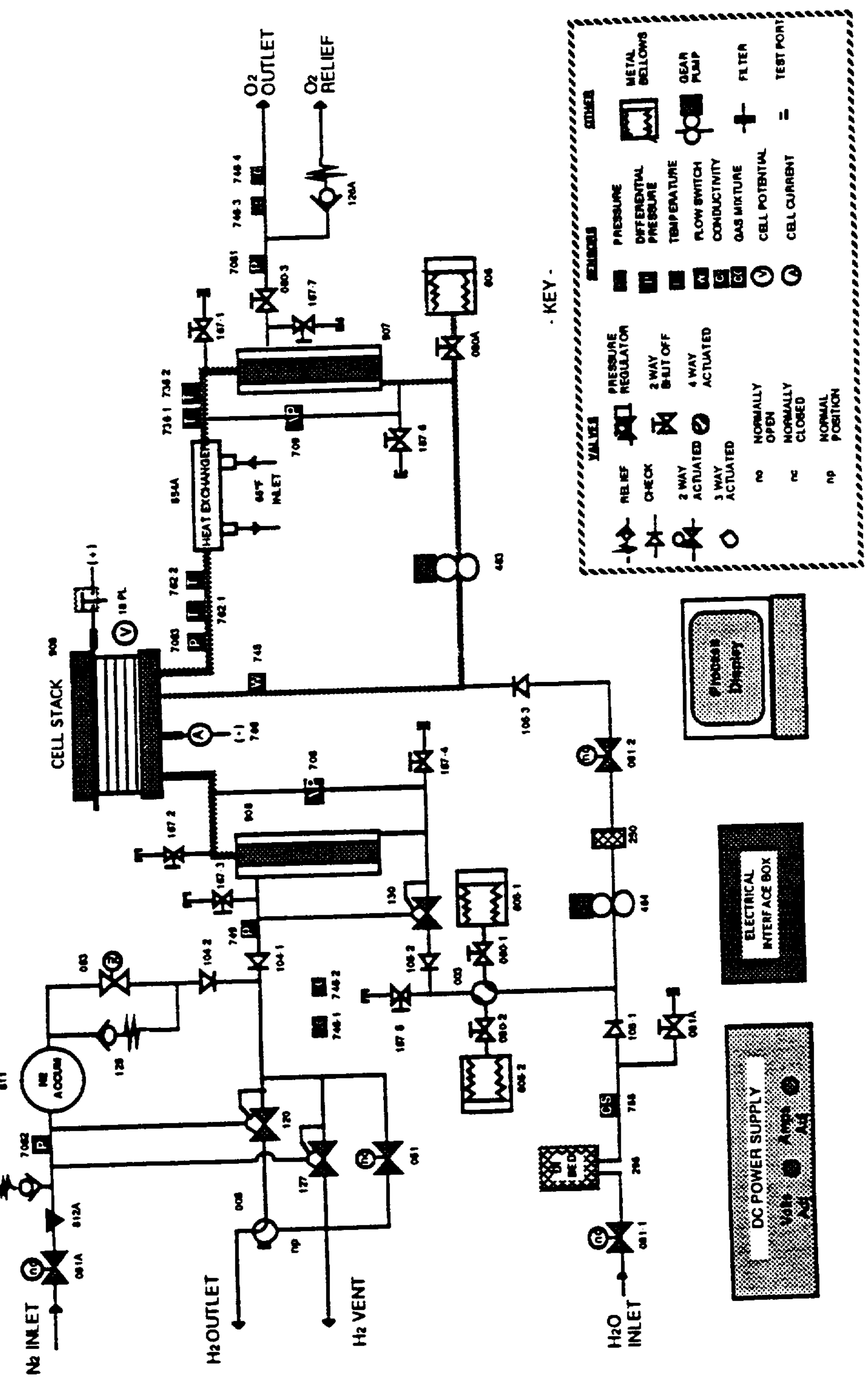


FIGURE 4.11-1
SPE OXYGEN GENERATOR ASSEMBLY
FLUID SCHEMATIC

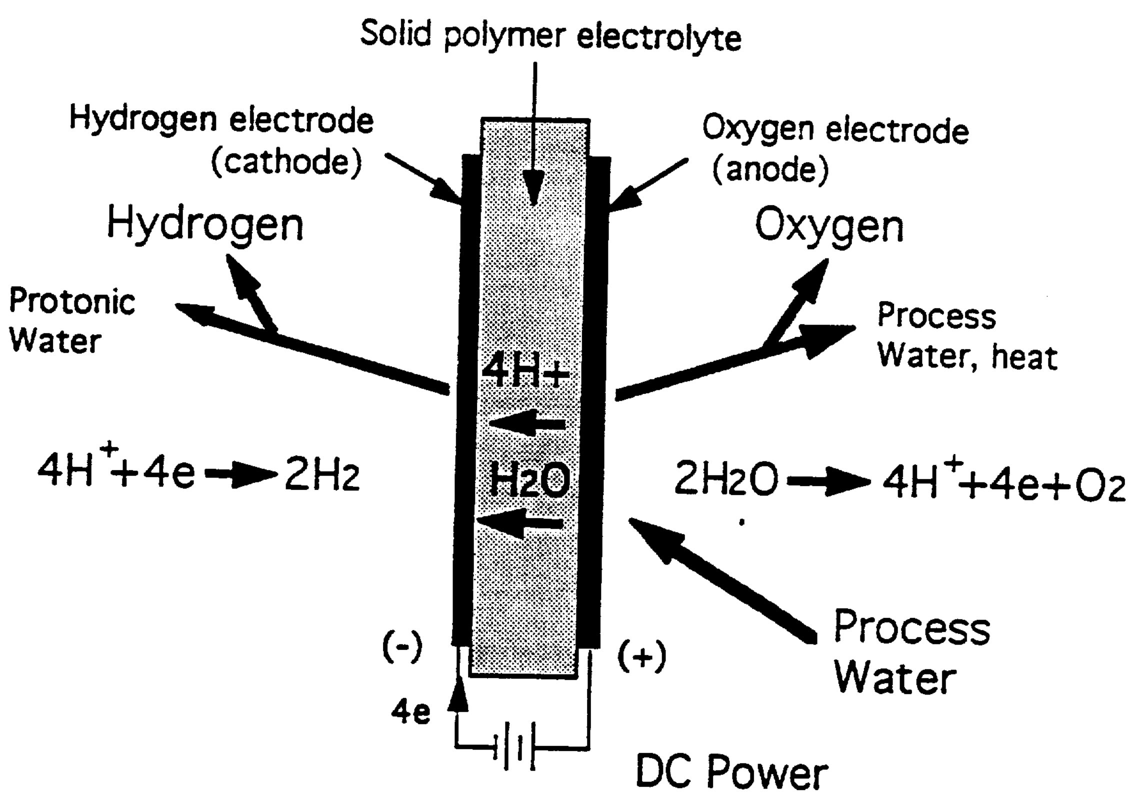


FIGURE 4.11-2
LIQUID ANODE FEED
SPE WATER ELECTROLYSIS CELL

Oxygen and hydrogen are generated at a stoichiometric ratio and at a rate proportional to the cell current. In order to satisfy the nominal daily oxygen requirement of 7.4 lb_m/day with a light side/dark side duty cycle of 53 minutes on/37 minutes off, the SPE OGA will generate oxygen at an instantaneous rate of 12.57 lb_m/day. Control of the daily oxygen production requirement, as well as the light side/dark side duty cycle, resides in the system controller and can be accessed through the Modify/View Operation screen of the Command & Display Unit. Additional control is also afforded to the host computer via the RS-232 data bus as defined in the Operations Manual.

The oxygen-water stream exiting the electrolysis cell stack enters a shell and tube liquid-to-liquid heat exchanger (Item 554A) to reject waste heat from the electrolysis reaction and to reduce the dew point of the oxygen gas. The heat exchanger is designed to operate using 65°F water at a flow rate of 500 lb_m/hr as the coolant. Temperature sensors located at the inlet (Items 736-1 and 736-2) and exit (Items 762-1 and 762-2) of the heat exchanger monitor its performance.

The two-phase stream enters the oxygen/water phase separator (Item 907) to deliver water free oxygen to the oxygen delivery system while oxygen free water is returned to the water recirculation loop. Figure 4.11-3 depicts the components of the oxygen/water phase separator. The two-phase mixture is separated in two stages: in the first stage are located six hydrophilic membranes that allow water to wick through but, because of their high bubble point, the membranes will not allow gas to flow through. The fluid exiting the two-phase cavity is mostly gas with a small amount of water carry-over. The fluid is directed to the second stage, or "polishing" section of the separator. The polishing section contains a hydrophilic and hydrophobic membrane, where the remaining water is returned to the water recirculation loop. The oxygen gas is delivered to the oxygen delivery system through the hydrophobic membrane. Because the hydrophobic membrane has a high water intrusion pressure (an attribute similar to the bubble point of a hydrophilic membrane), the oxygen gas is delivered free of any liquid water. A differential pressure sensor (Item 709) monitors the performance of the

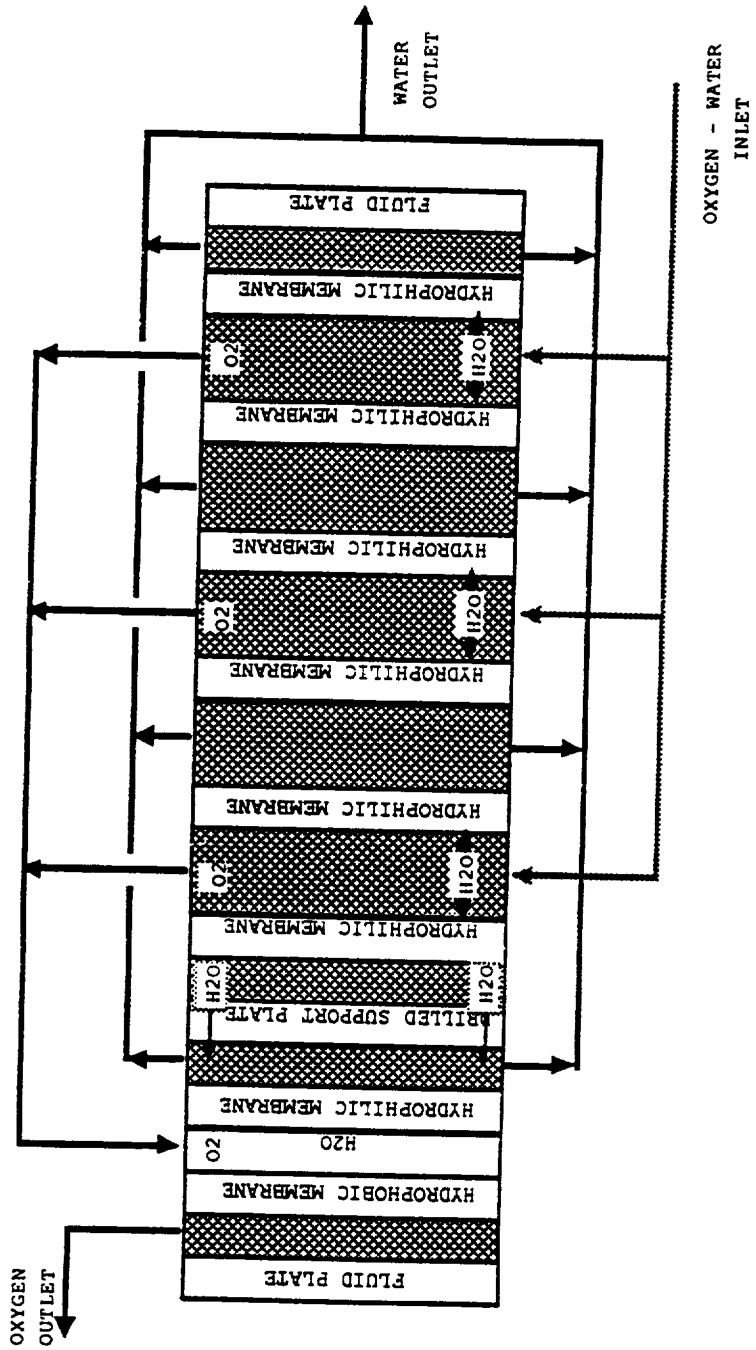


FIGURE 4.11-3
OXYGEN PHASE SEPARATOR

hydrophilic elements of the phase separator, and initiates a shutdown should the pressure drop exceed a specified value (typically, less than half of the membrane bubble point). The operating pressure of the water recirculation loop is lower than the water intrusion pressure of the hydrophobic membrane under all operating conditions. Water exiting the oxygen-water phase separator is returned to the electrolysis cell stack by a gear pump driven by a brushless DC motor (Item 463). Water flow to the module is monitored by a flow switch (Item 745) located immediately upstream of the cell stack. The flow switch will remove current to the module and initiate a system shutdown should the water recirculation rate drop below a predetermined value.

A metal bellows accumulator (Item 606) which serves as a feed tank for the electrolysis cell stack and an expansion volume for the water recirculation loop during the system start-up transient is located immediately downstream of the oxygen-water phase separator. As a feed tank, the metal bellows stroke is minimal, operating between approximately 10 and 15 cubic inches of volume. When the level in the tank falls below 10 cubic inches, the feed pump (Item 464) is activated until the tank attains a level of approximately 15 cubic inches at which point the feed pump is turned off. As an expansion volume, again the stroke of the bellows is minimal, with typical expansion values of 10 cubic inches of less. When the system is started the water recirculation loop is devoid of all gas. However, as power is applied to the electrolysis cell stack, the oxygen gas bubbles generated within the cell cavities cause an expansion in the volume of the loop, resulting in an expansion of the bellows tank. The bellows tank expansion continues until the gas bubbles reach the oxygen phase separator, at which point the bellows begins to recollapse to its normal operating range.

The oxygen gas produced in the SPE electrolyzer is free of hydrogen, with purities of 99.5% or greater typically measured. Since the SPE OGA has been designed to operate with hydrogen pressure always greater than oxygen pressure, redundant combustible gas sensors (Items 746-3 and 746-4) located at the oxygen outlet interface constantly monitor the oxygen for hydrogen and initiate a shutdown should the hydrogen level in the oxygen exceed 50% of the lower explosive limit (LEL). A pressure sensor (Item 7061) initiates a shutdown should an obstruction occur in the delivery line, and a relief valve (Item 126A) provides redundancy in the event of a failed pressure sensor.

The hydrogen-water exiting the cell stack is mostly hydrogen gas by volume with a small amount of liquid water present from protonic pumping in the ion exchange membrane. The hydrogen/water phase separator contains two cavities, each containing a hydrophilic and hydrophobic membrane, and is similar in design and operation to the polishing section of the oxygen/water phase separator. Figure 4.1-1 depicts the design of the hydrogen/water phase separator. The hydrogen gas passes through the hydrophobic membrane to the hydrogen valve manifold containing the pressure control system, and the water is delivered to the "stripper" section of the phase separator. The stripper section contains four electrochemical hydrogen pumps that remove dissolved hydrogen from the water before it is returned to the water recirculation loop. The electrochemical hydrogen pump uses an SPE membrane and electrode assembly similar to the electrolysis membrane and electrode assembly. The degassed water is subsequently delivered to one of two metal bellows accumulators (Items 605-1 and 605-2) after dropping in pressure through a negative bias back pressure regulator referenced to hydrogen (Item 130). A differential pressure sensor (Item 708) monitors the performance of the hydrophilic element of the phase separator and performs a similar function to its oxygen phase separator counterpart. In addition, the performance of the electrochemical hydrogen pumps is monitored by individual voltage and current sensors and initiate a shutdown of the system should the values for these parameters fall outside predetermined limits.

As stated previously, the water exiting from the separator is stored in one of two metal bellows accumulators (Items 605-1 and 605-2). Two tanks, in conjunction with the four-way ball valve (Item 003), are provided for fault isolation in the event of a failure of the hydrogen phase separator that is undetected by either the differential pressure sensor or the stripper cell voltage and current monitors. While water is being fed to one tank from the phase separator the second tank is providing water, as required, to the water recirculation loop via the feed water pump (Item 464). Employing two tanks in this manner ensures that hydrogen gas is not introduced into the system anode loop, where it would subsequently flow into the oxygen delivery system. As an additional back-up, redundant combustible gas sensors in the delivery system would detect hydrogen carry-over into the anode loop and initiate a system shutdown.

Hydrogen pressure control is maintained by a differential back pressure regulator referenced to nitrogen. Figure 4.11-4 shows the differential pressure control band. The primary hydrogen regulator (Item 120) maintains hydrogen operating pressure 25 psid below nitrogen. Hydrogen pressure control is monitored by a pressure sensor (Item 749); shutdown of the SPE OGA will occur if hydrogen pressure drifts above or below the normal band of the primary regulator. Mechanical backup for both high and low differential pressure is provided by the redundant differential back pressure regulator (Item 127) and relief valve (Item 125), respectively. If the primary regulator fails closed and either the hydrogen pressure sensor or controller fails to detect it, the redundant back pressure regulator will open to ensure nitrogen pressure is maintained above hydrogen. Conversely, should the primary regulator fail open and either the system instrumentation or controller fails to detect it, the nitrogen-hydrogen relief valve opens to introduce nitrogen into the hydrogen circuit to ensure hydrogen pressure is always maintained above oxygen pressure. A three-way solenoid valve (Item 005) at the regulator outlet directs flow to either the hydrogen outlet interface during normal processing, or to the vent interface during shutdown of the system.

As mentioned previously, nitrogen is used as a reference pressure for the hydrogen pressure control system. The nitrogen is also used as a purge gas during start-up and shutdown transient conditions: during start-up, the nitrogen purges any air from the hydrogen lines and, during shutdown, it purges hydrogen from the same lines. Nitrogen is introduced from the facility through a normally closed solenoid valve (Item 051A). A pressure sensor (Item 7062) monitors the nitrogen pressure and controls the operation of the solenoid valve. A nitrogen accumulator provides sufficient purge volume to safely and effectively purge the hydrogen circuit during start-up and shutdown. Purging of the hydrogen circuit is accomplished by removing

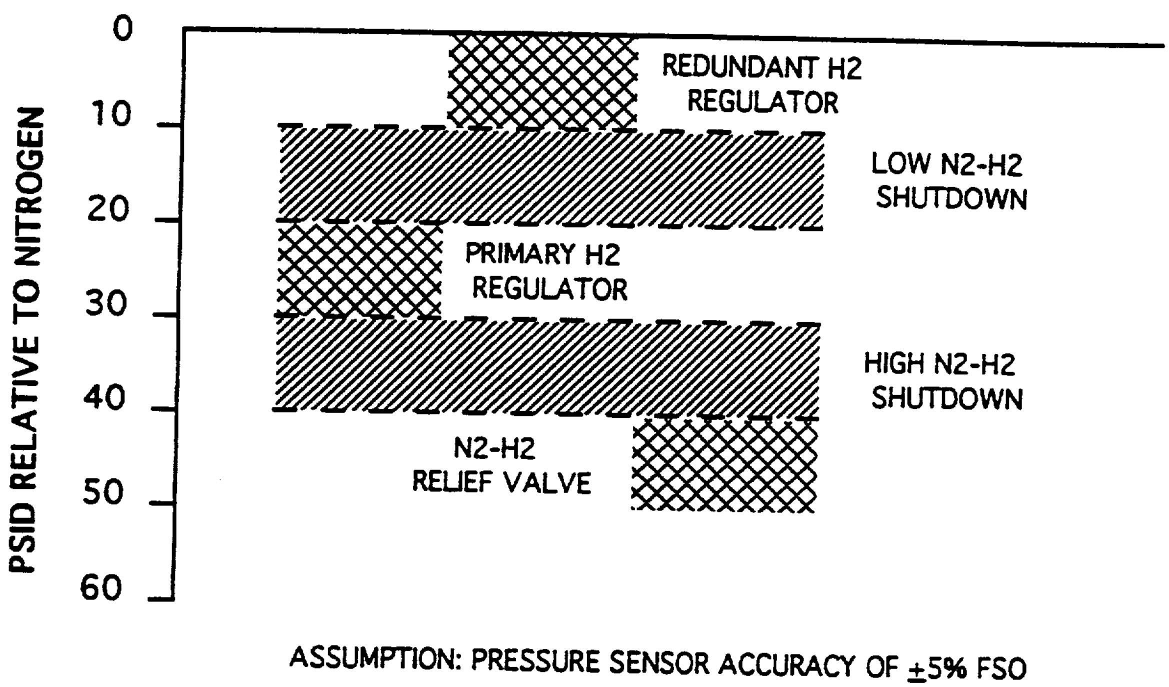


FIGURE 4.11-4
NITROGEN-HYDROGEN
PRESSURE CONTROL BANDS

power to the normally open solenoid valve (Item 053) located between the hydrogen and nitrogen circuit.

Feed water is provided to the SPE OGA from the facility through a normally closed solenoid valve (Item 081-1). Operation of this valve is controlled by the water level in the two feed water metal bellows accumulators (Items 605-1 and 605-2) and the position of the four-way ball valve between the two tanks (Item 003). The feed water is polished with a deionizer bed (Item 295) to ensure the water is free of any ionic contamination (cation and anion) that would be detrimental to cell life. A conductivity sensor (Item 755) located immediately downstream of the deionizer bed monitors water quality and performance of the deionizer bed and initiates a shutdown should the water conductivity exceed a specified value.

A listing of the parts used in the SPE Oxygen Generator Assembly processing package is included as Table 4.11-I.

4.12 System Operation

The SPE OGA is designed to accept control commands via the CDU or other suitable device. The operating modes available for the system include IMMEDIATE SHUTDOWN, OFF, ON, STANDBY, and MANUAL. Additional information concerning these modes of operation is provided in the Operations Manual.

Prior to starting the unit, the user should enter the oxygen production requirement and the LIGHT/DARK side duty cycle from the Modify/View Operation screen. If the OGA is to be operated in a cyclic manner, then the user must also select PERIODIC oxygen delivery from the Assembly Configuration screen. Once these tasks are completed, the user can then access the Mode Select screen and select the ON mode. The system will then transition to the ON mode PURGE state. The water recirculation pump (Item 463) is turned on, the nitrogen inlet solenoid valve (Item 051A) is opened and power is applied to the electrochemical hydrogen pumps in the hydrogen-water phase separator.

TABLE 4.11-I
SPE OXYGEN GENERATOR ASSEMBLY PARTS LIST

ITEM NUMBER	ITEM DESCRIPTION	HSD PART NUMBER	VENDOR	VENDOR PART NUMBER
003	Ball valve, 4-way	SVSK115470-2	Flodyne	3J45
005	Solenoid valve, 3-way	SVSK115359-1	Flodyne	2A3572S
051	Solenoid valve, N.C.	SVSK120803-1	Flodyne	2A1504S
051A	Solenoid valve, N.C.	None	Skinner	71215SN1GN00N0H111P3
053	Solenoid valve, N.O.	SVSK120803-2	Flodyne	2A1505S
080-1	Shut-off valve	SVSK115406-3	Whitey	SS-14DKS4
080-2	Shut-off valve	SVSK115406-3	Whitey	SS-14DKS4
080-3	Shut-off valve	None	Nupro	SS-4P4T
080A	Shut-off valve	None	Nupro	SS-4P4T4
081-1	Solenoid valve, N.C.	SVSK115466-2	Flodyne	2J17
081-2	Solenoid valve, N.C.	SVSK115466-2	Flodyne	2J17
081A	Sample valve	None	Nupro	SS-4LA
104-1	Check valve	SVSK114347-1	Autoflow	291900-1
104-2	Check valve	SVSK114347-1	Autoflow	291900-1
105-1	Check valve	None	Nupro	SS-CHS4-1/3
105-2	Check valve	None	Nupro	SS-CHS4-1/3
105-3	Check valve	None	Nupro	SS-CHS4-1/3
120	Differential back pressure regulator	SVSK115351-3	Autoflow	DR6104-514
125	Relief valve	SVSK115354-1	Flodyne	2A260RL
126A	Relief valve	None	Nupro	SS-CHS4-5
127	Differential back pressure regulator	SVSK115351-4	Autoflow	DR6104-516
130	Differential back pressure regulator	SVSK115351-5	Autoflow	DR6104-517
163	Relief valve	None	Nupro	SS-RL3S4
167-1 thru -7	Sample valve	None	Whitey	SS-14DKS4

TABLE 4.11-I
SPE OXYGEN GENERATOR ASSEMBLY
PARTS LIST

ITEM NUMBER	ITEM DESCRIPTION	HSD PART NUMBER	VENDOR	VENDOR PART NUMBER
250	Filter	SVSK114340-1	Nupro	SS-4FW-15
295	Deionizer bed	SVSK116644-1	HSD	SVSK116644-1
463	Recirculation pump	SVSK116585-1	Micropump	81492 025
464	Feed water pump	SVSK116585-2	Micropump	E7585 059
554A	Heat exchanger	None	Exergy	00463
605-1	Metal bellows accumulator	SVSK116033-1	Westport Dev	130118
605-2	Metal bellows accumulator	SVSK116033-1	Westport Dev	130118
606	Metal bellows accumulator	SVSK116035-1	Westport Dev	130119
611	Nitrogen accumulator	None	Whitey	316L-HDF4-500
7061	Pressure sensor	None	Druck	PDCR130/W/C-0520
7062	Pressure sensor	SVSK117247-5	Druck	PDCR130/W/C
7063	Pressure sensor	None	Druck	PDCR130/W/C
708	Differential pressure sensor	SVSK117248-3	Sensotec	Model 060
709	Differential pressure sensor	SVSK117247-10	Druck	PDCR130/70WL/C
736-1	Temperature sensor	SVSK111142-2	RdF	21637
736-2	Temperature sensor	SVSK111142-2	RdF	21637
745	Flow switch	None	efector	STN12ABBE1/S
746-1	Combustible gas sensor	SVSK115299-1	General Monitors	SC100
746-2	Combustible gas sensor	SVSK115299-1	General Monitors	SC100
746-3	Combustible gas sensor	None	General Monitors	10058-1
746-4	Combustible gas sensor	None	General Monitors	10058-1
749	Pressure sensor	SVSK119328-1	Kulite	IPTE-51-1000-100D

TABLE 4.11-I
SPE OXYGEN GENERATOR ASSEMBLY
PARTS LIST

ITEM NUMBER	ITEM DESCRIPTION	HSD PART NUMBER	VENDOR	VENDOR PART NUMBER
755	Conductivity sensor	SVSK118458-1	Sensor Development	CS1042-0.1-HS-SAE-HP
762-1	Temperature sensor	SVSK111142-3	RdF	21628
762-2	Temperature sensor	SVSK111142-3	RdF	21628
812A	Flow restrictor	None	Lee Co.	VDLA4326565H
906	Electrolysis module	SVSK116112-1	HSD	SVSK116112-1
907	Oxygen phase separator	SVSK116112-101	HSD	SVSK116112-101
908	Hydrogen phase separator	SVSK116112-102	HSD	SVSK116112-102

After successfully completing a purge of the hydrogen circuit, the nitrogen purge valve, Item 053, is energized closed and the nitrogen reference system begins to pressurize. Once the nitrogen pressure reaches 50 psia, the system will transition from the PURGE state to the PROCESS-VENT state, where current to the electrolysis cell stack is ramped to approximately 26 amps, the current level required to produce oxygen on a continuous basis at the rate of 7.4 lb_m/day. Oxygen gas will be delivered to the oxygen outlet interface, while a mixture of nitrogen and hydrogen will be delivered to the hydrogen vent interface. At this time the bellows control laws are active; should the water level in the water recirculation loop metal bellows accumulator fall below a predetermined value, the feed pump (Item 464) will be energized to draw water from either of the two feed water bellows tanks. Feed water from the facility is introduced whenever the level in the feed tank falls below a preset level and the four-way ball valve is in a particular position. Detailed information regarding the operation of the metals bellows accumulators and associated hardware is available in the Process Controller Software Requirements Specification.

Once the hydrogen circuit has been sufficiently purged of nitrogen, the system enters the PROCESS state. Once in the PROCESS state, the current to the electrolysis cell stack is set to a level based on the user inputs for oxygen production and LIGHT/DARK side requirements. In addition, the three-way solenoid valve (Item 005) switches the flow of hydrogen from the vent interface to the outlet interface provided the user has selected REDUCTION for hydrogen delivery (refer to the Operations Manual). The system will remain in the PROCESS state until either the user changes modes, or a system fault is detected. If PERIODIC oxygen delivery was selected, the current to the electrolysis cell stack is reduced to a trickle value of 1 amp once the LIGHT side of the simulated orbit has been completed. The current remains at 1 amp for the duration of the DARK side, and is sufficiently high enough to maintain polarization of the electrolysis cells and to prevent decay in the hydrogen pressure. During the DARK side, the water recirculation pump remains on, the bellows level control laws remain active, and all system instrumentation continues to monitor system health. Once the DARK side of the simulated orbit has been completed, the preset current level is restored to the electrolysis cell stack and full oxygen production returns.

If the user had selected the STANDBY mode instead of the ON mode, the SPE OGA would transition at the end of the PROCESS-VENT state to the HOLD state rather than to the PROCESS state. The HOLD state places the OGA in a configuration identical to that of the DARK side of the simulated orbit; however, the system will remain in this state until either the user changes modes or a system fault is detected.

Termination of the test can be accomplished during operation in any mode or state within a mode by selecting either the IMMEDIATE SHUTDOWN mode or the OFF mode. If the OFF mode is selected, the system transitions to the RECIRC state. In the RECIRC state, power to all actuated components within the system is removed with the exception of the recirculating water pump. The pump remains on for an additional two minutes to purge the recirculation loop of oxygen. With power removed from the remainder of the actuated components, a nitrogen purge and corresponding depressurization of the hydrogen circuit occurs. The IMMEDIATE SHUTDOWN mode removes power to all actuated components, including the recirculating water pump, and should therefore be used only in the event of an emergency shutdown.

A nitrogen purge and subsequent depressurization of the hydrogen circuit is accomplished once power is removed from the purge valve, Item 053. Should the purge valve fail to open during the shutdown, the emergency depressurization valve (Item 051) is opened and, when the nitrogen-hydrogen differential pressure exceeds 45 psid, the nitrogen-hydrogen relief valve (Item 125) opens to purge and safely depressurize the hydrogen circuit.

5.0 SYSTEM TESTING

The refurbished SPE Oxygen Generator Assembly was subjected to an acceptance test program as defined in the Master Test Plan contained in Appendix B. The purpose of the acceptance test program was to verify the effectiveness of the refurbishment by demonstrating elimination of operational deficiencies present in the original system, and operation of the system at various oxygen generation rates and in a cyclical manner. After successfully completing a thorough check-out test, including proof pressure and leakage testing, anomaly verification testing and mode/state transition testing, the unit operated for 743 hours, including 693 hours in the cyclic mode of operation. With a simulated orbit of 90 minutes, the system completed approximately 460 cycles of light side/dark side operation. Power requirements of the different components in the system were recorded in Appendix A of the test plan, and flow measurements at different operating conditions were made and recorded in Appendix B of the test plan. The gas quality of the product gases was also determined through standard laboratory analytical techniques, with the results indicating no cross contamination of one gas with the other at the detection level of the instrument (see Appendix C of the test plan). Specific test results and findings are detailed in the following sections.

5.1 Electrolysis Cell Stack Performance

The electrolysis module, consisting of 18 SPE electrolysis cells, was assembled and successfully completed its check-out tests in January 1995. The module was then placed in a separate test rig to conduct performance testing as defined in the test plan. However, the average cell potential for the module at 90°F was 1.884 Vdc, over 100 mV higher than expected. Chemical analyses of the effluent from the module, in conjunction with other analytical techniques, revealed that the stack had been contaminated with a sodium salt from the test rig. The contamination of the rig likely occurred while moving the rig from the test facility in Building 20B to the new facility in Building 2. A decision was made to disassemble the module and replace the membrane and electrode assemblies. The cell mechanical hardware, as well as the test rig, were cleaned and subjected to numerous rinses with fresh DI water. In addition, a single cell was assembled and placed on test to verify the cleanliness of the test rig. A new module was assembled and subsequently placed on test. The average cell potential was 1.751 Vdc for the 100+ hour run, approximately 130 mV better than the initial build. Figure 5.1-1 displays the average cell potential for electrolysis module build-up #1 and #2.

Performance of the 18-cell stack operating in complete SPE OGA is presented in Figure 5.1-2 as average cell potential versus OGA operating time. Average cell potential is approximately 1.80 Vdc for the first 50 hours of operation, where the OGA was producing 7.4 lb_m/day of oxygen on a continual basis. Cyclic testing of the system began at approximately the 50 hour mark, with the cell stack producing the requisite amount of oxygen at a 60% duty cycle (54 minutes on / 36 minutes off). The average cell potential at 70°F varies between approximately 1.85 Vdc when the stack is at its required load, to approximately 1.55 Vdc when the stack is at its standby level of 1 amp. At approximately the 120 hour mark, the oxygen requirement was increased to 8.14 lb_m/day, decreased to 6.66 lb_m/day, increased to 8.14 lb_m/day, and finally returned to 7.4 lb_m/day. The oxygen and hydrogen flow rates were measured and verified to be correct with a wet test meter as described in the master test plan. At approximately the 140 hour mark, the duty cycle was changed to 66% (60 minutes on / 30 minutes off) to verify proper generation rates at an off design duty cycle. The duty cycle was changed to 53 minutes on / 37 minutes off just prior to the 480 hour mark in the test program when it was realized the space station orbit of 54 minutes on / 36 minutes off was no longer valid.

The average cell performance was stable throughout the entire test program. In particular, when the deionizer bed was removed from the recirculating water loop due to flow anomalies to be discussed in a later section, there was no discernible difference in the average cell potential.

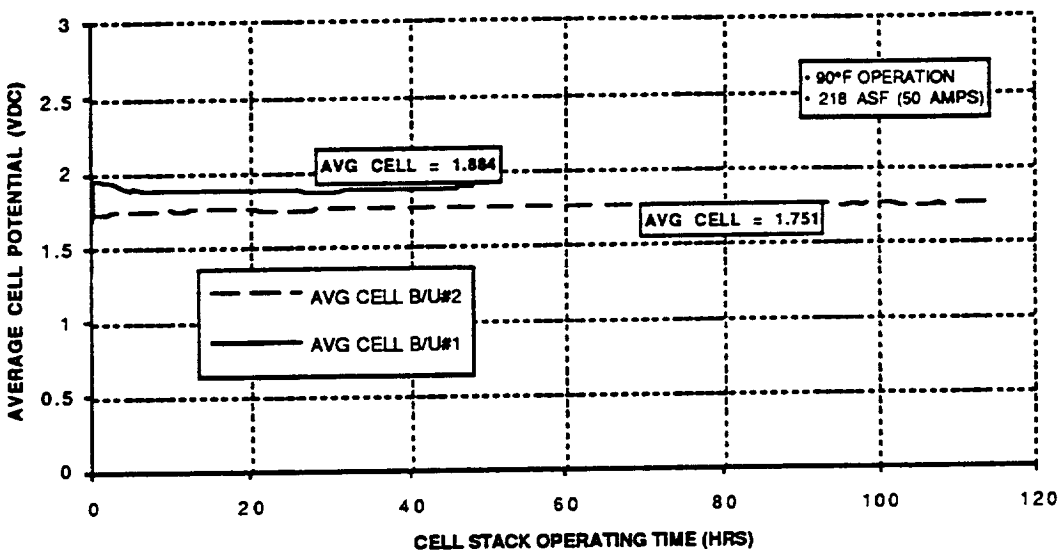
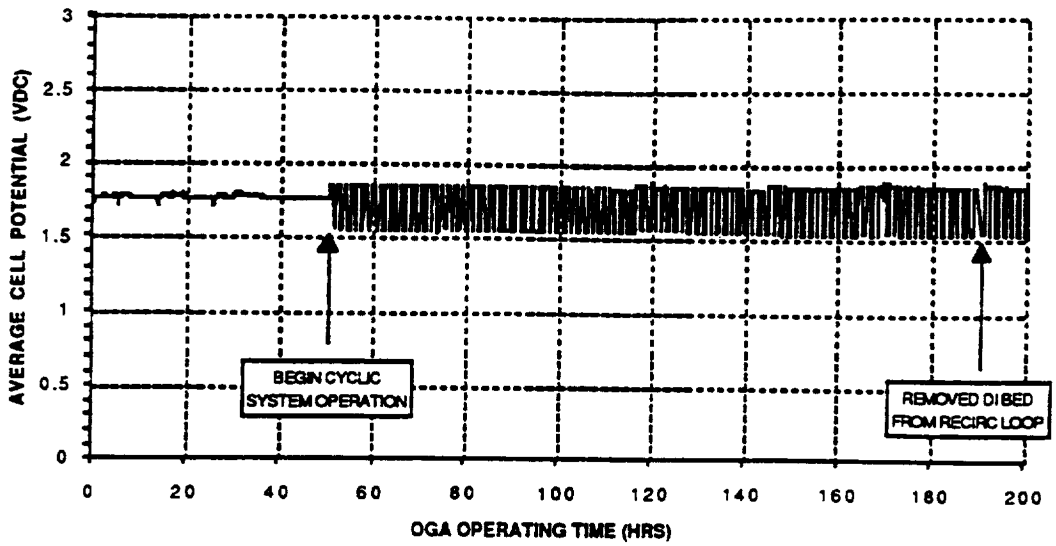


FIGURE 5.1-1
18-CELL ELECTROLYSIS CELL STACK
PERFORMANCE COMPARISON



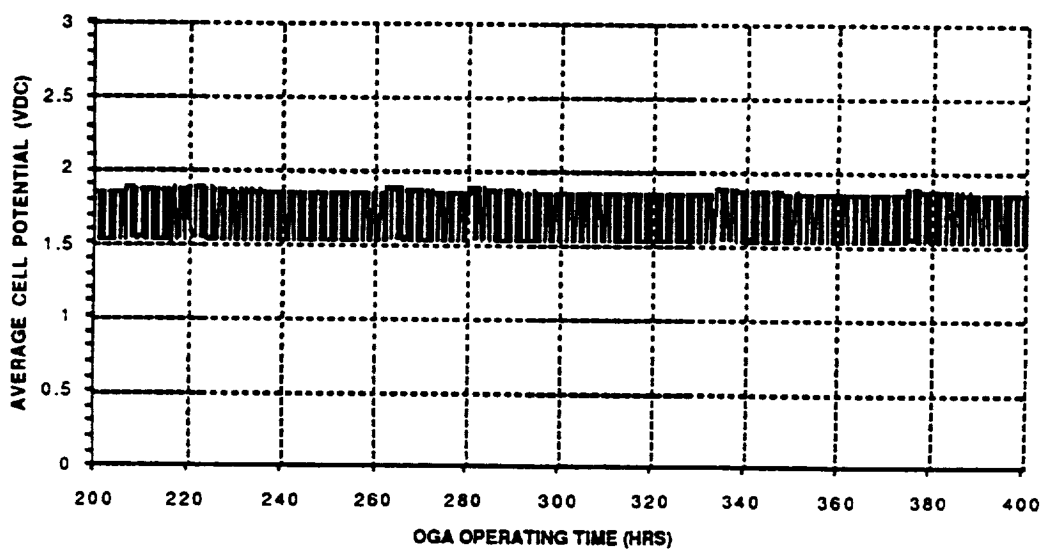
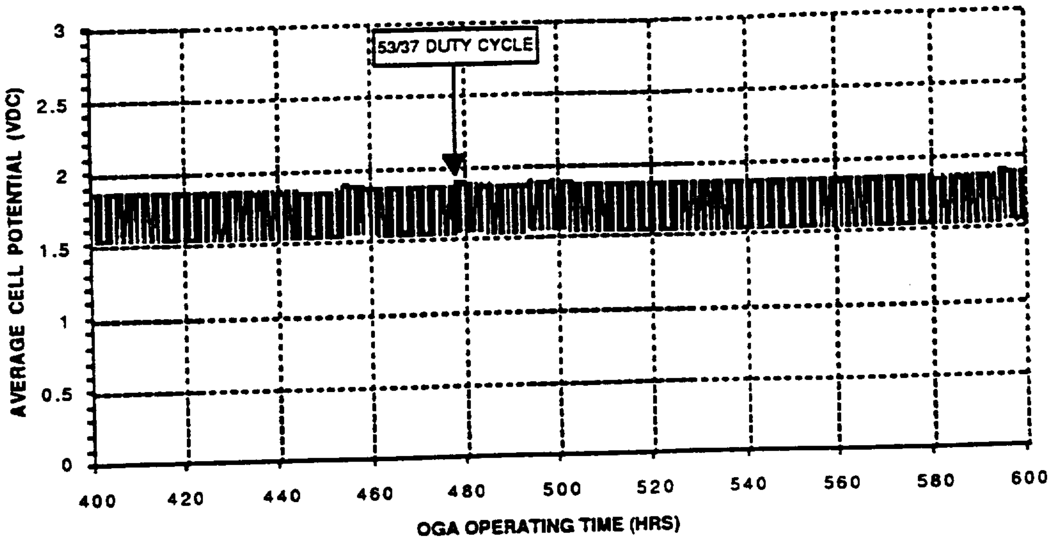


FIGURE 5.1-2
SPE OGA
AVERAGE CELL POTENTIAL



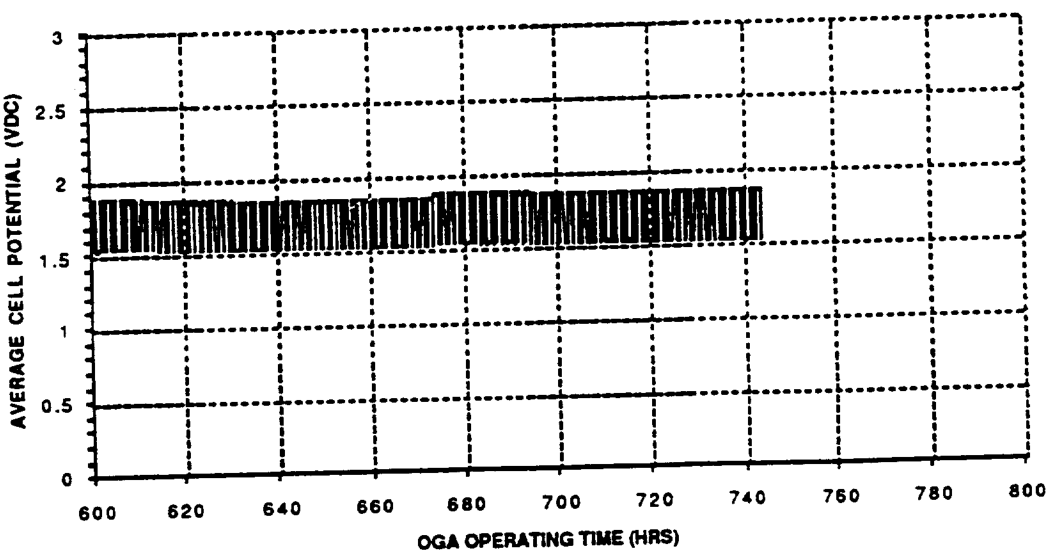


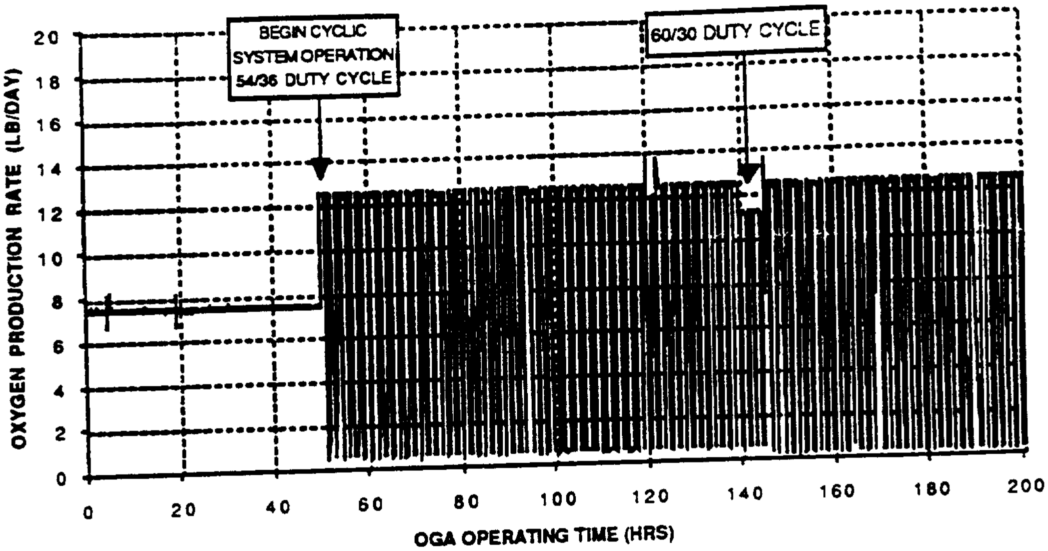
FIGURE 5.1-2 (CONT'D)
SPE OGA
AVERAGE CELL POTENTIAL

The oxygen and hydrogen production rates are plotted in Figures 5.1-3 and 5.1-4, respectively, and are a measure of the instantaneous production rates of the OGA. For example, in order to provide the nominal daily requirement of 7.4 lb_m/day at a 60% duty cycle, the instantaneous oxygen production rate would have to be 12.33 lb_m/day, as depicted in the plots. As stated earlier, the oxygen and hydrogen flow rates were verified correct at the minimum, nominal and maximum oxygen requirement.

Current to the electrolysis cell stack is presented as Figure 5.1-5. The plot of current vs. time mimics those of the gas production rates since the latter are a direct function of the former. The standby current level for the system from hour mark 50 to 145 was 2 amps; however, this level was reduced to 1 amp when testing revealed the electrolysis power supplies could be adequately controlled at such a low current level.

5.2 Recirculating Water Loop Performance

One of the key reasons for refurbishing the LFSPE oxygen generation subsystem was its inability to adequately prime during system start-up. The original system employed a water purging technique at system start-up in order to purge the loop of oxygen that had come out of solution during system depressurization. However, the purge typically lasted 30 minutes or longer and was only about 50% effective in priming of the recirculation water pump. The refurbished SPE OGA eliminated this pump priming problem by: reducing the loop operating pressure; maintaining the pump inlet above ambient pressure during all aspects of system operation; and, repackaging the system to minimize potential 1-g gas traps. As part of the acceptance test program, the SPE OGA was subjected to a number of powered and unpowered shutdowns to determine the effectiveness of the system changes to allow proper operation of the recirculation pump during system start-up. After each system shutdown and restart, the pump was able to prime and begin recirculating water through the system in only a matter of a few seconds.



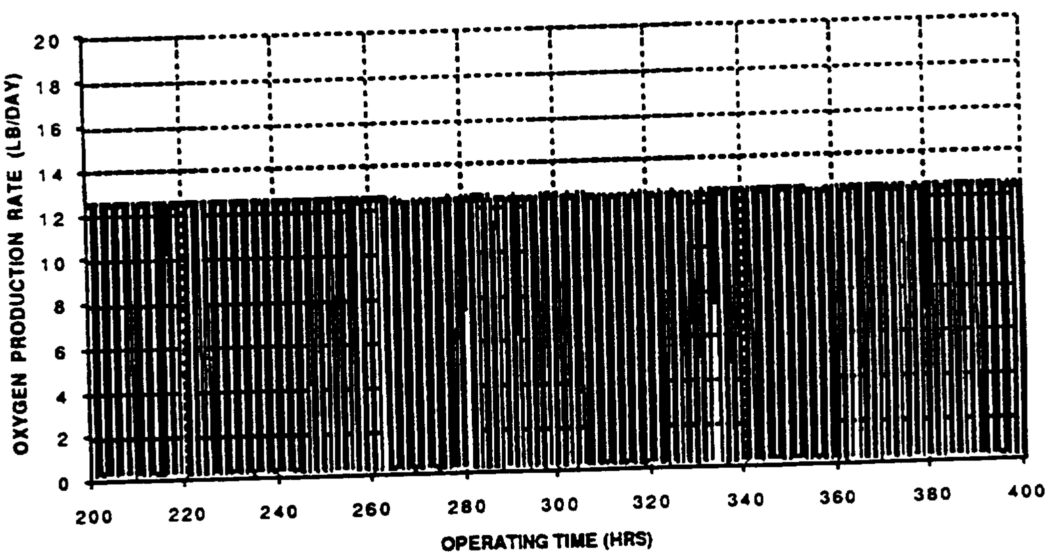
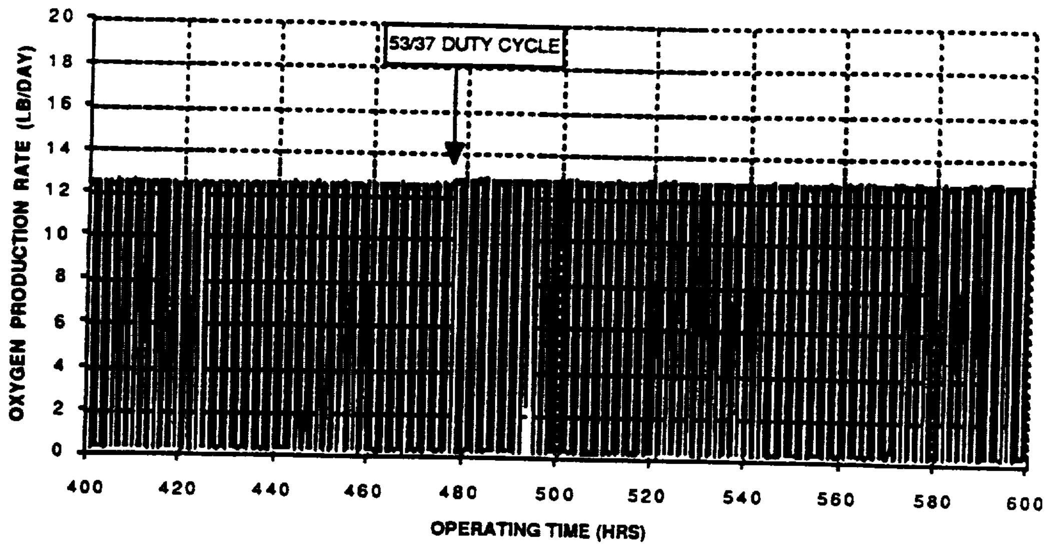


FIGURE 5.1-3
SPE OGA
OXYGEN PRODUCTION RATE



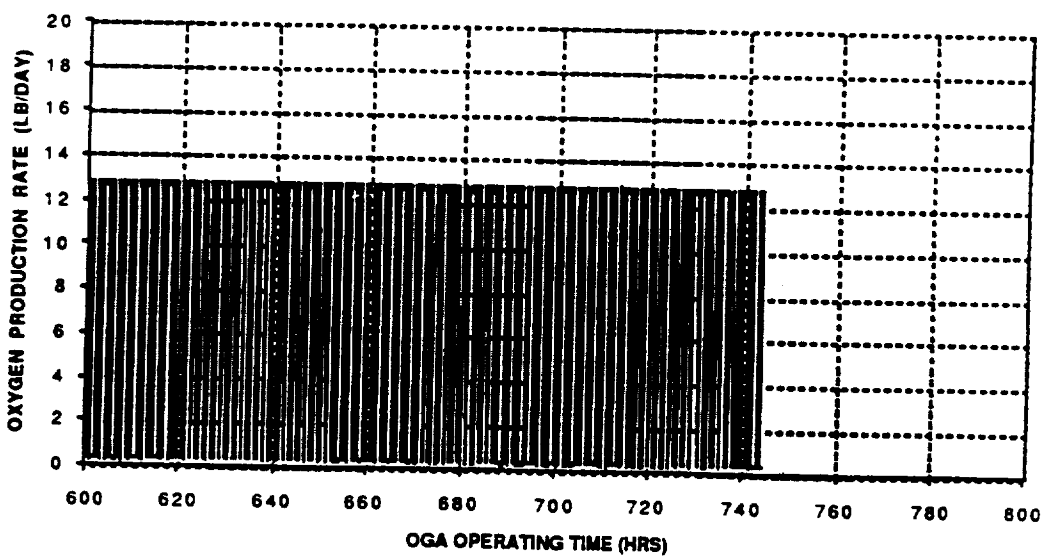
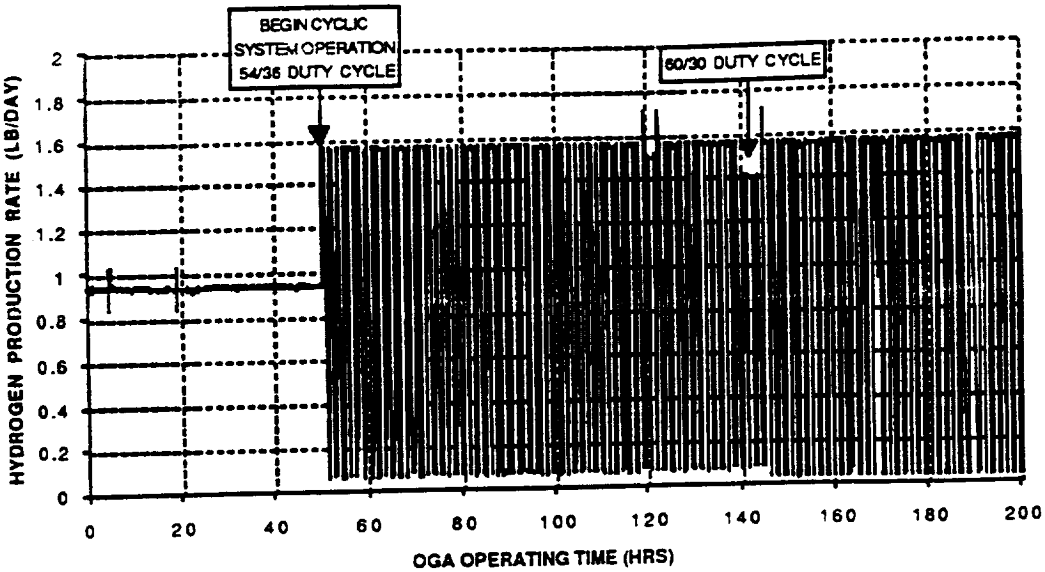


FIGURE 5.1-3 (CONT'D)
SPE OGA
OXYGEN PRODUCTION RATE



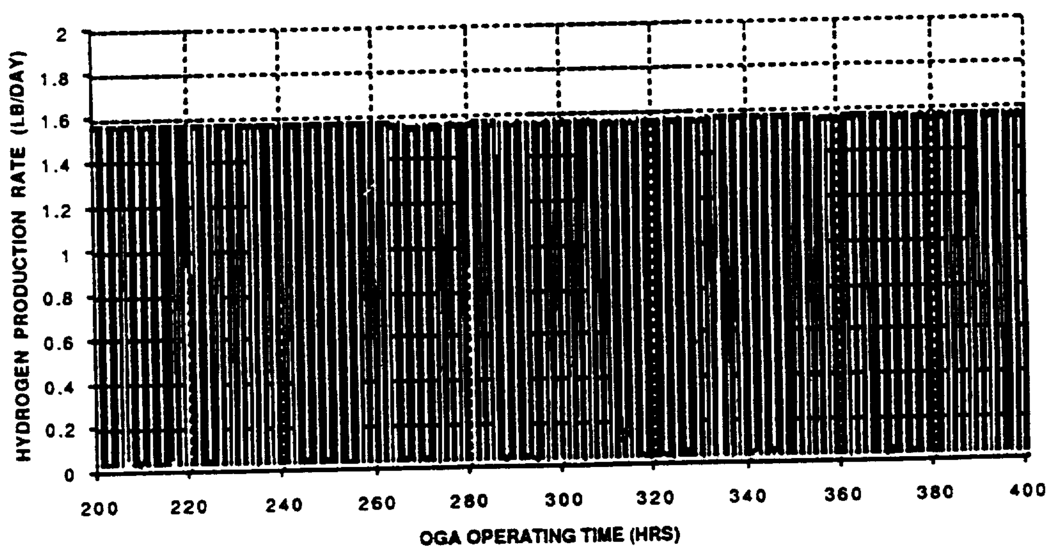
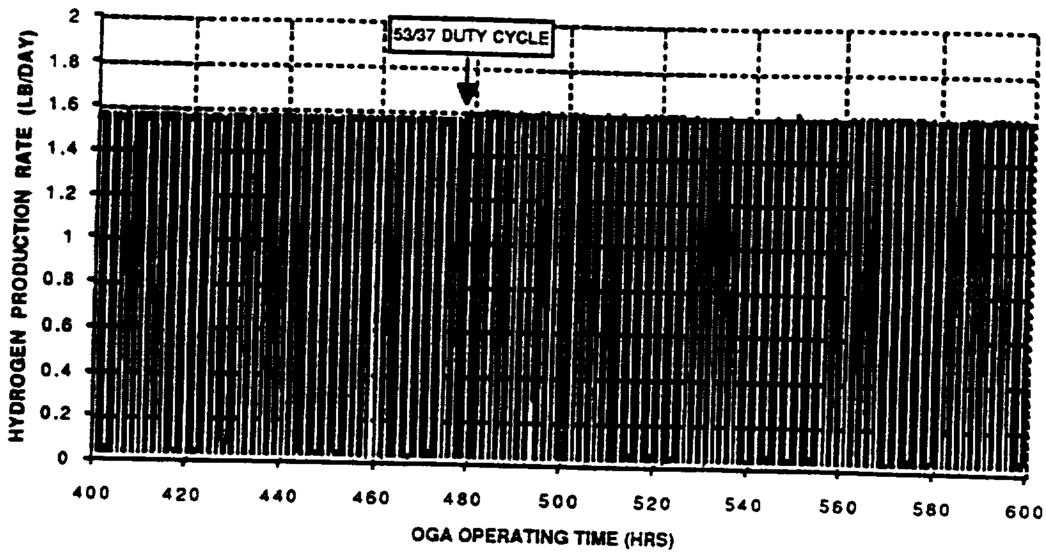


FIGURE 5.1-4
SPE OGA
HYDROGEN PRODUCTION RATE



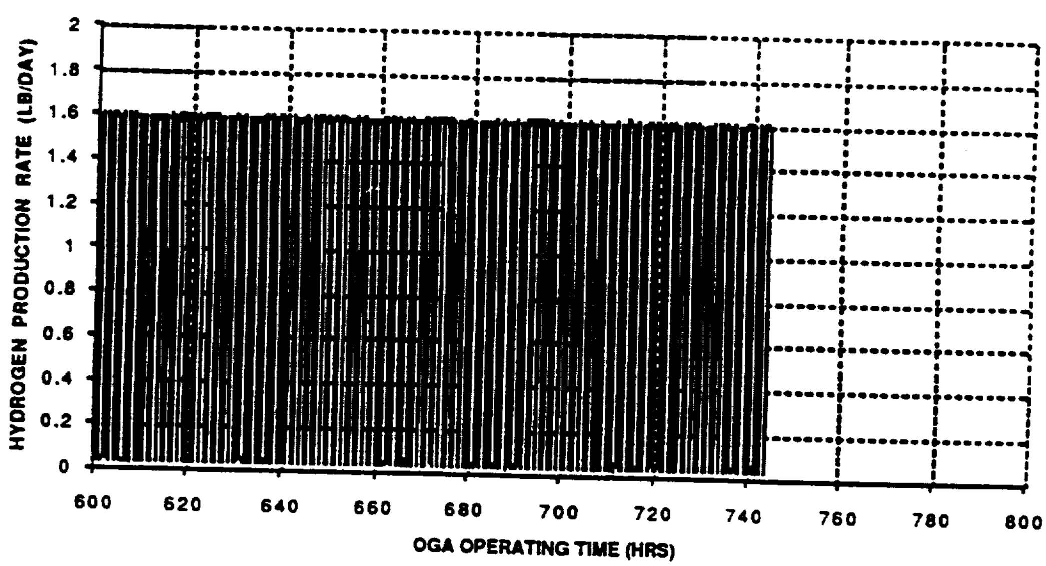
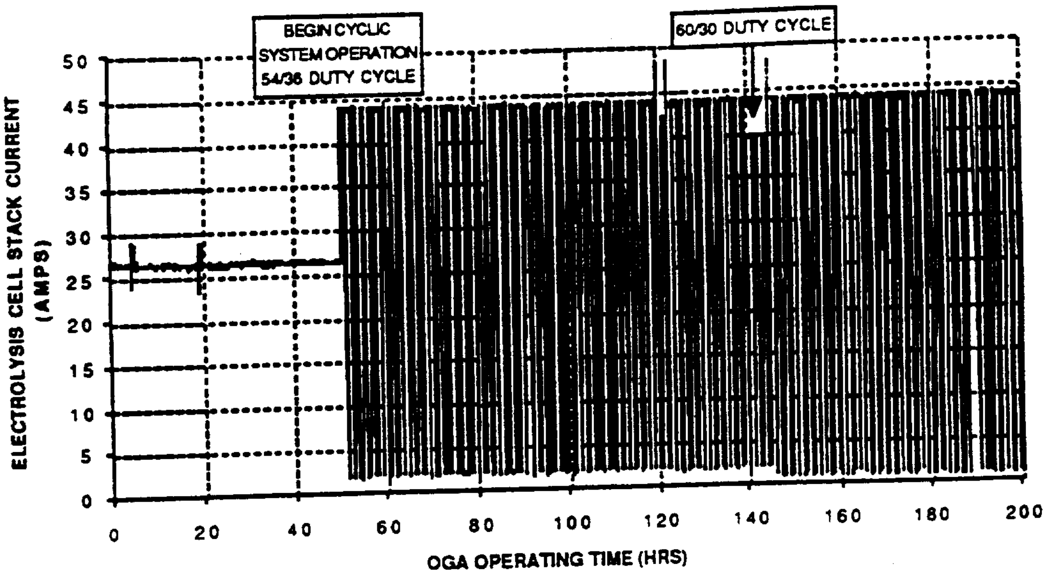


FIGURE 5.1-4 (CONT'D)
SPE OGA
HYDROGEN PRODUCTION RATE



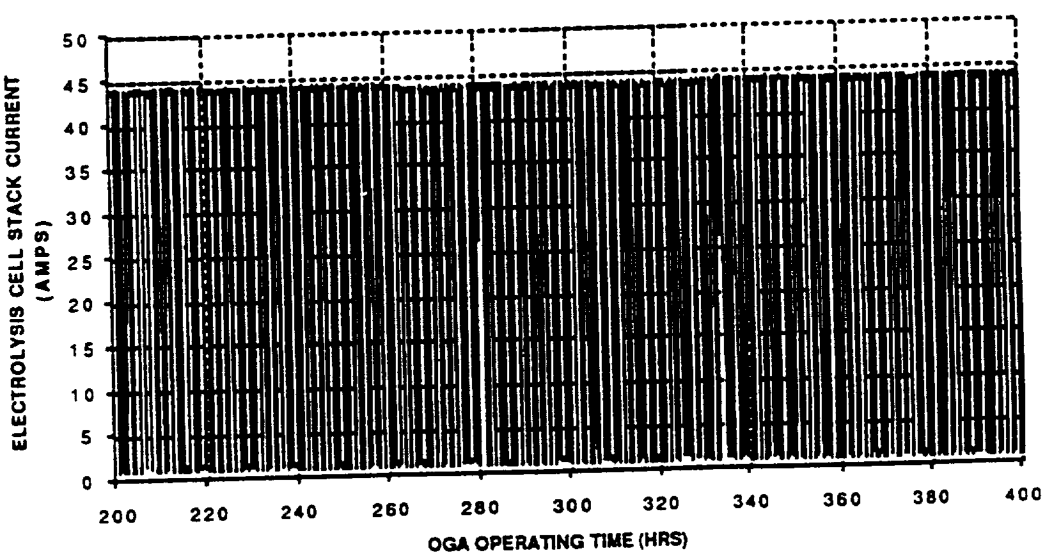
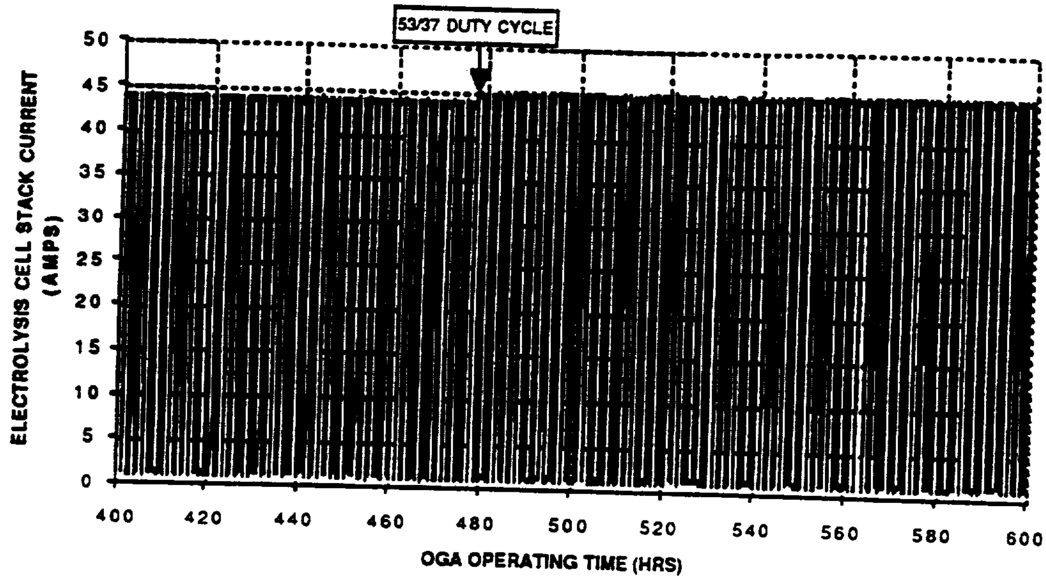


FIGURE 5.1-5
SPE OGA
ELECTROLYSIS CELL STACK CURRENT



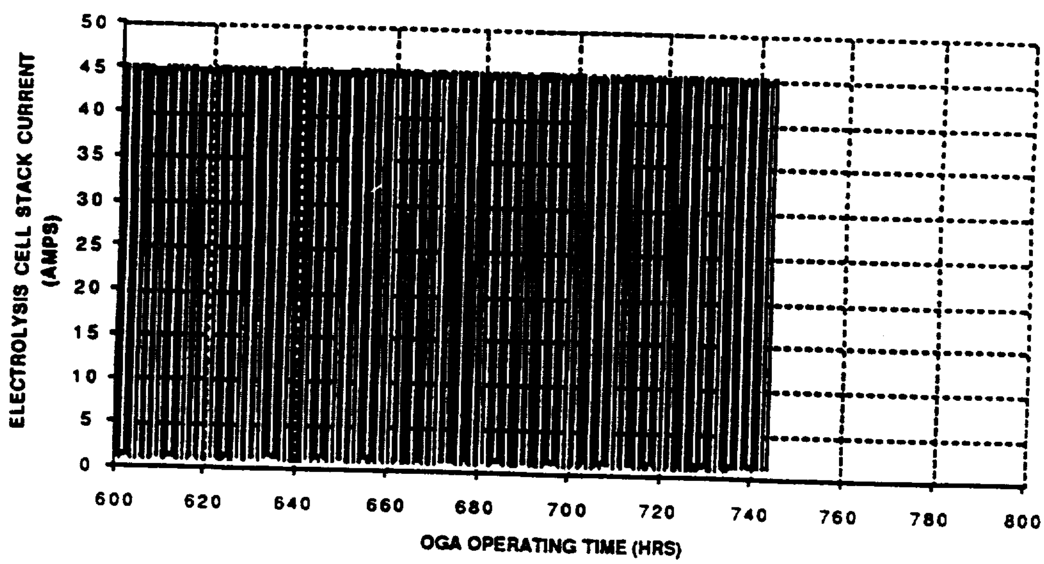


FIGURE 5.1-5 (CONT'D)
SPE OGA
ELECTROLYSIS CELL STACK CURRENT

Additional changes to the recirculating water loop included modifying the bellows accumulator level sensor, incorporating a liquid to liquid heat exchanger, and replacing the pressure sensor used to calculate a water flow rate with a thermal flow switch. The bellows accumulator level sensor was modified from seven discrete switch points to an analog device, allowing the controller and the operator to know more accurately the level within the accumulator at all times. The liquid to liquid heat exchanger, as mentioned earlier, maintains the correct operating temperature of the recirculating water loop even with all 18 cells operating at a cell potential of 2.5 Vdc. The flow switch monitors the flow rate to the module, and initiates a system shutdown if a low flow condition occurs.

During the first half of the test program the flow switch registered a number of low water flow conditions, sometimes resulting in a shutdown of the system. A low flow shutdown is triggered by the system controller if the recirculating water flow rate is below the flow switch setpoint for 10 seconds. The calibration of the flow switch was checked a number of times and was found to be correct on all occasions. The speed of the motor, and hence the water flow rate, was increased incrementally from 0.48 GPM to 0.60 GPM to determine if higher flow rates would prevent the shutdown from occurring. However, a number of low flow conditions were recorded after the pump speed was set at the 0.60 GPM setting.

A number of actions were taken with respect to the recirculation water loop hardware in an attempt to resolve the low flow condition. At the 190 hour mark, the deionizer bed was removed from the recirculation loop. The bed was removed since, due to its high pressure drop, it was a source for dissolved oxygen to come out of solution and, because of its geometry, it acted as a 1-g gas trap. The theory was that the gas bubbles which collected in the bed housing would cause channeling in the resin bed, resulting in even higher pressure drops. Eventually, sufficient gas would collect in the bed housing to cause the pump to stall. Or, the bubbles would escape the bed and migrate to the flow switch, causing it to trigger a loss of flow condition. The system was returned to test; however, the occasional low flow condition persisted.

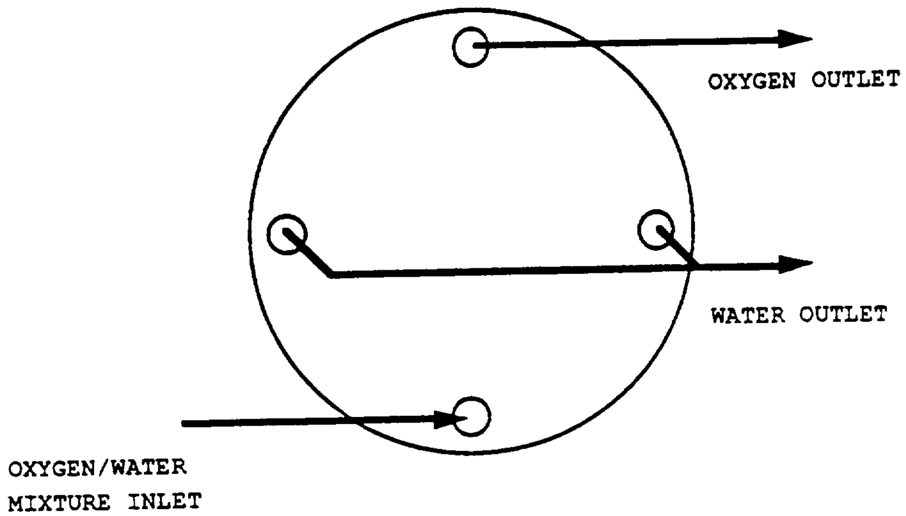
At the 215 hour mark, the oxygen phase separator was rotated 90° since, after further reviewing the package assembly, it was deemed to act as a 1-g gas trap. Figure 5.2-1 depicts the orientation of the phase separator before and after the rotation. As the oxygen-saturated water flows through the hydrophilic membrane of the phase separator assembly, some of the oxygen comes out of solution as tiny gas bubbles. The original orientation of the phase separator had the water outlets at the 3 and 9 o'clock positions, allowing the bubbles to coalesce and collect in the top half of the water cavities of the assembly. Changes in the operating pressure or temperature of the phase separator assembly could cause the gas bubble at the top of these cavities to expand, resulting in a substantial quantity of gas becoming entrained in the water outlet ports. The gas would flow to the bellows accumulator and finally to the pump inlet, resulting in cavitation of the pump. Hence, the phase separator assembly was rotated 90° such that the water outlets were at the 6 and 12 o'clock positions. In this manner, oxygen bubbles evolving from solution would be swept out of the water cavity in a more uniform manner, rather than as potential slugs of gas. The system was returned to test, but still occasional low flow conditions occurred.

At approximately the 265 hour mark, the OGA was shutdown, and the following actions were undertaken to determine the cause for the occasional low flow condition:

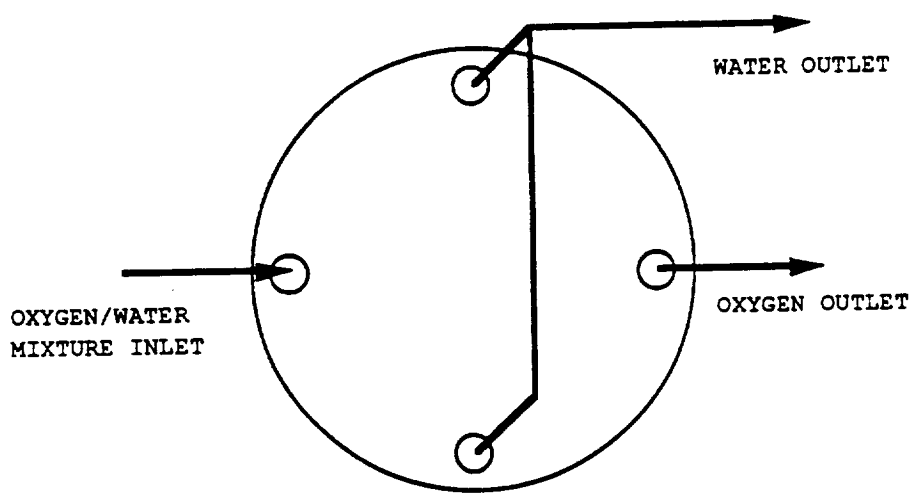
- A strip chart recorder was installed to monitor the output signal from the flow sensor, and the input signals to the two motor controllers that drive the brushless DC motors on the recirculating water pump and the feed water pump.

- A rotameter was installed at the pump outlet to visually monitor the flow rate of the recirculating water loop. The rotameter was installed in the loop using 3/8" O.D. PFA tubing.

- The 3/8" O.D. stainless steel tubing connecting the water output from the phase separator to the bellows accumulator inlet, and that connecting the bellows accumulator outlet to the pump inlet were



ORIGINAL PHASE SEPARATOR ORIENTATION



FINAL PHASE SEPARATOR ORIENTATION

FIGURE 5.2-1
OXYGEN PHASE SEPARATOR
ASSEMBLY ORIENTATION

replaced with translucent PFA tubing. A video camera was installed in the test facility to monitor the water quality exiting the phase separator-entering the bellows accumulator and exiting the bellows accumulator-entering the pump inlet.

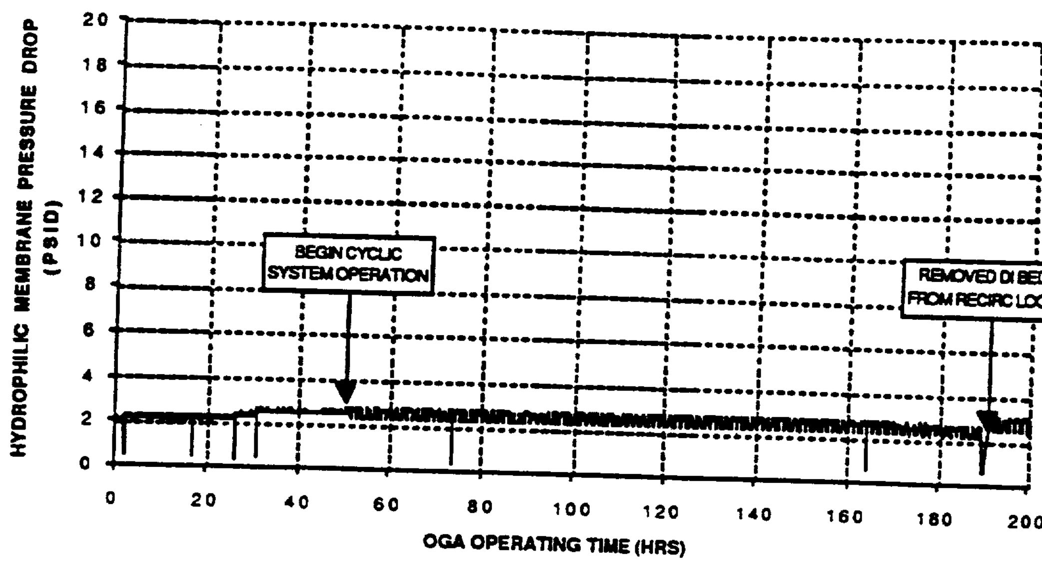
The system was returned to test and, as expected, it was observed that the oxygen phase separator water outlet occasionally released a stream of small gas bubbles into the water outlet. However, it was also observed that the bubbles entering the bellows accumulator tended to coalesce, resulting in larger bubbles exiting the accumulator and entering the pump inlet. A review of the bellows accumulator geometry revealed that the port connections of the tank were below the dome of the accumulator such that it became a 1-g gas trap.

On the morning of May 23, at the 322 hour mark, a low flow condition was registered on the strip chart recorder. The duration of the low flow condition was approximately 8 seconds, 2 seconds short of triggering an alarm condition. A review of the video tape revealed that a fairly large stream of bubbles exited the phase separator and were deposited into the bellows accumulator. A second stream of bubbles emerged from the separator and entered the accumulator, followed by a large stream exiting the accumulator. The pump immediately became gas bound and the flow of water ceased. A large bubble was trapped directly at the pump inlet and at the exit of the bellows accumulator. During the 8 second period, the pump was able to "consume" the bubble, and flow was reestablished.

In order to prevent the bellows accumulator from behaving as a 1-g gas trap, the plumbing to it was modified such that the flow of water went directly from the phase separator outlet to the pump inlet, with the bellows accumulator connected to the recirculating water pump on the run of a union tee. In this manner the bellows still functions as an expansion volume during cell stack current changes and as a batch feed tank for the electrolysis process. The system was run for approximately 144 hours without indication of a loss of flow condition. At approximately the 475 hour mark, the PFA tubing was replaced with stainless steel tubing, and the rotameter was removed from the recirculating water loop. The SPE OGA continued to operate without a loss of flow condition during the remaining 270 hours of the test program.

Pressure drop across the hydrophilic element of the oxygen phase separator is presented in Figure 5.2-2. The different events that led to changes in the pressure drop are depicted in the text boxes on the graphs. The change that is of most interest, however, is shortly after the rotameter was removed from the system and the PFA tubing was replaced with stainless steel, at the 475 hour mark. When testing was resumed, it was observed that the pressure drop across the hydrophilic element experienced a number of transients, as did the pressure at the cell stack outlet (see Figure 5.2-3). Although the pressure drop was significantly lower than the 36 psid bubble point of the hydrophilic membrane, it was a phenomenon that had not been observed before and therefore required investigation.

While reviewing the test data, it was determined that most of the transient conditions occurred shortly after the feed pump completed introducing water into the recirculation loop. Since the majority of the recirculation water loop resistance is downstream of the feed pump, introduction of an additional volume of water into the loop results in a pressure rise that is eventually dampened once the additional water volume passes through the separator and the normal flow/pressure regime is re-established. The transient was not observed when the rotameter and PFA tubing were in the loop since the volume of water introduced was a smaller percentage of the loop volume upstream of the phase separator. This additional loop volume dampened the pressure transient to essentially zero at the phase separator inlet. In order to reduce the spike of the transient, the feed pump outlet was relocated from immediately upstream of the electrolysis cell stack to immediately downstream of the recirculation pump outlet at the 670 hour mark. In addition, the volume of water introduced by the feed pump was reduced. These two events helped to reduce the frequency and amplitude of the transient conditions. Overall, the performance of the oxygen phase separator was satisfactory through the duration of the test program.



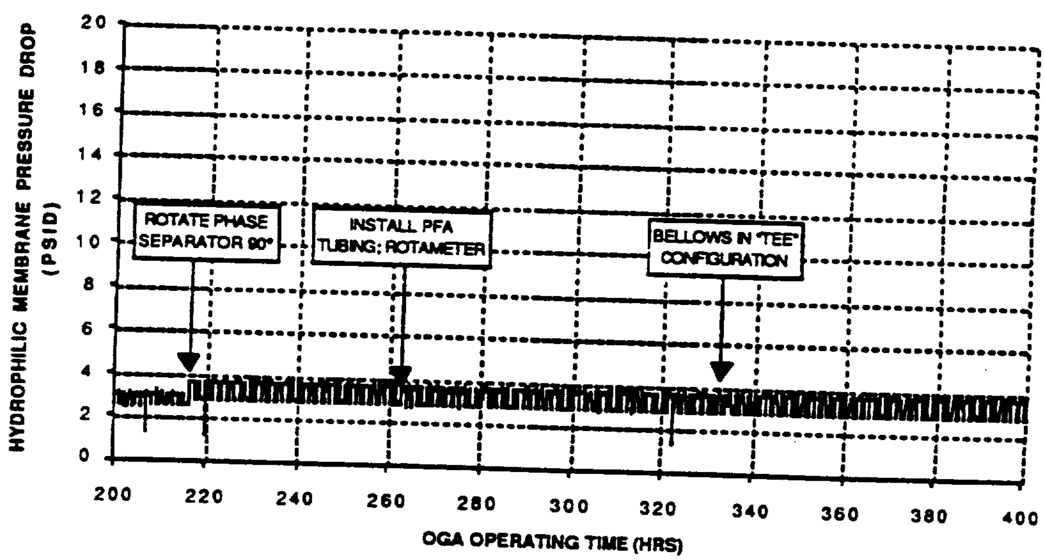
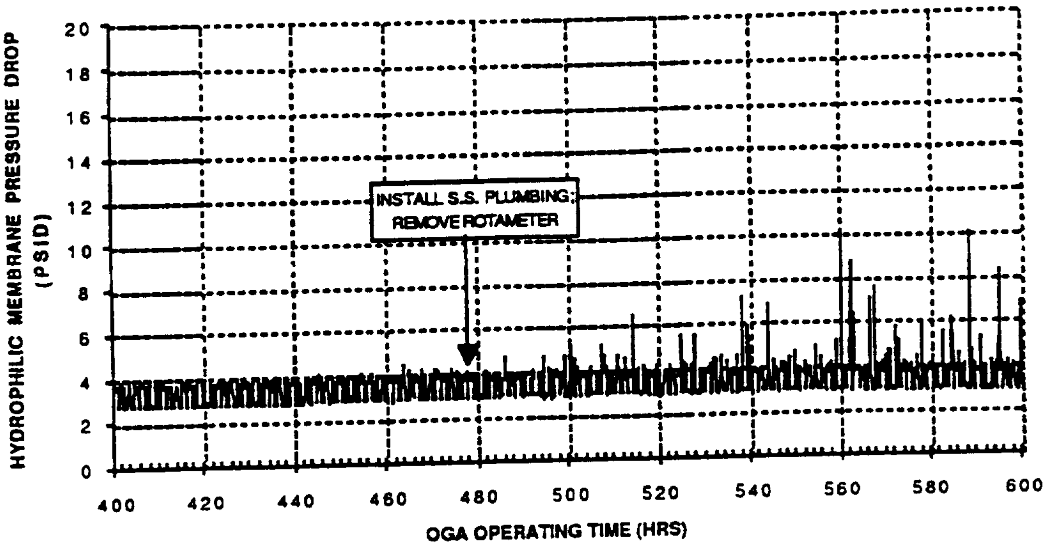


FIGURE 5.2-2
SPE OGA
OXYGEN PHASE SEPARATOR PERFORMANCE



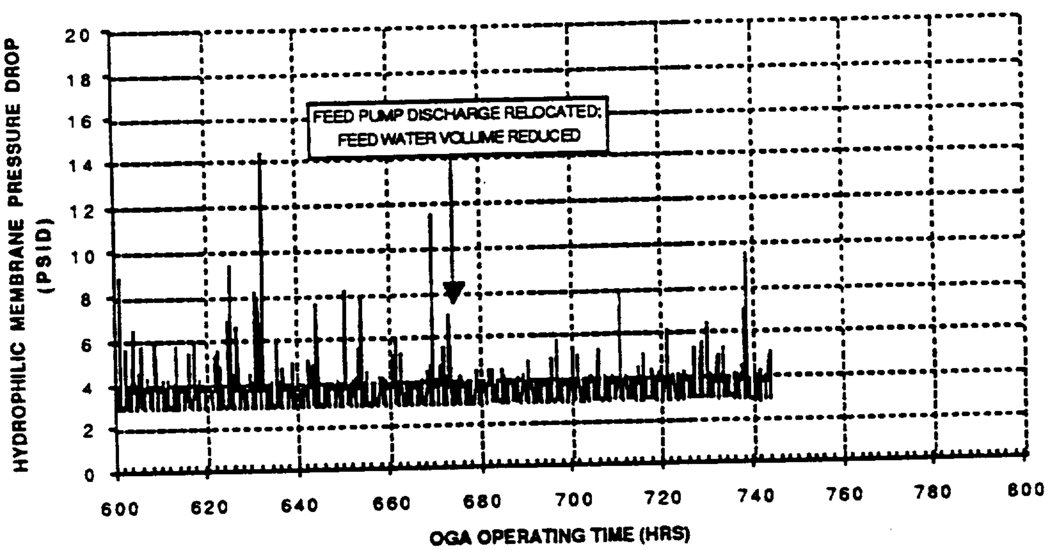
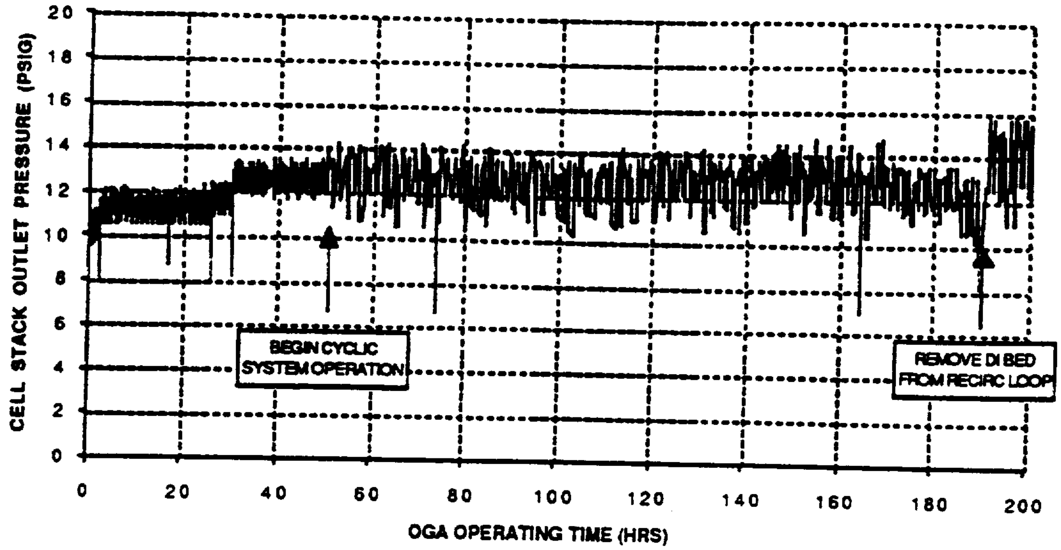


FIGURE 5.2-2 (CONT'D)
SPE OGA
OXYGEN PHASE SEPARATOR PERFORMANCE



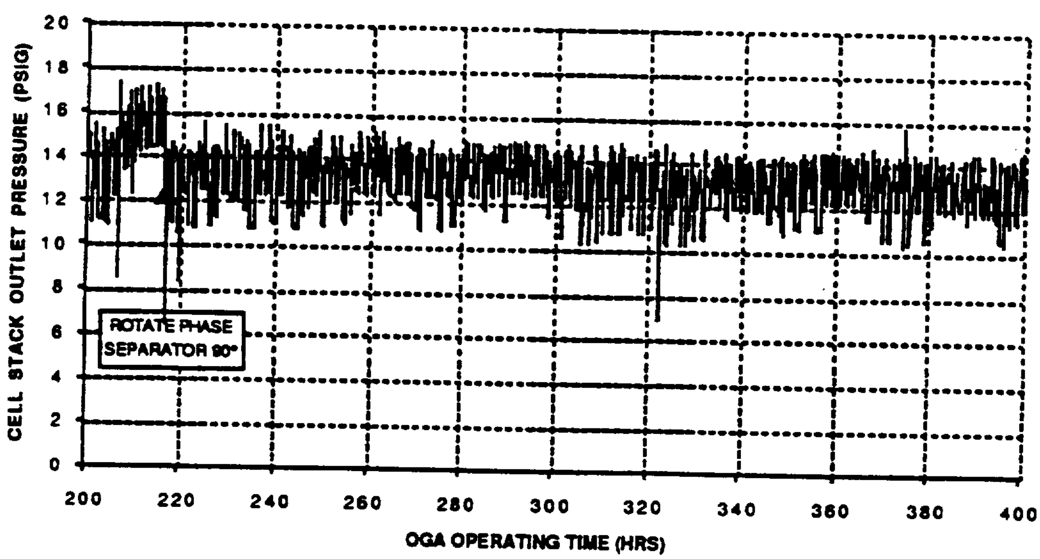
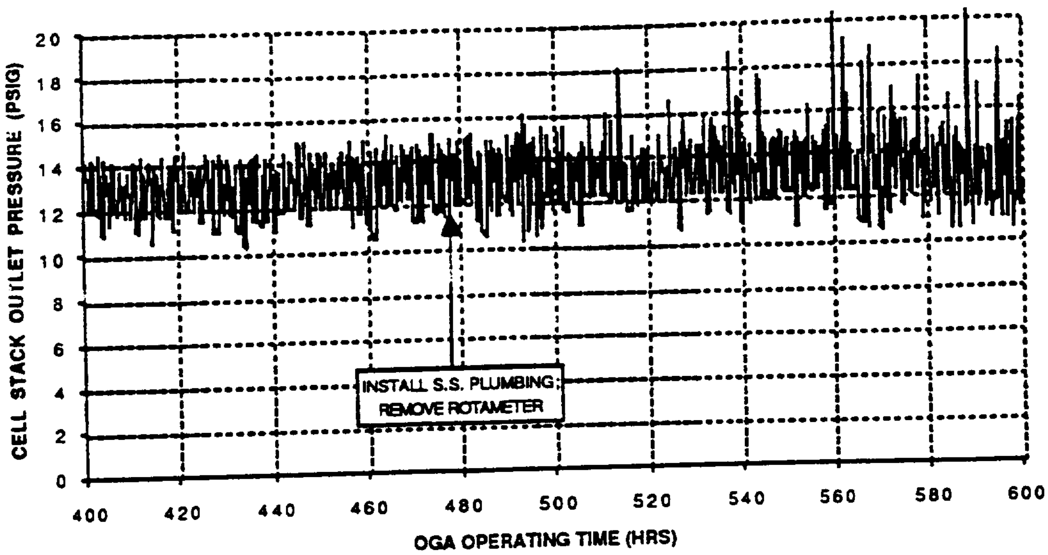


FIGURE 5.2-3
SPE OGA
CELL STACK OUTLET PRESSURE



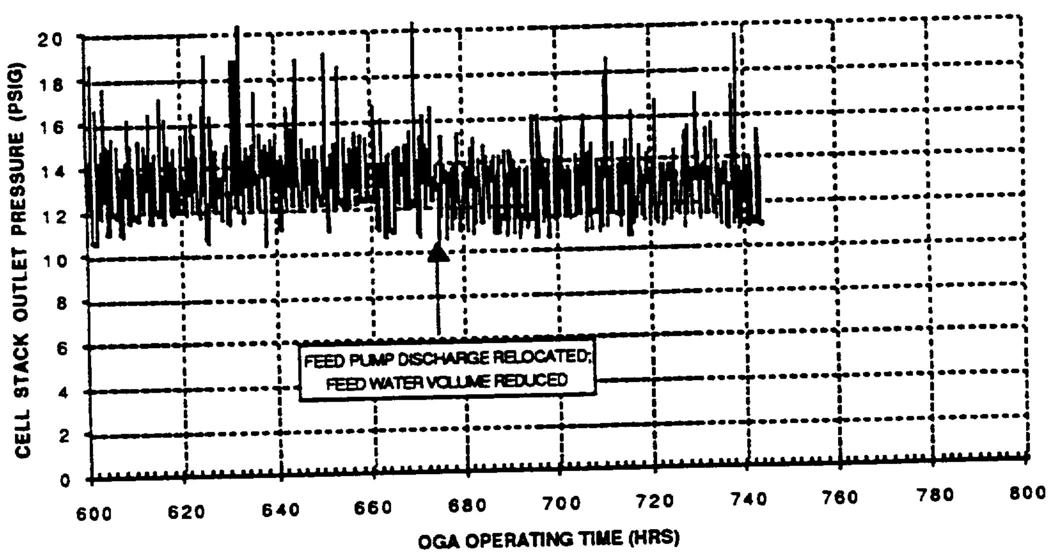
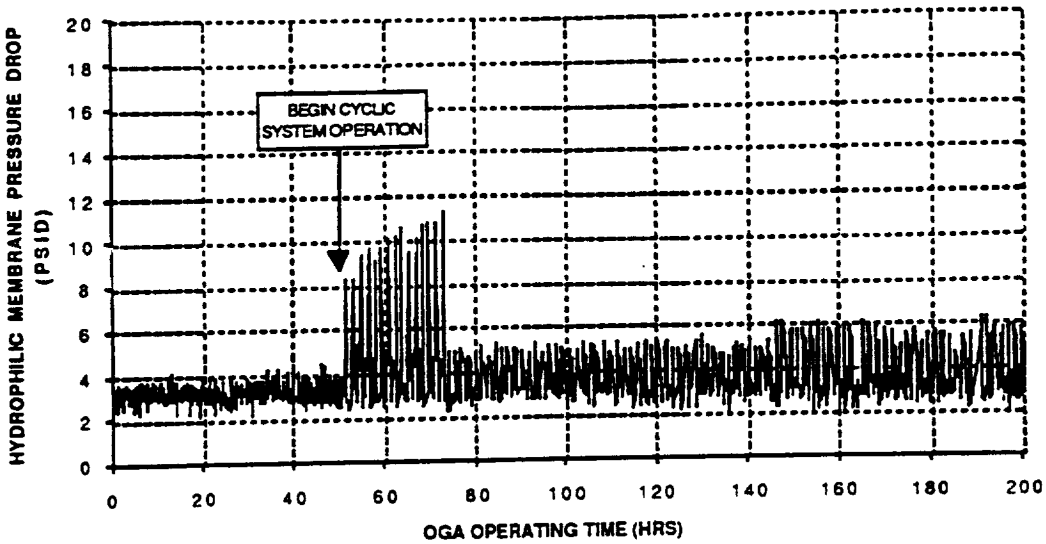


FIGURE 5.2-3 (CONT'D)
SPE OGA
CELL STACK OUTLET PRESSURE

5.3 Hydrogen Phase Separator Performance

As stated earlier, the hydrogen phase separator was revised to include two hydrophilic-hydrophobic cavities rather than a single hydrophilic element, and to eliminate the hydrogen sense cell whose function had been essentially bypassed during the 1990 test program. The performance of the hydrophilic-hydrophobic portion of the refurbished phase separator was satisfactory during the conduct of this test program. The pressure drop across the hydrophilic element is presented as Figure 5.3-1. This separator also experiences transients in hydrophilic membrane differential pressure; however, these transients occur when the system is transitioning from the dark side of the orbit to the light side. When the current to the electrolysis cell stack begins to increase, the hydrogen gas which serves as the reference pressure for the differential back pressure regulator increases in pressure more rapidly than the water at the inlet of the regulator. As a result, the differential pressure measured across the hydrophilic element climbs and remains high until the water pressure can catch up. The length of the transient condition is typically less than 30 seconds, and the differential pressure never exceeds the 36 psid bubble pressure of the hydrophilic membrane. The data plots only show pressure transients centered about the 60 hour mark and the 440 hour mark due to the fact the data is logged to disk only once every 5 minutes, and the duration of the transition is only approximately 30 seconds for each 90 minute cycle.

The electrochemical hydrogen pump performance was satisfactory throughout the duration of the program. However, the circuit which controls current to the cells experienced some problems. Since the electrochemical hydrogen pump cells behave as large capacitors, a special circuit had been designed to control the current to the cells. However, the circuit frequently malfunctioned, resulting in the cells either not charging at all or charging too rapidly. If the cells tried to charge too rapidly, the power supply would go into current limit mode by reducing the voltage to the load. The problem was later traced to an electrical contactor that was in the process of burning out and finally failed closed, resulting in damage to the components in the control circuit. An analysis of the circuit revealed that the power supply sense line



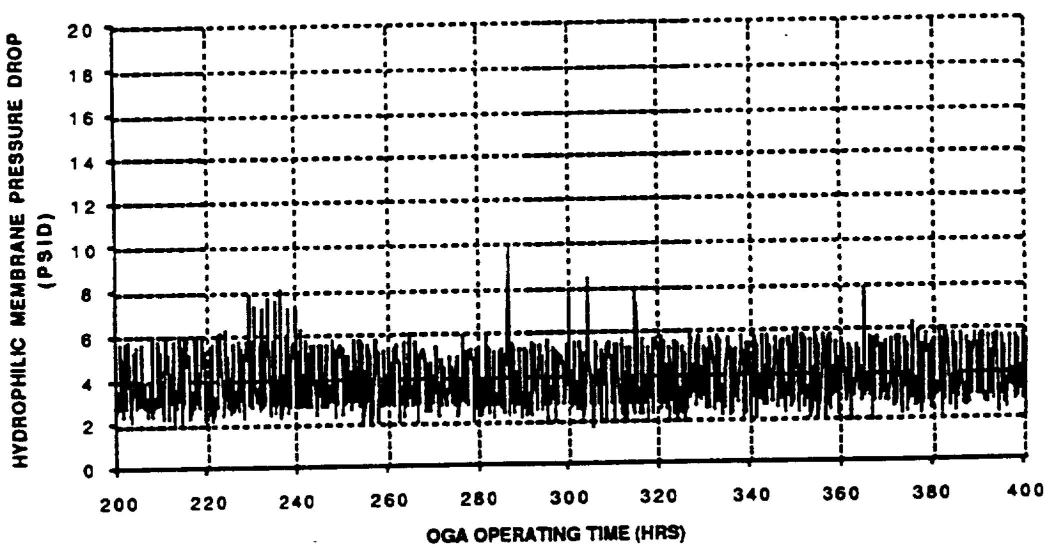
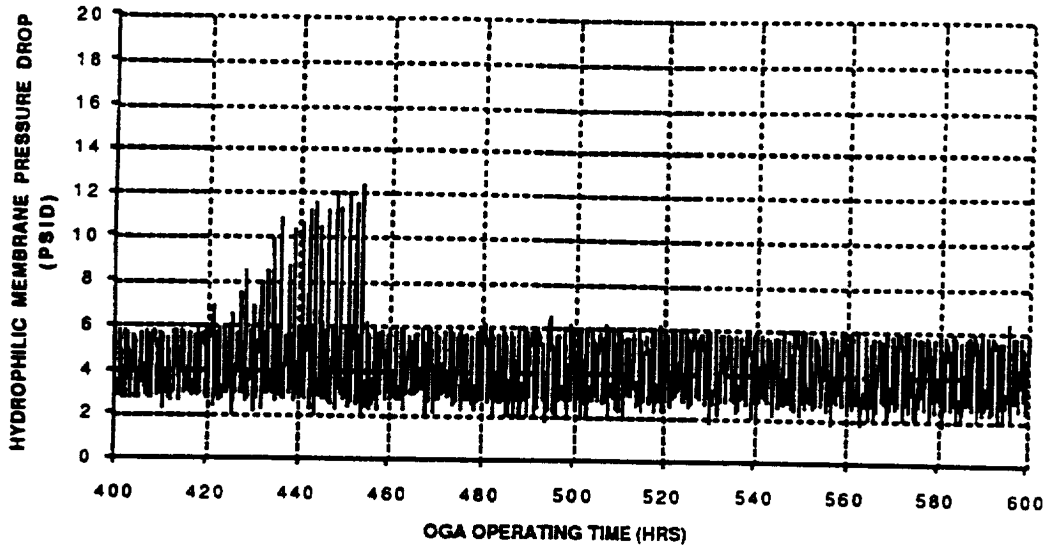


FIGURE 5.3-1
SPE OGA
HYDROGEN PHASE SEPARATOR PERFORMANCE



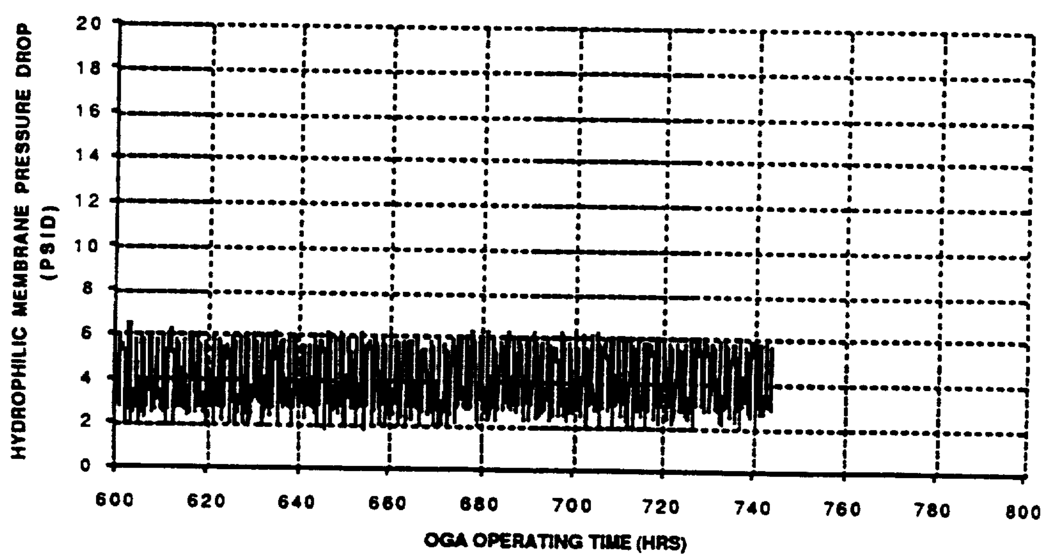
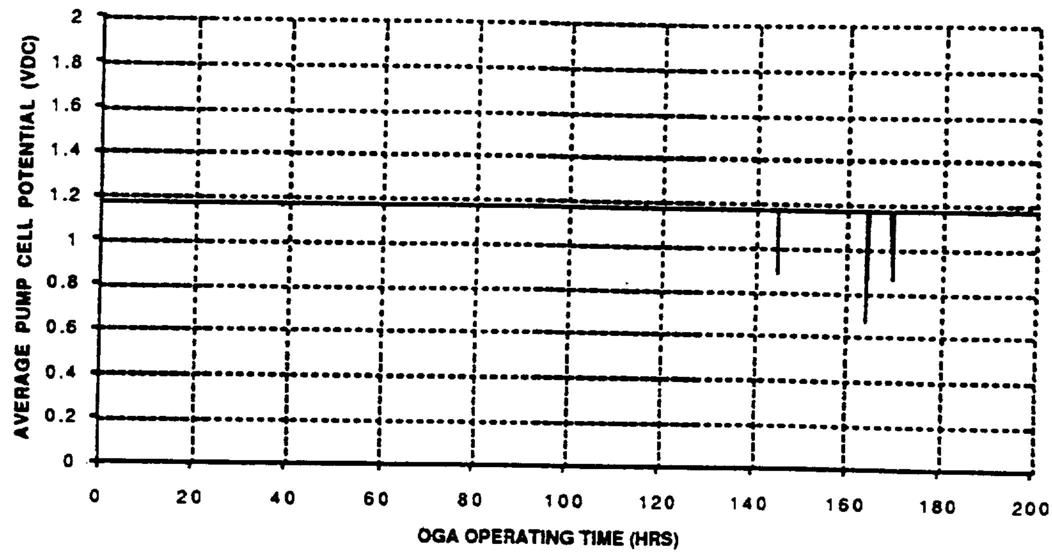


FIGURE 5.3-1 (CONT'D)
SPE OGA
HYDROGEN PHASE SEPARATOR PERFORMANCE

connected to the positive terminal of the electrochemical hydrogen pump cells provided a current path from the charged cells back to the power supply once power was removed from the supply. With voltage present at the contacts of the electrical contactor while the relay was switched, significant arcing occurred resulting in the contactor ultimately failing closed. The circuit was rewired to connect the power supply positive sense line directly to the power supply output line rather than the positive terminal of the hydrogen pump cells, thereby eliminating the current path back to the power supply. Corrections to the power supply control circuit were completed at the 265 hour mark, with satisfactory performance for the remainder of the test program. The average hydrogen pump cell potential and total cell current are presented in Figures 5.3-2 and 5.3-3, respectively. The cell potential is maintained at approximately 1 Vdc by the power supply; the total current typically varies between 0.25 amps for the standby level, and 0.50 amps for full production. Occasional spikes in the current are attributed to the in-rush current associated with charging completely discharged pump cells.

The hydrogen generation pressure is presented in Figure 5.3-4. The hydrogen pressure varies as a function of the generation rate due to the pressure drop across the Item 104-1 check valve, and the error associated with the Item 120 back pressure regulator. At approximately the 265 hour mark, the Item 053 purge valve experienced a shorted coil, resulting in a system shutdown and depressurization. The valve was removed and returned to the vendor to replace the coil and to add a heat sink to the valve housing to reduce the coil operating temperature. While the valve was being repaired, a spare valve was installed in its place and connected to the system plumbing with Teflon hoses. During this time period, the nitrogen inlet valve began cycling because the system nitrogen pressure was decaying. Since the regulator controlling hydrogen pressure is referenced to nitrogen, as the nitrogen pressure dropped the hydrogen pressure followed. In order to prevent the system from experiencing a shutdown due to low hydrogen pressure, the setpoint which controls the opening of the facility nitrogen valve was increased. The Item 053 valve was re-installed into the system at the 375 hour mark; performance of the nitrogen-reference hydrogen pressure control system was satisfactory for the remainder of the test program.



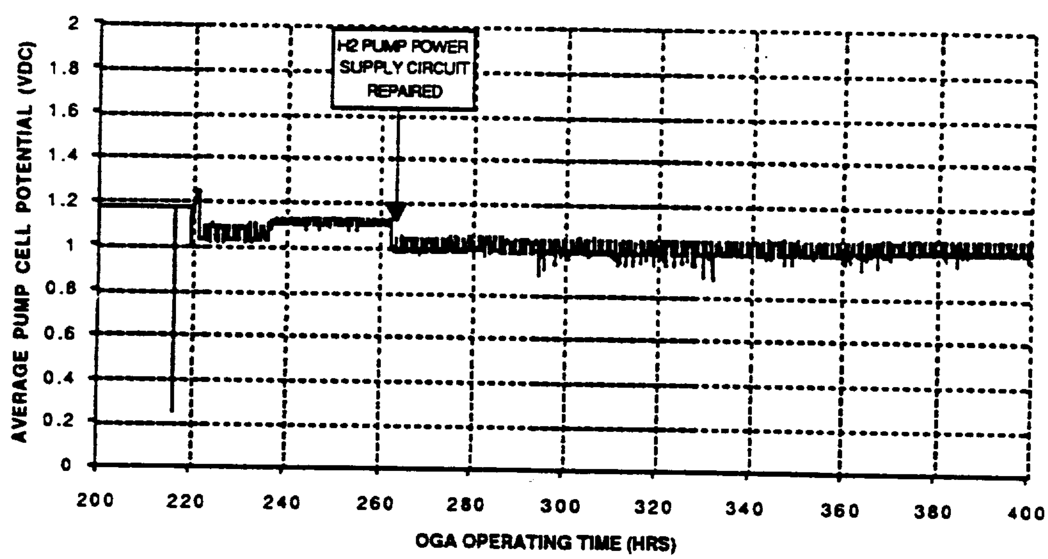
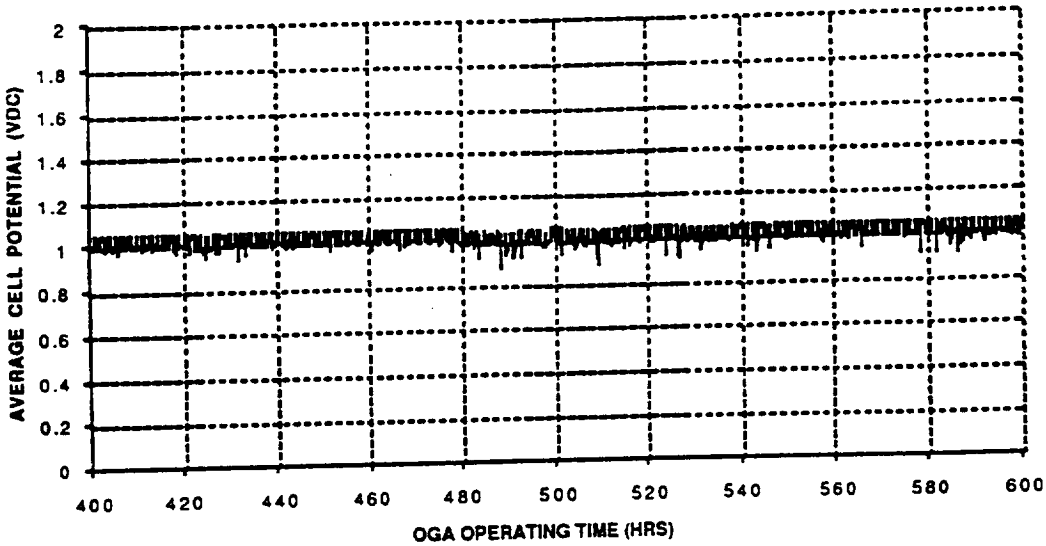


FIGURE 5.3-2
SPE OGA
HYDROGEN PUMP VOLTAGE



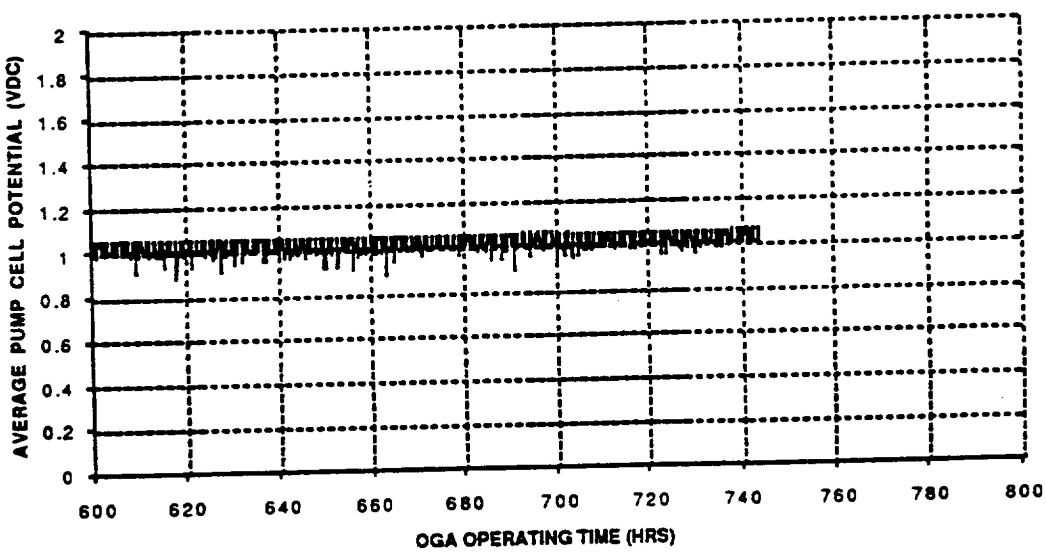
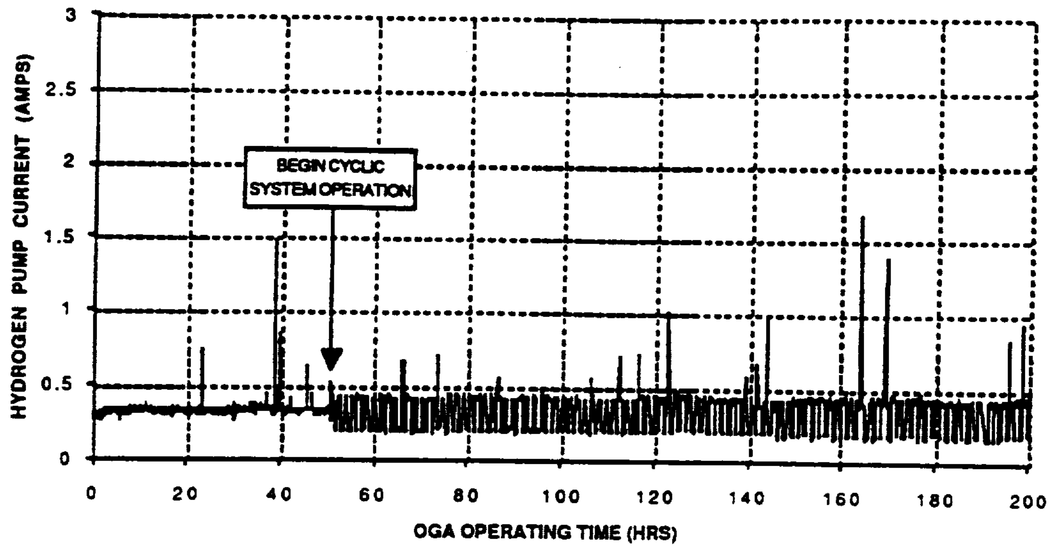


FIGURE 5.3-2 (CONT'D)
SPE OGA
HYDROGEN PUMP VOLTAGE



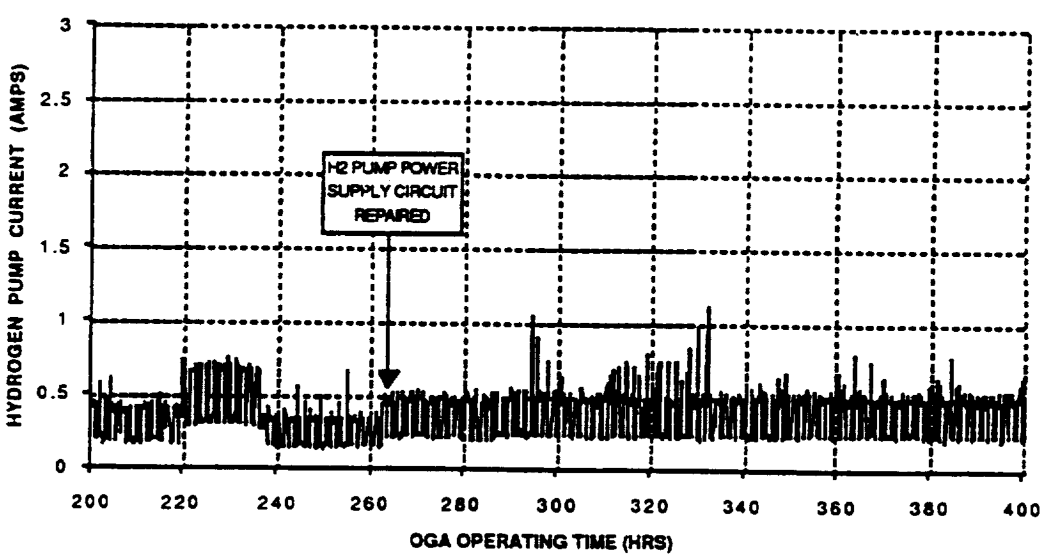
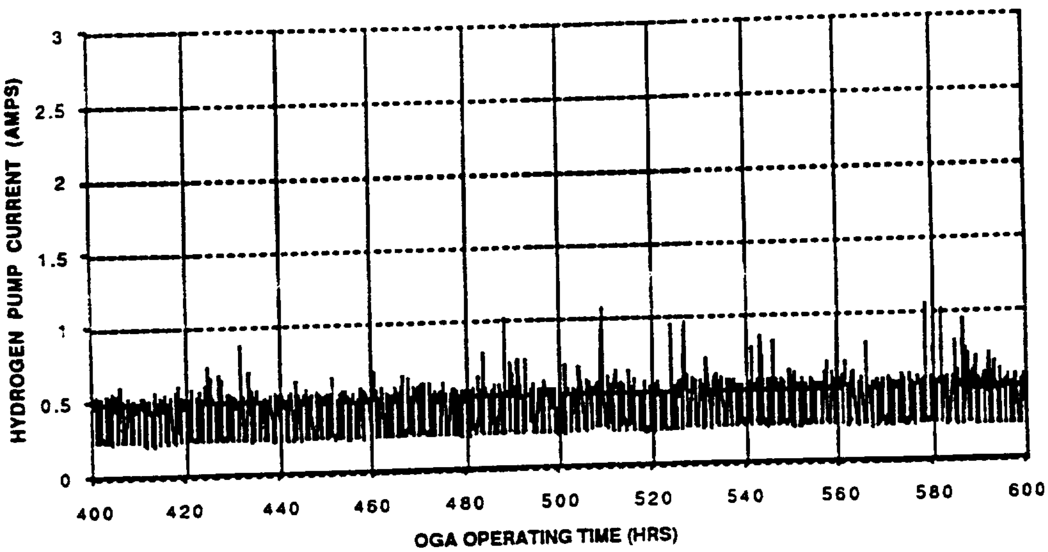


FIGURE 5.3-3
SPE OGA
HYDROGEN PUMP CURRENT



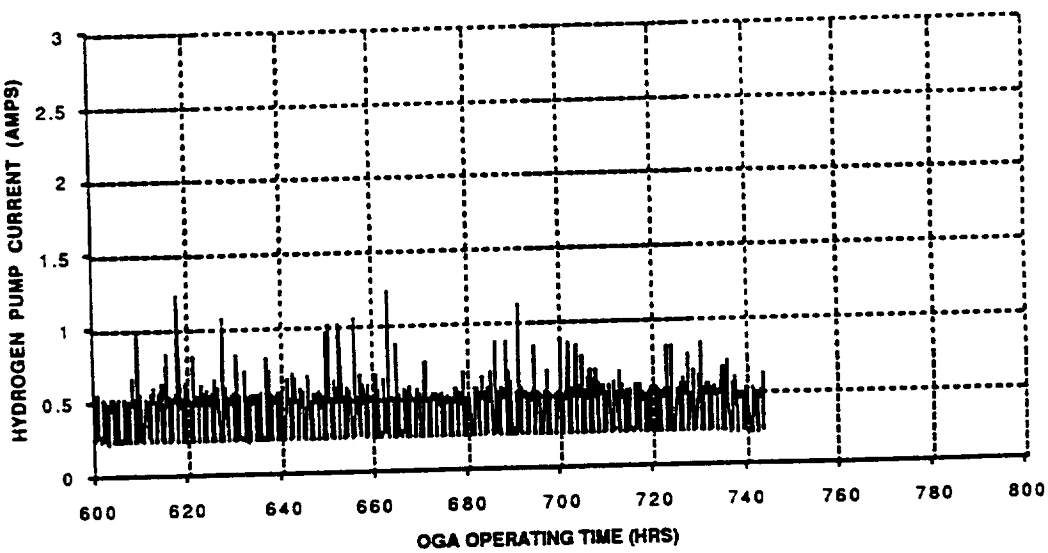
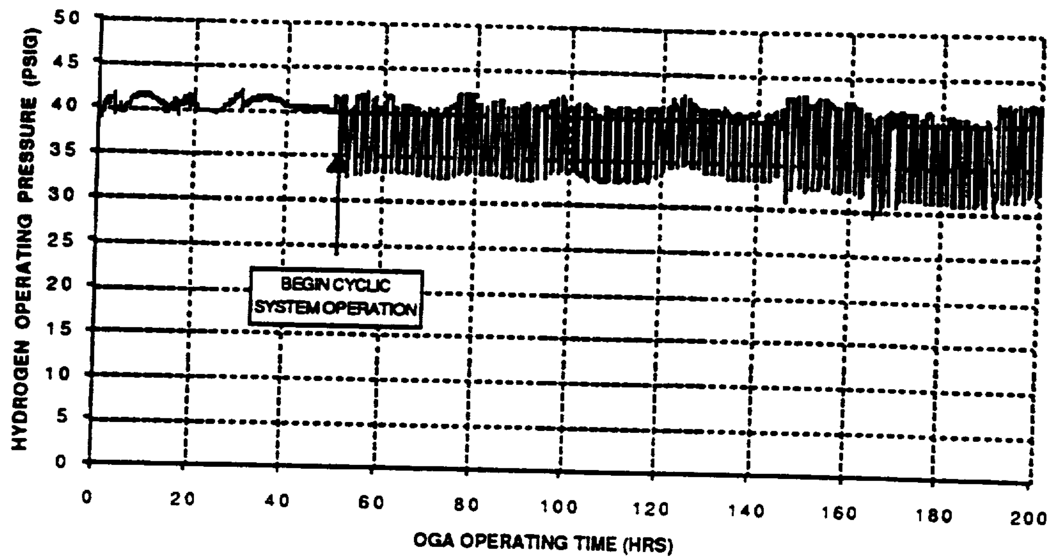


FIGURE 5.3-3 (CONT'D)
SPE OGA
HYDROGEN PUMP CURRENT



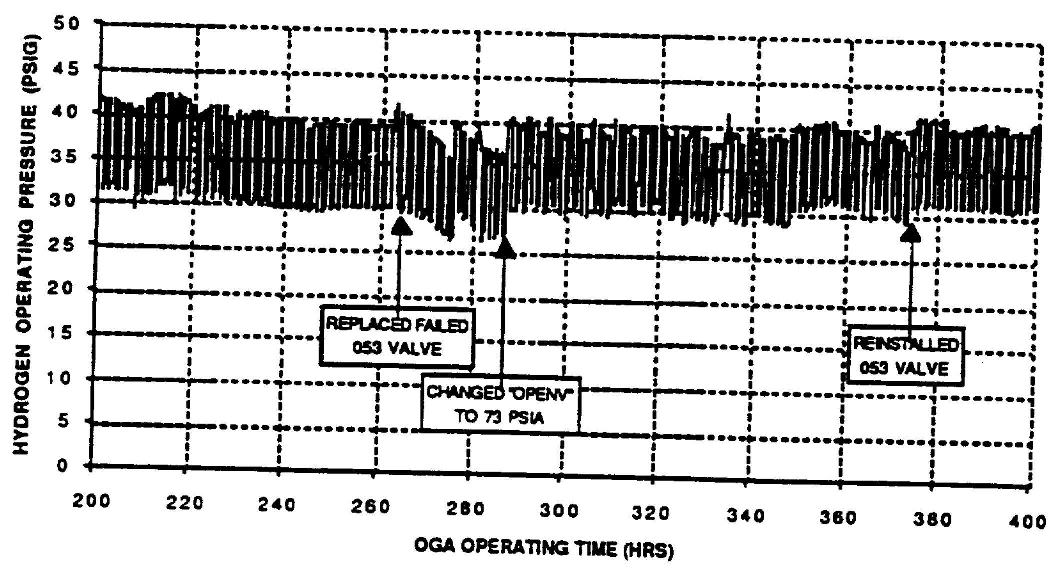
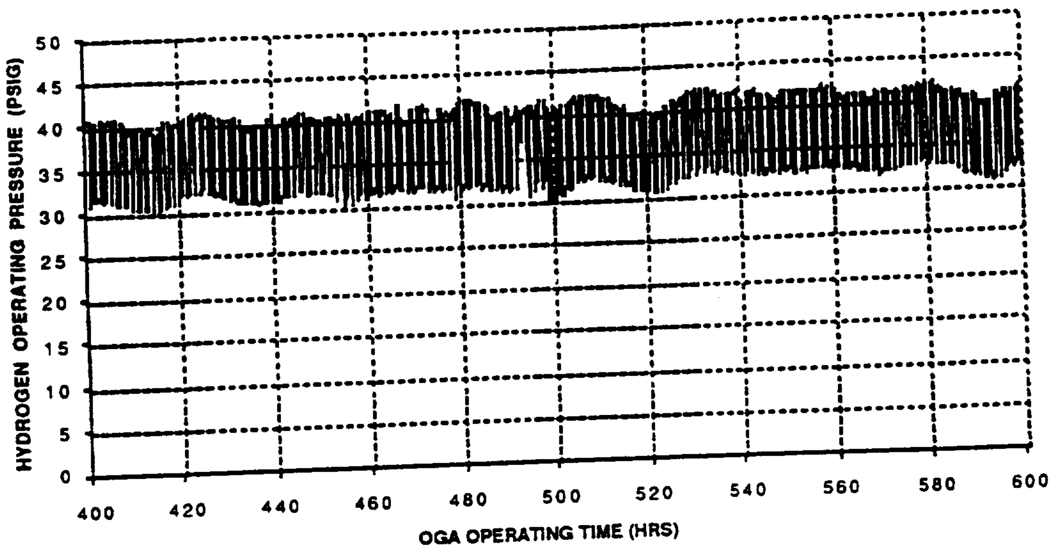


FIGURE 5.3-4
SPE OGA
HYDROGEN PRESSURE



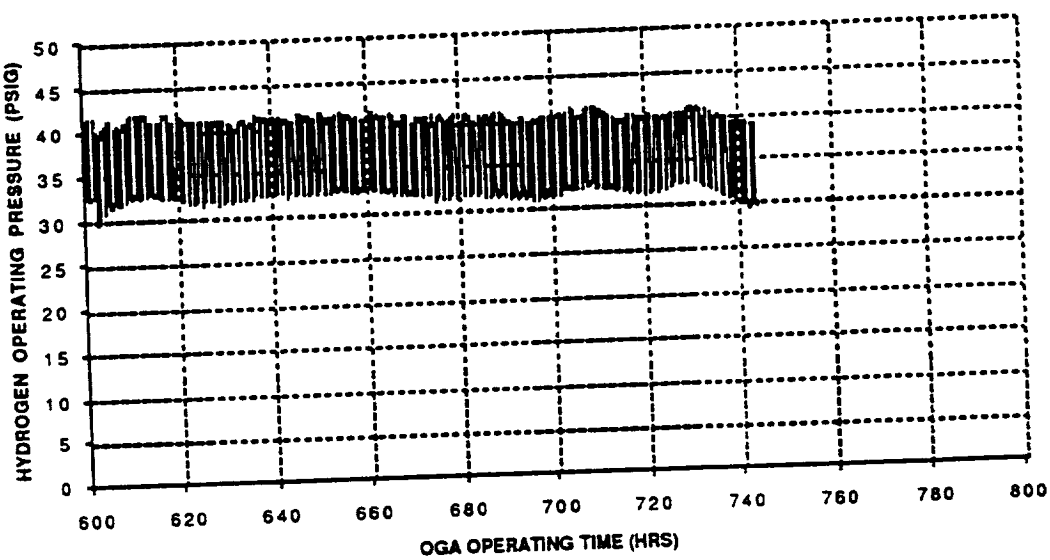


FIGURE 5.3-4 (CONT'D)
SPE OGA
HYDROGEN PRESSURE

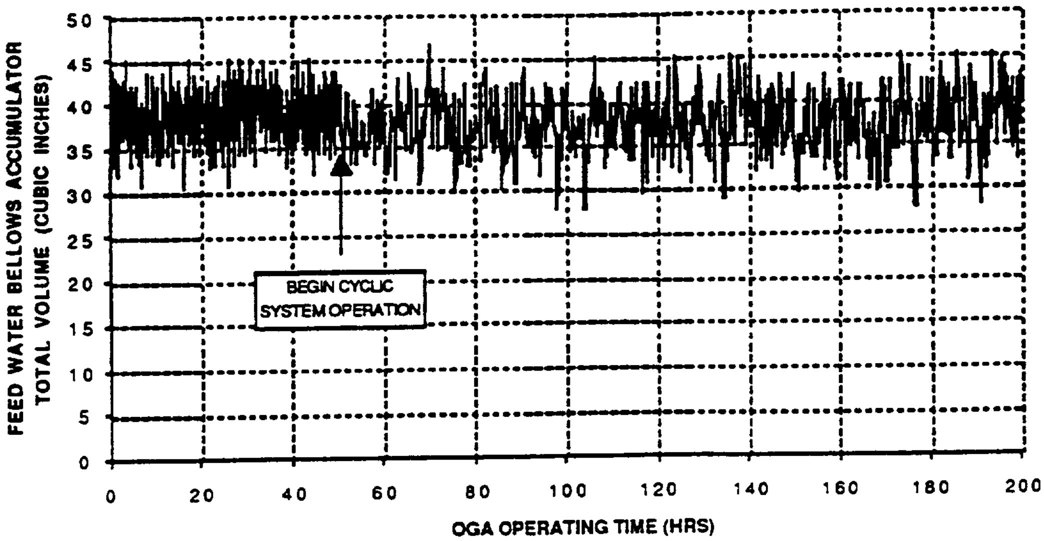
5.4 Feed Water Management

The redundant bellows accumulators (Items 605-1 and -2) manage the feed water from the facility as well as the protonically pumped water from the hydrogen phase separator. In addition, as outlined in the system description section, the fill rates and absolute volume of each tank serve as a method of diagnosing the health of the hydrogen phase separator assembly. During the first 475 hours of operation, the control laws governing operation of these dual accumulators were varied a number of times to try to match actual system performance. The variables that were adjusted included the factor used to calculate the proton water flow rate; the tolerance for the calculated fill rate versus the measured fill rate; the setpoints for introducing feed water into the tanks from the facility; and the maximum volume for each of the tanks. The first two variables were the most difficult to establish since the level sensors for the bellows accumulators, although they provide an analog output signal, take approximately 1 in^3 step changes in their volume readings. During this time, the system experienced a few shutdowns due to improper filling of the bellows accumulators. The final control laws were implemented at the 475 hour mark; the operation of the bellows tanks was flawless for the remainder of the test program. Total water volume managed by the dual accumulators is presented in Figure 5.4-1.

5.5 Electronic Test Data

The software for the Command & Display Unit (CDU) was created to record data both on a line printer and to disk. When recording data to disk, the CDU writes the data to a buffer at the rate of once per second such that, in the event of a system failure, the CDU will record data for the 30 seconds preceding the event. The data from disk can be imported into a spreadsheet program for data manipulation and the generation of trend plots similar to those presented in this report.

During the conduct of this test program, data was recorded at the rate of once per minute to the line printer, and once every 5 minutes to the disk during normal operation. Rather than producing photocopies of the line printer



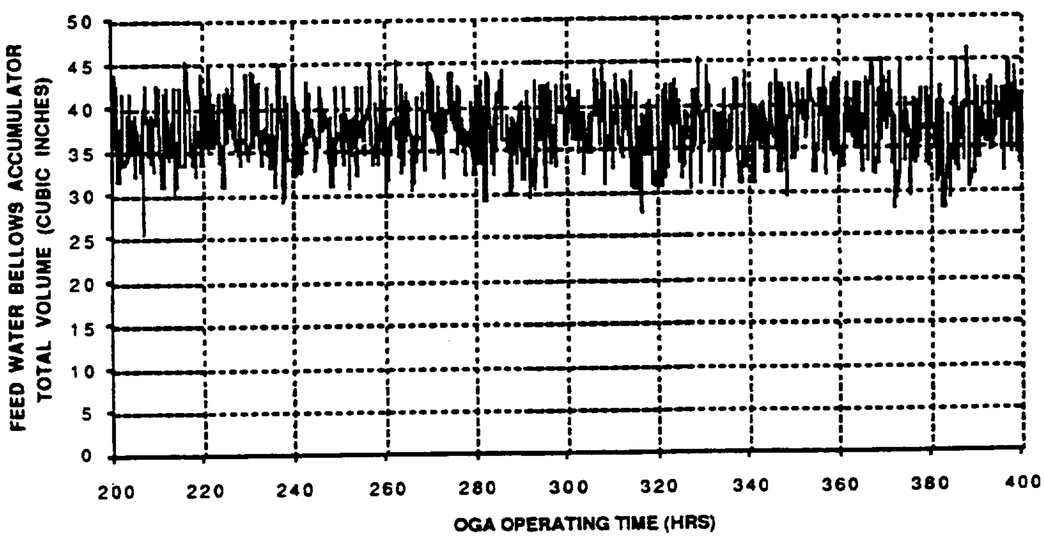
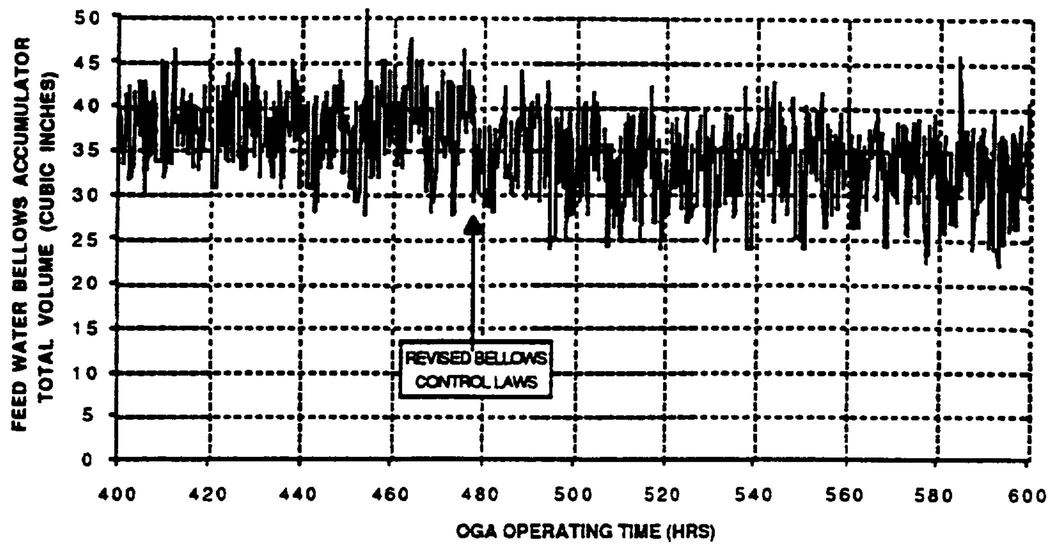


FIGURE 5.4-1
SPE OGA
FEED WATER MANAGEMENT PERFORMANCE



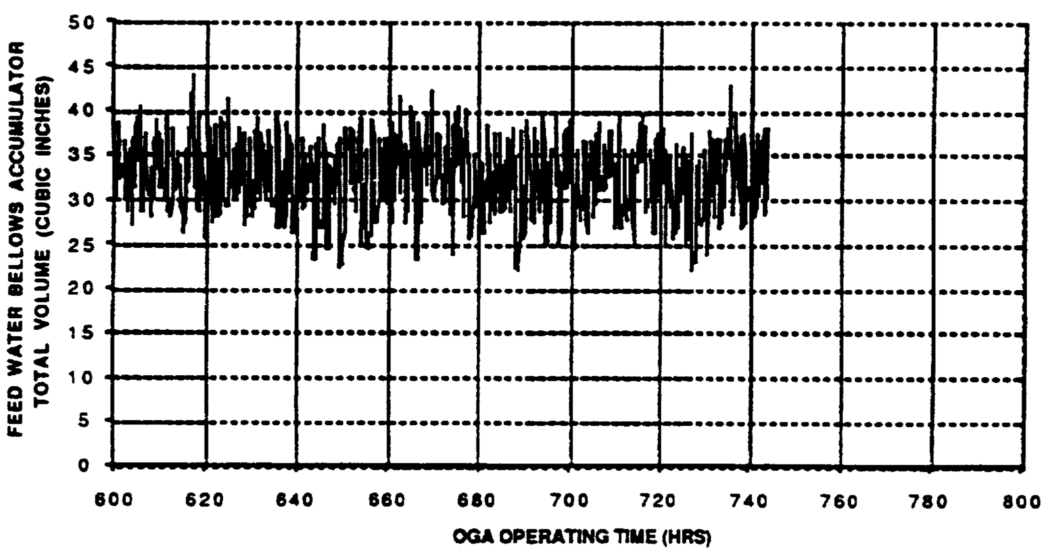


FIGURE 5.4-1 (CONT'D)
SPE OGA
FEED WATER MANAGEMENT PERFORMANCE

data, a set of 8 floppy disks containing the electronic data is being provided as part of this report. The data has been compressed and is stored in self-extracting archives. The self-extracting archives will work with any Macintosh computer model except the 128K and 512K. The extracting computer must be running System File 3.2 or higher, and it must have 313K bytes of free memory available. The files were created using Microsoft Excel 4.0, and compressed using Compact Pro, on a Macintosh II computer operating with System Software 7.0.1.

The data files have been manipulated into two categories: total data and process data. Total data represents all the test data, including data recorded in the PURGE, PROCESS-VENT, PROCESS, and FAILURE states. The process data files only contain data while the system was in the PROCESS state; this data was used in the generation of the trend plots presented in this report. The total data was useful for troubleshooting; however, since it contains all the test data, these data files can be cumbersome to work with.

6.0 FIELD SUPPORT

Hamilton Standard will verify proper installation of the SPE OGA into the NASA/MSFC test bed and will provide on-site support during the test program. This support will be provided primarily by Hamilton Standard personnel resident in Building 4755. In addition, Hamilton Standard personnel based in Windsor Locks, Connecticut, will be available as necessary to provide test support.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The effort to refurbish the SPE Oxygen Generator Assembly has been extremely successful. The system has been revised to eliminate the operational deficiencies present in the original unit, and has successfully implemented other design changes to allow variable, cyclic oxygen generation in order to satisfy the new mission requirements for the ISSA. In particular, the SPE electrolyzer, oxygen/water and hydrogen/water phase separators, the three key elements of the SPE OGA, have demonstrated their unique ability to perform over a wide range of variable operating conditions, and to adjust to those conditions rapidly. Transitions from the light side of the orbit to the dark are made instantaneously, while the reverse direction takes approximately 40 seconds and appears to be only limited by the performance of the back pressure regulator controlling the hydrogen phase separator. During this acceptance test program, the SPE OGA completed approximately 460 cycles simulating the space station orbit, demonstrating flawless performance of these technology items.

Since the goal of this effort was to develop a reliable, robust system that successfully demonstrated the viability and flexibility of the SPE OGA to meet the ISSA requirements, this technology demonstration system did not address other key issues such as weight, volume, or total system power requirements. The progression of the SPE OGA to a flight design could possibly include:

1) Reducing the weight of the cell stack and phase separator compression system, possibly through the use of composite end plates.
2) Reducing the weight of the nitrogen-hydrogen gas management system by eliminating the valve manifold and incorporating an all-welded tube assembly.
3) Reducing the power of ancillary equipment by using latching valve assemblies rather than solenoid valves, and eliminating the feed pump by resizing and redesigning the feed water bellows accumulators.
4) Fine tuning of the pressure control system for the hydrogen phase separator if the present transition rate from dark to light (approximately 40 seconds) is too long.

The refurbished SPE Oxygen Generator Assembly could serve as a test vehicle for evaluation of these and other design concepts that would allow for the steady development of a flight system.

APPENDIX A

MASTER TEST PLAN

FOR

BASELINE TESTING

OF THE

LFSPE OXYGEN GENERATING ASSEMBLY (OGA)

CONTRACT NO. NAS8-38250-23

SEPTEMBER 1994

1.0 OBJECTIVE

The purpose of this Master Test Plan is to define a series of tests to be performed on the LFSPE OGA prior to refurbishment of the unit. The OGA has been returned to Hamilton Standard to correct operational deficiencies identified during field testing of the unit, and to effect hardware and software changes to the system in order for it to be consistent with the most recent requirements for the International Space Station Alpha (ISSA). The tests to be conducted on the unit include reestablishing an operational baseline of key system components, in particular the electrolysis cell stack, the oxygen and hydrogen phase separator, and the fan/heat exchanger assembly. The data from this test program will be compared to that generated during the last baseline test conducted at NASA/MSFC in Building 4755 in December 1990.

2.0 TEST ARTICLE DESCRIPTION

The test article consists of a complete liquid anode feed water electrolysis system including a 12-cell SPE® water electrolyzer, water/oxygen phase separator and hydrogen/water phase separator, and a DC power supply cart with interconnecting cables. The package layout is defined in Hamilton Standard drawing number SVSK116600 Rev. A. Installation of the system into the facility will be in accordance with the Interface Control Document, TDH-ICD/99 Rev. E.

3.0 TEST PLAN

This section defines the tests to be performed on the LFSPE OGA once installation into the facility is complete. At the conclusion of each phase of the test program the test conductor and a separate reviewer will verify, by signature, that the tests were conducted in accordance with the test plan and the results recorded in the test plan were actual measurements. No other review of this test program is planned or anticipated.

3.1 Verify Installation

Prior to operation of the unit, proper installation into the test facility must be verified. For purposes of this test program, oxygen will be allowed to vent to the facility through the oxygen vent interface; hydrogen will be vented to the facility ventilation system through the hydrogen vent interface; DI water will be supplied by the facility DI water system; nitrogen will be supplied by the facility nitrogen farm; electrical power will be supplied by Rig 216 for the 115 Vac, 60 Hz 3 phase power; and 28 Vdc power will be supplied by a separate power supply.

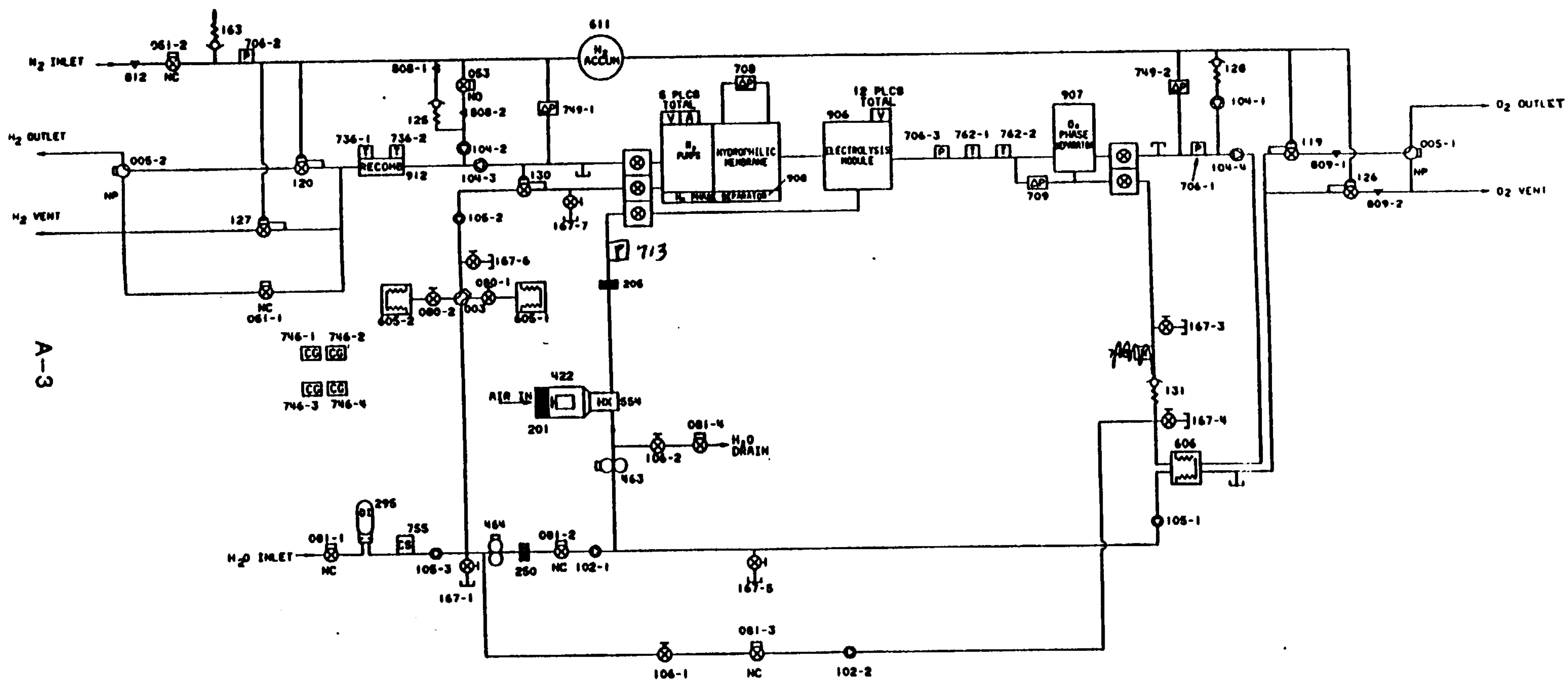
Once installation into the facility is completed, the Command and Display Unit (CDU) software will be loaded into an IBM personal computer which will serve as the CDU. A harness linking the Electrical Interface Box (EIB)

® SPE-Registered trademark of United Technologies Corporation, Hamilton Standard Division

TECHNOLOGY DEMONSTRATOR
LFSPE OXYGEN GENERATION
SUBSYSTEM

PLUMBING SCHEMATIC

(HYDROGEN PHASE SEPARATOR INTEGRAL WITH ELECTROLYSIS MODULE; OXYGEN PHASE SEPARATOR EXTERNAL TO THE MODULE ASSEMBLY)



to the CDU will be installed, and a line printer to record system performance data will be connected to the computer.

Conducted by: ______ 9/19/94 Verified by: ______

3.2 Verify Software Setpoints PASSWORD: 137865

After verifying installation of the LFSPE OGA into the test facility, the unit can now be energized. Electrical power is provided to the system by turning the 115 Vac and 28 Vdc circuit breakers (CB1 and CB3, respectively) located at the top of the EIB to the "ON" position. Initiate the CDU program and verify the system status is in the OFF mode, OFF state, NORMAL status. Select the VIEW OPERATION screen by depressing the F6 key. Verify the values for the setpoints by comparing to the Static Parameters State Table (SYS-15) of the Software Requirements Specification for the LFSPE OGA, TDH-SRS/99 Rev. F (red-lined). A copy of the table is included for reference. Record and resolve any discrepancies between the values in the table and those displayed on the screen.

Conducted by: ______ 9/19/94 Verified by: ______

3.3 Verify Manual Mode PASSWORD: 815649

While in the OFF mode, OFF state, and with the system status NORMAL, select the MODE SELECTION screen by depressing the F3 key. Select the MANUAL mode. Depress the F5 key to select MANUAL OPERATION, and, at the prompt, enter the appropriate password to access the table. Actuate, in order and singularly, the components listed in the table. Deactivate each component upon verification of its proper operation, and record the test results on the hard copy of the MANUAL OPERATION screen included in this test plan. Record and resolve any problems encountered during actuation of any component. Some components may not be actuated in the MANUAL mode should the control laws governing their operation not be satisfied. Refer to the MANUAL MODE DEFINITION section of the SRS (SYS-21) for additional information.

Conducted by: ______ 9/19/94 Verified by: ______

3.4 Baseline Test

A performance test of the LFSPE OGA will be conducted to establish a baseline for the electrolysis cell stack, the water/oxygen and hydrogen/water phase separators, and heat rejection requirements for the recirculating water loop. In addition, the test will verify the integrity of the system

UNITED TECHNOLOGIES
HAMILTON STANDARD

TECHNOLOGY DEMONSTRATOR

SYS - 15

STATIC PARAMETERS STATE TABLE

SYSTEM: LFSPE
COMMENTS:

PARAMETER NAME	UNITS	INV V	POR	POSSIBLE STATE OFF	PURGE	PRCVT	PROC	HOLD	FAIL	
~~WARNT~~	~~DEG F~~	~~INV~~	~~125~~	~~125~~	~~125~~	~~125~~	~~125~~	~~125~~	~~125~~	
~~FAILT~~	~~DEG F~~	~~INV~~	~~130~~	~~130~~	~~130~~	~~130~~	~~130~~	~~130~~	~~130~~	
~~LOWCELL~~	~~VOLTS~~	~~INV~~	~~1.3~~	~~1.3~~	~~1.3~~	~~1.3~~	~~1.3~~	~~1.3~~	~~1.3~~	
HIGHCELL	VOLTS	INV	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
LOWPUMP	VOLTS	INV	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
HIGHPUMP	VOLTS	INV	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
RECOMBT	DEG F	INV	180	180	180	180	180	180	180	
~~TDIFF~~	~~DEG F~~	~~INV~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	
HIGHO2P	PSID	INV	30	30	30	30	30	30	30	
CHECKTIME	MIN	INV	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
HIGHH2P	PSID	INV	72.5	72.5	72.5	72.5	72.5	72.5	72.5	
LOWO2P	PSID	INV	10	10	10	10	10	10	10	
LOWH2P	PSID	INV	47.5	47.5	47.5	47.5	47.5	47.5	47.5	
HIGHN2P	PSIA	INV	208	208	208	208	208	208	208	
AMBPRESS	PSIA	INV	30	30	30	30	30	30	30	
O2FAIL	PSIA	INV	220	220	220	220	220	220	220	
HIGHCOND	uM/CM	INV	10	10	10	10	10	10	10	
VTIME	SEC	INV	20	20	20	20	20	20	20	
N2PTIME	MIN	INV	2	2	2	2	2	2	2	
ACCTIME	MIN	INV	3	3	3	3	3	3	3	
NOMI	AMPS	INV	60	60	60	60	60	60	60	
EMERGI	AMPS	INV	79	79	79	79	79	79	79	CAME UP AS 0; OK FOR NOW
STANDBYI	AMPS	INV	6	6	6	6	6	6	6	
HIGHLIM	PSIA	INV	190	190	190	190	190	190	190	
VENTTIME	MIN	INV	10	10	10	10	10	10	10	
STEPI	SEC	INV	~~5~~	~~5~~	~~5~~	~~5~~	~~5~~	~~5~~	~~5~~	10
INCREMENTI	AMPS	INV	4	4	4	4	4	4	4	
CLOSEV	PSIA	INV	195	195	195	195	195	195	195	
OPENV	PSIA	INV	185	185	185	185	185	185	185	
~~HIGHAMP~~	~~AMPS~~	~~INV~~	~~90~~	~~90~~	~~90~~	~~90~~	~~90~~	~~90~~	~~90~~	
LEAKTIME	MIN	INV	55	55	55	55	55	55	55	
LEAKTIME2	MIN	INV	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
LOWO2SEP	PSID	INV	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	1
HIGHO2SEP	PSID	INV	16	16	16	16	16	16	16	
LOWH2SEP	PSID	INV	2	2	2	2	2	2	2	
HIGHH2SEP	PSID	INV	10	10	10	10	10	14	10	
LOWFLOW	GPM	INV	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
HIGHFLOW	GPM	INV	0.65	0.65	0.65	0.65	0.65	0.65	0.65	
~~LOWPMP~~	~~GPM~~	~~INV~~	~~0.012~~	~~0.012~~	~~0.012~~	~~0.012~~	~~0.012~~	~~0.012~~	~~0.012~~	0.018
~~MEDIUMPMP~~	~~GPM~~	~~INV~~	~~0.015~~	~~0.015~~	~~0.015~~	~~0.015~~	~~0.015~~	~~0.015~~	~~0.015~~	0.021
~~HIGHPMP~~	~~GPM~~	~~INV~~	~~0.018~~	~~0.018~~	~~0.018~~	~~0.018~~	~~0.018~~	~~0.018~~	~~0.018~~	0.024
RECIRC	GPM	INV	0.48	0.48	0.48	0.48	0.48	0.48	0.48	
HIGHSDLEV	CU IN	INV	30	30	30	30	30	30	30	
LOWSDLEV	CU IN	INV	5	5	5	5	5	5	5	
HIGHLEV	CU IN	INV	25	25	25	25	25	25	25	
MEDLEV	CU IN	INV	14.5	14.5	14.5	14.5	14.5	14.5	14.5	
LOWLEV	CU IN	INV	10.5	10.5	10.5	10.5	10.5	10.5	10.5	
HIGHTEMP	DEG F	INV	120	120	120	120	120	120	120	
LOWTEMP	DEG F	INV	115	115	115	115	115	115	115	
DELTIME	MIN	INV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
~~T1~~	~~SEC~~	~~INV~~	~~10~~	~~10~~	~~10~~	~~10~~	~~10~~	~~10~~	~~10~~	
~~T2~~	~~SEC~~	~~INV~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	
T3	SEC	INV	30	30	30	30	30	30	30	
~~T4~~	~~SEC~~	~~INV~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	~~30~~	
T5	SEC	INV	30	30	30	30	30	30	30	
T6	SEC	INV	30	30	30	30	30	30	30	
T7	SEC	INV	10	10	10	10	10	10	10	
T8	SEC	INV	10	10	10	10	10	10	10	
DEPRES1	%	INV	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
~~DEPRES2~~	~~%~~	~~INV~~	~~0.15~~	~~0.15~~	~~0.15~~	~~0.15~~	~~0.15~~	~~0.15~~	~~0.15~~	
DELAY	SEC	INV	30	30	30	30	30	30	30	CAME UP AS 1.0; OK
STARTP	PSIA	INV	50	50	50	50	50	50	50	
H2SEP	MIN	INV	~~1.5~~	~~1.5~~	~~1.5~~	~~1.5~~	~~1.5~~	~~0.5~~	~~1.5~~	3.0
~~VOPEN~~	~~MIN~~	~~INV~~	~~5~~	~~5~~	~~5~~	~~5~~	~~5~~	~~5~~	~~5~~	
PWRDIFF	AMPS	INV	5	5	5	5	5	2	5	
PCNTOPEN	%	INV	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
IMAX	AMPS	INV	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
IHIGH	AMPS	INV	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
H2TIME	SEC	INV	30	30	3[illegible]	30	30	30	30	

```
00000000011111111112222222222333333333344444444445555555555666666666677777777778
12345678901234567890123456789012345678901234567890123456789012345678901234567890
| DATE: XX-XXX-XX            LFSPE OXYGEN GENERATION            TIME: XX:XX:XX      |
| MODE: XXXXXXXXXXXXXXXXXX  STATE: XXXXXXXXXXXXXXXXXXXX  STATUS: XXXXXXXXXXXXXXX   |
|                                                                                  |
| OXYGEN PRODUCTION RATE: XX.XX LB/DAY       HYDROGEN PRODUCTION RATE: X.XX LB/DAY |
| OPERATING TIME: XXXXXX.X HOURS             LAST 606 LEVEL: X                     |
|                        CURRENT                                                   |
|         V003           XXXXXXXXXXXX            SELECTION                         |
|         V005-1         XXXXXXX             |FILL1/DRAIN2|  FILL2/DRAIN1  OK      |
|         V005-2         XXXXXXX              VENT           PRODUCT  DISABLED     |
|         V051-1         XXXXXX               VENT           PRODUCT  DISABLED     |
|         V051-2         XXXXXX               CLOSED         OPEN  OK              |
|         V053           XXXXXX               CLOSED         OPEN  OK, BUT SEE NOTE (053 OPENED AT 30 PSIA - OK)
|         V061-1         XXXXXX               OPEN           CLOSED  OK            |
|         V061-2         XXX                  CLOSED         OPEN  OK; CLOSED WHEN LEV605-1 ≥ 15 in
|         V061-3         XXXXXX               CLOSED         OPEN  OK              |
|         V061-4         XXXXXX               CLOSED         OPEN  OK              |
|         FAN422         XXX                  CLOSED         OPEN  OK              |
|         PMP463         XXX                  OFF            ON  OK                |
|         PMP464         XXXXXX               OFF            ON  OK                |
| ANOMALY: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX OFF            ON  OK                |
| ADVICE:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
|          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| [F1] PAGE                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| [F2] SUBSYSTEM PARA     [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE    [10] MODIFY OPER  |
| [F3] MODE SELECTION     [F5] MANUAL OPER    [F8] DATA LOGGING                     |
|                         [F6] VIEW OPER      [F9] EXIT              PAGE 1 OF 1    |
00000000011111111112222222222333333333344444444445555555555666666666677777777778
12345678901234567890123456789012345678901234567890123456789012345678901234567890
```

NOTE: V051-2 APPEARS TO BE LEAKING; WITH VALVE CLOSED AND N_2 AT INTERFACE = 220 PSIG, OBSERVED P706-2, P749-1, P749-2 INCREASING

SUBSEQUENT NOTE: AFTER CYCLING V051-2 A NUMBER OF TIMES, THE LEAK APPEARED TO GO AWAY. VALVE SEAT MAY HAVE HAD SOME CONTAMINATION, OR HAD TAKEN A SET DURING LONG TERM STORAGE. IN ANY EVENT, THE VALVE FUNCTION APPEARS TO BE OK.

SYS - 21

MANUAL MODE DEFINITION

SYSTEM: LFSPE
COMMENTS:

(1) Power supply and power supply current are not allowed to be activated in the MANUAL mode; specifically PWR785, CNTL785, PS796 and PS797. All other devices can be altered manually.

(2) The recirculating water pump, PMP463, and the feed water pump, PMP464, may be turned ON/OFF in the MANUAL mode. However, the following rules apply:

(a) If PMP464 = "ON" then:
PMP463 = "ON"
CNTL464 = "LOWPMP"
CNTL463 = "RECIRC"
V081-2 = "OPEN"

(b) If PMP464 = "OFF" then CNTL464 = 0.0 and V081-2 = "CLOSED".

(c) If PMP463 = "ON" then CNTL463 = "RECIRC"

(d) If the operator commands PMP463 = "OFF", the operator must manually set PMP464 = "OFF" first. If PMP464 = "OFF", then set CNTL464 = 0.0 and V081-2 = "CLOSED"; if PMP463= "OFF" then CNTL463 = 0.0.

(e) While any of LEV606-4 thru -7 = "ON", then operator commands for PMP464 should be overridden by PMP464 = "OFF", CNTL464 should be set to 0.0 and V081-2 = "CLOSED".

(3) Upon entering the MANUAL mode, if V003 position is unknown due to a cold software start (the last known position of the valve is lost from memory), then PMP464 = "OFF", CNTL464 = 0.0, V081-2 = "CLOSED" and V081-1 = "OPEN".

(a) If LEV605-1 increases by 0.5 cubic inches, set V003 position to FILL2/DRAIN1 and all associated variables to FILL2/DRAIN1, and command V081-1 = "CLOSED".

(b) If LEV605-2 increases by 0.5 cubic inches, set V003 position to FILL1/DRAIN2 and all associated variables to FILL1/DRAIN2, and command V081-1 = "CLOSED".

SYS - 21

MANUAL MODE DEFINITION

SYSTEM: LFSPE
COMMENTS:

(4) The feed water inlet solenoid valve, V081-1, may be OPEN/CLOSED in the MANUAL mode. However, the following rules apply to prevent over extension of the feed water bellows accumulators, Items 605-1 and 605-2.

After the position of V003 is determined:

(a) If V003 = "FILL1/DRAIN2" and

(i) If LEV605-2 < = "LOWLEV" then command V081-1 = "OPEN"

(ii) If LEV605-2 > = "MEDLEV" then command V081-1 = "CLOSED"

(b) If V003 = "FILL2/DRAIN1" and

(i) If LEV605-1 < = "LOWLEV" then command V081-1 = "OPEN"

(ii) If LEV605-1 > = "MEDLEV" then command V081-1 = "CLOSED"

(5) The water purging valves, V081-3 and V081-4, may be OPEN/CLOSED in the MANUAL mode. However, the following rules apply:

(a) If V081-3 = "OPEN", set V081-4 = "OPEN".
(b) If the operator commands V081-4 = "CLOSED", the operator must manually set V081-3 = "CLOSED" first.

(6) The nitrogen inlet valve, V051-2, and the system nitrogen purge valve, V053, may be OPEN/CLOSED in the MANUAL mode. However, the following rule applies to prevent pressurizing the system:

(a) If P706-2 > = "AMBPRESS" psia, then set V053 = "OPEN".

loop. In addition, the test will verify the integrity of the system instrumentation and all actuated components prior to system refurbishment. Any malfunctioning component will be identified and repaired or replaced as necessary.

During the baseline test, a line printer will be connected to the CDU to record key operational data such as electrolysis cell potentials, phase separator membrane pressure drop and cell stack temperature rise. The data will be used, in part, as a baseline to determine the effectiveness of the system refurbishment.

Initiate baseline testing of the system by accessing the MODE SELECTION screen (depress the F3 key) and selecting the ON mode. The system will transition from the OFF mode OFF state to the ON mode PURGE state. Refer to the SRS to verify proper sequencing of components within the system during the PURGE state. Record any discrepancies observed while in the PURGE state, particularly operation of the recirculation pump, Item 463, and the recirculation loop bellows accumulator, Item 606. Operation of these two components to effectively purge the recirculation loop of gas during start-up was ineffective during testing of the unit at NASA/MSFC.

After satisfying the requirements of the PURGE state, the system will transition to the PROCESS-VENT state. At this point, the electrolysis power supplies are activated and DC power is supplied to the cell stack. Pressurization of the oxygen and hydrogen circuits in the system coincides with gas generation. Record any discrepancies observed while in the PROCESS-VENT state, particularly the quality of the hydrogen vent line. During testing of the unit at NASA/MSFC, a significant quantity of water was present in the delivery line at low hydrogen operating pressures. Monitor cell potentials and pressure differentials across both phase separators once gas generation has begun.

Once the requirements of the PROCESS-VENT state are satisfied, the system will transition to the PROCESS state. Since the 3-way solenoid valves that redirect the flow of the product gases from the VENT interface to the OUTLET interface failed during testing in the field, there is no change in the system status when going from these two states. Once in the PROCESS state, select the CONFIGURATION CONTROL screen by depressing the F4 key and select the EMERGENCY setting. Verify the current to the electrolysis cell stack increases from 60 amps to 79 amps. Return to the CONFIGURATION CONTROL screen, and return the system setting to NORMAL. Operate the unit at both the NORMAL and EMERGENCY settings for sufficient time to observe any trends in performance of key system components, such as cell potentials and phase separator membrane pressure drop. Continue to record test data on the line printer for the duration of the baseline test program.

Conducted by: Robert J. Roy Verified by: Lawrence P. Moulthrop

COMPLETED: 9/28/94

TABLE 3.4-1

BASELINE TESTING DISCREPANCIES AND RESOLUTIONS

Date	Discrepancy	Resolution
9-19-94	• HIGH I908 CURRENT SHUTDOWN @ 10:52:41	RE-START; POSSIBLY H_2 LEFT IN CELL AFTER LONG TERM STORAGE
	• HIGH I908 CURRENT SHUTDOWN @ 11:41:57	RE-START; SAME AS ABOVE
	• HIGH I908 CURRENT SHUTDOWN @ 12:14:12	RE-START; SAME AS ABOVE
	• HIGH I908 CURRENT SHUTDOWN @ 12:44:47	RE-START; INCREASE SETPOINT TO 2 AMPS
	• HIGH CELL VOLTAGE SHUTDOWN @ 13:07:06	RE-START; INCREASE SETPOINT TO 2.5 Vdc (FROM 2.1 Vdc)
	• REACHED PROC-VENT STATE AT 13:50:38; NOTICED THAT I908 SENSE CELL CURRENT CONTINUED TO CLIMB; STRIPPER CELL CURRENTS (I768-1 THRU -4) STAYED IN THE NOISE LEVEL	• CHECK OPERATION OF STRIPPER CELLS POWER SUPPLY; CHECK OPERATION OF STRIPPER RAMPING CIRCUIT. (NOTE: INSTALLED SEPARATE POWER SUPPLY FOR STRIPPER CELLS).
9-20-94	• LOW CELL VOLTAGE @ 10:32:46; BREAKER IN EIB WAS SET TO "OFF" POSITION	• TURN BREAKER "ON"
	• LONG PURGE STATE DUE TO INADEQUATE PRIMING	• TO BE CORRECTED AS PART OF THE SYSTEM REFURBISHMENT
	• HIGH ITEM 606 LEVEL @ 11:17:46	• BELLOWS TANK LEVEL CONTROL WILL NEED TO BE MODIFIED TO ALLOW FOR RAPID EXPANSION DURING TRANSITION FROM DARK TO LIGHT CYCLE.
	• ATTEMPTED TO RE-START; DRAIN WATER FROM LOOP TO REDUCE BELLOWS TANK LEVEL (SEE ABOVE).	• DRAINED TOO SOON; MUST WAIT UNTIL TIMER NLPTIME HAS STARTED.
	• ACHIEVED (SUCCESSFULLY) PROC-VENT STATE @ 15:58:21; STRIPPER CELLS CURRENT RISING STEADILY; I908 APPEARS OK.	• STRIPPER CELL POWER SUPPLY FAILED; NEED TO CORRECT RAMPING CIRCUIT (CURRENT CONTROL) AND INSTALL NEW PERMANENT SUPPLY.

TABLE 3.4-1

BASELINE TESTING DISCREPANCIES AND RESOLUTIONS

Date	Discrepancy	Resolution
9-22-94	• ACHIEVED PROCESS STATE AT 9:21:55; OBSERVED NO DISCREPANCY REGARDING FAN/HEX PERFORMANCE.	—
	• SHUTDOWN @ 17:06:47 DUE TO LACK OF FACILITY DI WATER	• DI WATER SHUT-OFF OVERNIGHT; WILL ADVISE PERSONNEL TO LEAVE WATER "ON".
	• OBSERVED NO T908 HIGH LEVEL WARNINGS ON S/D'S.	—
9-23-94	• HIGH ITEM 606 LEVEL S/D @ 09:26:59	• SEE 9-20-94, 11:17:46
9-24-94	• LOW ITEM 606 LEVEL S/D @ 14:26:32	• POSSIBLY WORN GEARS IN FEED PUMP; INCREASE PUMP SPEED AND OBSERVE ANY FUTURE OCCURRENCES.
9-25-94	• TRIED TO RE-START AFTER S/D OF 9-24-94 @ 14:26:32; UNABLE TO WITHOUT ANY ASSISTANCE TO DRAIN LOOP	• WAIT FOR ADDITIONAL LAB PERSONNEL ON 9-26-94
9-26-94	• FACILITY POWER FLICKERED, CAUSING S/D @ 08:30:58	• RE-START
	• S/D @ 10:08:09 DURING CHANGE OF FEED PUMP SPEED SETTING	• RE-START; EXAMINE EZB COMMUNICATIONS DURING SYSTEM REFURBISHMENT
	• S/D @ 14:53:29 DURING CHANGE OF FEED PUMP SPEED SETTING	• SEE ABOVE
	• TWO RE-STARTS RESULTED IN LOW H_2 SEPARATOR ΔP S/D'S	• RE-EXAMINE SETPOINT VALUES FOR NEW SEPARATOR CONFIGURATION IN REFURBISHED SYSTEM.
	• NOTE: COLLECTED 35 CC AND 40 CC OF WATER DURING TWO OF THE START-UPS IN THE H_2 DELIVERY LINE	• SEPARATOR CONFIGURATION TO BE MODIFIED TO PRECLUDE WATER CARRY-OVER DURING START-UP.

TABLE 3.4-1

BASELINE TESTING
DISCREPANCIES AND RESOLUTIONS

Date	Discrepancy	Resolution
9-27-94	• S/D @ [illegible] WHILE CHANGING SETPOINTS FOR N2 REFERENCE (SET REFERENCE FOR 100 PPM OPERATION).	• SEE 9-30-94, 10:08:09
	• HIGH ITEM [illegible] LEVEL S/D @ 08:40:17	• SEE 9-30-94, 11:17:46
	• SET TO "EMERGENCY" MODE @ 13:12:05 CURRENT INCREASED FROM 60 AMPS TO 79 AMPS.	—
	• OBSERVED [illegible] VOLTAGE	• LOOSE CONNECTOR DISCOVERED IN ETB DURING POST TEST INSPECTION
	• OBSERVED I908 REMAINED AT 0.000 DURING MAJORITY OF TEST ON 9-27-94 & 9-28-94	• WILL NEED TO TROUBLESHOOT ONLY IF SENSE CELL FUNCTION REMAINS IN REFURBISHED UNIT.
	• OBSERVED NO DISCREPANCY AT 79 AMPS WITH FAN/HEX PERFORMANCE	—
9-28-94	• RETURNED UNIT TO "NORMAL" MODE @ 08:34:58 (CURRENT DECREASED FROM 79 AMPS TO 60 AMPS).	—
	• TOTAL TIME IN PROCESS: 56.9 HOURS	

SSPF OXYGEN GENERATION

DATE TIME ANOM STATE	O2 PROD	H2 PROD	UPTIME	LLEV-606	CELLAVG	P706-1	P706-2	P706-3	DP709	DP708	DP749-1	DP749-2	T742-1	T736-1	CALC745	LEV605-1	LEV605-2	I766	H2V768-1	H2V768-2	H2V768-3	H2V768-4	H2V908	I748-1	I748-2	I748-3	I748-4	I908
	LB/DAY	LB/DAY	HOURS		V	PSIA	PSIA	PSIA	PSID	PSID	PSID	PSID	F	F	GPM	CM IN	CM IN	AMPS	V	V	V	V	V	A	A	A	A	A
19-SEP-94 09:57:43 500 OFF	0.00	0.00	0.0	0	0.000	14	20	14	0.20	0.00	5	5	71	70	0.00	14.0	16.4	-1	0.004	0.002	0.004	0.000	0.000	0.004	0.002	0.004	0.039	0.035
19-SEP-94 09:58:43 500 OFF	0.00	0.00	0.0	0	0.000	14	21	15	0.19	0.00	5	4	71	70	0.00	14.0	16.4	-1	0.004	0.002	0.002	0.002	0.000	0.004	0.009	0.001	0.042	0.045
19-SEP-94 09:59:42 500 OFF	0.00	0.00	0.0	0	0.000	14	21	15	0.20	0.00	6	7	71	70	0.00	14.0	16.4	-0	0.002	0.004	0.004	0.001	0.000	0.005	0.006	0.002	0.044	0.040
19-SEP-94 10:00:43 500 OFF	0.00	0.00	0.0	0	0.000	13	20	15	0.19	0.00	5	5	70	70	0.00	14.0	16.4	-1	0.002	0.001	0.002	0.002	0.000	0.005	0.006	0.002	0.043	0.039
19-SEP-94 10:01:43 500 OFF	0.00	0.00	0.0	0	0.000	14	20	15	0.10	0.00	5	5	71	70	0.00	14.0	16.4	-1	0.001	0.001	0.002	0.001	0.000	0.004	0.006	0.004	0.040	0.022
19-SEP-94 10:02:43 500 OFF	0.00	0.00	0.0	0	0.000	14	22	15	0.17	0.00	6	7	71	70	0.00	14.0	16.4	-1	0.002	0.002	0.002	0.000	0.000	0.004	0.009	0.002	0.037	0.020
19-SEP-94 10:03:43 500 OFF	0.00	0.00	0.0	0	0.000	14	26	15	0.10	0.00	10	11	71	70	0.00	13.9	16.4	-1	0.001	0.002	0.006	0.001	0.000	0.005	0.006	0.006	0.043	0.024
19-SEP-94 10:04:43 500 OFF	0.00	0.00	0.0	0	0.000	14	19	15	0.20	0.00	4	4	71	70	0.00	13.9	16.4	-0	0.002	0.001	0.001	0.000	0.000	0.007	0.007	0.005	0.039	0.041
19-SEP-94 10:05:42 500 OFF	0.00	0.00	0.0	0	0.000	15	18	15	0.20	0.00	3	4	71	70	0.00	15.1	16.5	-1	0.004	0.004	0.001	0.001	0.000	0.005	0.006	0.004	0.042	0.022
19-SEP-94 10:06:42 500 OFF	0.00	0.00	0.0	0	0.000	14	19	15	0.15	0.00	3	4	71	70	0.00	15.2	16.4	-1	0.004	0.001	0.004	0.001	0.000	0.004	0.004	0.005	0.044	0.039
19-SEP-94 10:07:43 500 OFF	0.00	0.00	0.0	0	0.000	15	19	15	0.12	0.00	3	3	70	70	0.00	12.7	16.4	-1	0.002	0.002	0.004	0.001	0.000	0.002	0.002	0.002	0.037	0.038
19-SEP-94 10:08:42 500 OFF	0.00	0.00	0.0	0	0.000	16	19	16	0.11	0.00	3	2	70	70	0.00	15.1	16.4	-1	0.004	0.001	0.001	0.001	0.000	0.004	0.006	0.004	0.044	0.039
19-SEP-94 10:09:42 500 OFF	0.00	0.00	0.0	0	0.000	16	18	17	0.07	0.00	3	2	70	70	0.00	11.4	16.5	-0	0.002	0.004	0.005	0.001	0.000	0.004	0.005	0.006	0.034	0.018
19-SEP-94 10:10:42 500 OFF	0.00	0.00	0.0	0	0.000	16	19	17	0.09	0.00	3	1	70	71	0.00	14.0	16.5	-1	0.001	0.001	0.002	0.001	0.000	0.002	0.005	0.004	0.042	0.024
19-SEP-94 10:11:43 500 OFF	0.00	0.00	0.0	6	0.000	16	18	17	0.09	0.00	4	1	69	71	0.00	15.2	16.4	-0	0.001	0.002	0.002	0.001	0.000	0.005	0.009	0.004	0.038	0.022
19-SEP-94 10:12:42 500 OFF	0.00	0.00	0.0	6	0.000	17	19	17	0.08	0.00	4	2	69	70	0.00	12.6	16.3	-1	0.001	0.004	0.002	0.001	0.000	0.006	0.004	0.006	0.043	0.020
19-SEP-94 10:13:42 500 OFF	0.00	0.00	0.0	6	0.000	17	19	17	0.22	0.00	4	2	70	70	0.00	11.4	16.5	-1	0.001	0.002	0.004	0.002	0.000	0.002	0.005	0.005	0.040	0.039
19-SEP-94 10:14:42 500 OFF	0.00	0.00	0.0	6	0.000	16	19	19	0.06	0.00	3	2	69	70	0.00	11.5	16.4	-0	0.002	0.001	0.002	0.001	0.000	0.004	0.004	0.005	0.045	0.024
19-SEP-94 10:15:42 500 OFF	0.00	0.00	0.0	6	0.000	15	19	22	1.62	0.00	3	3	69	71	0.15	16.5	16.4	-0	0.002	0.002	0.004	0.000	0.000	0.005	0.007	0.002	0.038	0.033
19-SEP-94 10:16:42 500 OFF	0.00	0.00	0.0	6	0.000	15	19	20	1.70	0.00	3	4	69	71	0.09	16.4	16.4	-0	0.002	0.005	0.004	0.001	0.000	0.004	0.005	0.004	0.040	0.040
19-SEP-94 10:17:42 500 OFF	0.00	0.00	0.0	6	0.000	15	19	20	1.70	0.00	4	3	69	70	0.03	16.5	16.4	-1	0.004	0.002	0.004	0.001	0.000	0.004	0.004	0.002	0.039	0.024
19-SEP-94 10:18:42 500 OFF	0.00	0.00	0.0	6	0.000	15	19	19	1.77	0.00	3	3	69	71	0.09	16.5	16.5	-0	0.001	0.002	0.001	0.000	0.000	0.004	0.005	0.004	0.039	0.022
19-SEP-94 10:19:42 500 OFF	0.00	0.00	0.0	5	0.000	15	19	19	1.80	0.00	4	3	69	71	0.07	16.4	16.5	-1	0.001	0.002	0.004	0.001	0.000	0.004	0.009	0.002	0.037	0.018
19-SEP-94 10:20:42 500 OFF	0.00	0.00	0.0	4	0.000	15	19	19	1.75	0.00	4	3	69	71	0.00	16.5	16.4	-1	0.004	0.001	0.002	0.001	0.000	0.006	0.007	0.002	0.040	0.040
19-SEP-94 10:21:42 500 OFF	0.00	0.00	0.0	4	0.000	13	19	13	0.31	0.00	3	6	70	71	0.21	16.5	16.3	-1	0.002	0.002	0.004	0.002	0.000	0.004	0.006	0.005	0.038	0.026
19-SEP-94 10:22:42 500 PURGE	0.00	0.00	0.0	4	0.007	13	19	14	0.20	0.00	3	6	70	71	0.10	15.2	16.4	-1	0.049	0.052	0.021	0.044	0.095	0.762	0.751	0.950	0.740	1.199
19-SEP-94 10:23:42 500 PURGE	0.00	0.00	0.0	5	0.006	13	19	14	0.23	0.00	3	5	70	71	0.12	12.7	16.5	-1	0.967	0.957	0.962	0.960	1.114	0.407	0.673	0.675	0.736	0.219
19-SEP-94 10:24:42 500 PURGE	0.00	0.00	0.0	5	0.006	14	19	15	0.17	0.00	4	4	70	70	0.00	13.9	16.5	-1	1.215	1.209	1.209	1.204	1.160	0.038	0.034	0.004	0.001	0.068
19-SEP-94 10:25:42 500 PURGE	0.00	0.00	0.0	5	0.006	15	19	15	0.21	0.00	4	4	70	70	0.00	15.1	16.3	-0	1.217	1.219	1.210	1.217	1.138	0.026	0.034	0.067	0.079	0.070
19-SEP-94 10:26:42 500 PURGE	0.00	0.00	0.0	5	0.007	15	19	15	0.10	0.00	4	4	70	71	0.00	11.5	16.5	-1	1.211	1.216	1.204	1.210	1.170	0.032	0.032	0.046	0.070	0.065
19-SEP-94 10:27:42 500 PURGE	0.00	0.00	0.0	5	0.007	15	19	15	0.14	0.00	3	3	70	71	0.00	12.7	16.4	-1	1.217	1.217	1.217	1.211	1.167	0.023	0.033	0.046	0.072	0.051
19-SEP-94 10:28:42 500 PURGE	0.00	0.00	0.0	5	0.007	15	19	16	0.19	0.00	3	4	70	71	0.00	15.1	16.4	-1	1.220	1.215	1.212	1.217	1.164	0.037	0.035	0.044	0.072	0.036
19-SEP-94 10:29:42 500 PURGE	0.00	0.00	0.0	5	0.007	15	19	17	0.15	0.00	3	4	70	70	0.00	12.6	16.4	-1	1.214	1.216	1.211	1.217	1.161	0.032	0.027	0.042	0.076	0.056
19-SEP-94 10:30:42 500 PURGE	0.00	0.00	0.0	5	0.008	15	19	16	0.15	0.00	3	4	70	71	0.00	14.0	16.5	-1	1.219	1.217	1.212	1.220	1.162	0.040	0.035	0.044	0.072	0.054
19-SEP-94 10:31:42 500 PURGE	0.00	0.00	0.0	5	0.008	15	19	17	0.12	0.00	3	3	69	71	0.00	15.1	16.5	-1	1.216	1.217	1.222	1.215	1.156	0.020	0.037	0.033	0.080	0.061
19-SEP-94 10:32:42 500 PURGE	0.00	0.00	0.0	5	0.007	15	19	16	0.09	0.00	3	3	70	71	0.00	12.7	16.5	-1	1.216	1.215	1.217	1.215	1.150	0.033	0.034	0.037	0.082	0.026
19-SEP-94 10:33:42 500 PURGE	0.00	0.00	0.0	5	0.007	15	19	17	0.10	0.00	3	4	70	71	0.00	14.0	16.5	-1	1.220	1.220	1.216	1.219	1.159	0.030	0.033	0.030	0.072	0.070
19-SEP-94 10:34:42 500 PURGE	0.00	0.00	0.0	6	0.008	15	19	17	0.14	0.00	3	3	70	71	0.00	15.2	16.5	-1	1.214	1.215	1.216	1.214	1.165	0.037	0.032	0.024	0.074	0.042
19-SEP-94 10:35:42 500 PURGE	0.00	0.00	0.0	6	0.008	15	19	17	0.12	0.00	3	3	70	71	0.00	12.7	16.4	-1	1.212	1.217	1.222	1.215	1.159	0.033	0.037	0.023	0.077	0.040
19-SEP-94 10:36:42 500 PURGE	0.00	0.00	0.0	6	0.007	15	19	17	0.14	0.00	3	3	70	71	0.00	15.2	16.5	-1	1.217	1.216	1.223	1.211	1.164	0.039	0.032	0.024	0.070	0.053
19-SEP-94 10:37:42 500 PURGE	0.00	0.00	0.0	6	0.010	15	19	18	0.12	0.00	3	3	70	71	0.00	11.4	16.4	-1	1.220	1.221	1.217	1.209	1.160	0.034	0.034	0.020	0.071	0.042
19-SEP-94 10:38:42 500 PURGE	0.00	0.00	0.0	6	0.009	15	19	23	1.46	0.00	3	3	71	71	0.00	14.0	16.4	-1	1.222	1.221	1.222	1.220	1.165	0.031	0.029	0.018	0.070	0.043
19-SEP-94 10:39:42 500 PURGE	0.00	0.00	0.0	6	0.009	15	19	22	1.71	0.00	3	4	71	71	0.02	13.9	16.4	-1	1.220	1.227	1.217	1.211	1.144	0.030	0.027	0.018	0.074	0.049
19-SEP-94 10:40:42 500 PURGE	0.00	0.00	0.0	6	0.008	15	19	21	1.74	0.00	3	4	71	71	0.09	14.0	16.4	-1	1.223	1.225	1.226	1.215	1.140	0.021	0.031	0.016	0.063	0.035
19-SEP-94 10:41:42 500 PURGE	0.00	0.00	0.0	6	0.009	15	19	21	1.75	0.00	3	3	71	72	0.00	13.9	16.5	-1	1.221	1.221	1.226	1.216	1.130	0.022	0.031	0.012	0.065	0.076
19-SEP-94 10:42:41 500 PURGE	0.00	0.00	0.0	6	0.009	15	19	21	1.80	0.00	3	3	71	72	0.00	13.9	16.4	-1	1.221	1.225	1.221	1.220	1.162	0.020	0.031	0.015	0.060	0.070
19-SEP-94 10:43:42 500 PURGE	0.00	0.00	0.0	5	0.010	15	19	20	1.78	0.00	3	3	71	71	0.00	13.9	16.4	-1	1.216	1.228	1.227	1.214	1.162	0.022	0.035	0.010	0.067	0.031
19-SEP-94 10:44:42 500 PURGE	0.00	0.00	0.0	4	0.010	15	19	20	1.92	0.00	3	3	71	72	0.09	14.0	16.4	-1	1.220	1.222	1.222	1.220	1.142	0.024	0.031	0.010	0.061	0.040
19-SEP-94 10:45:42 500 PURGE	0.00	0.00	0.0	4	0.010	15	19	20	1.92	0.00	3	3	71	71	0.00	13.9	16.5	-0	1.221	1.220	1.220	1.220	1.160	0.013	0.018	0.015	0.065	0.079
19-SEP-94 10:46:42 500 PURGE	0.00	0.00	0.0	4	0.010	15	19	20	1.91	0.00	3	3	71	71	0.15	13.9	16.4	-1	1.223	1.221	1.225	1.220	1.153	0.015	0.023	0.012	0.061	0.040
19-SEP-94 10:47:42 500 PURGE	0.00	0.00	0.0	4	0.009	15	21	20	1.90	0.00	4	5	71	72	0.00	14.0	16.5	-0	1.227	1.221	1.219	1.220	1.165	0.016	0.020	0.015	0.040	0.042
19-SEP-94 10:48:42 500 PURGE	0.00	0.00	0.0	4	0.012	15	21	20	1.93	0.00	5	5	71	72	0.00	13.9	16.4	-1	1.212	1.236	1.220	1.216	1.167	0.011	0.012	0.009	0.057	0.020
19-SEP-94 10:49:41 500 PURGE	0.00	0.00	0.0	4	0.010	15	21	21	1.96	0.00	5	4	72	71	0.00	13.9	16.4	-1	1.225	1.226	1.219	1.221	1.162	0.011	0.018	0.013	0.057	0.062
19-SEP-94 10:50:42 500 PURGE	0.00	0.00	0.0	4	0.010	15	32	20	1.92	0.00	14	14	71	72	0.15	14.0	16.4	-1	1.222	1.232	1.225	1.223	1.160	0.011	0.011	0.009	0.051	0.026
19-SEP-94 10:51:42 500 PURGE	0.00	0.00	0.0	4	0.011	15	43	20	1.07	0.00	27	27	72	72	0.00	14.0	16.4	-1	1.223	1.221	1.220	1.219	1.161	0.011	0.015	0.013	0.046	0.035
19-SEP-94 10:52:37 303 PROCESS-VENT	1.55	0.19	0.0	4	1.459	15	52	22	2.12	0.00	36	37	72	72	0.10	14.0	16.4	9	1.240	1.240	1.245	1.245	1.125	0.023	0.035	0.019	0.092	0.201
19-SEP-94 10:52:41 500 FAIL	1.55	0.19	0.0	4	0.000	15	52	20	1.69	0.00	35	36	72	72	0.00	13.9	16.4	5	1.264	1.258	1.245	1.259	0.095	0.010	0.016	0.016	0.059	0.209
19-SEP-94 10:53:42 501 OFF	0.00	0.00	0.0	5	0.000	14	21	15	0.20	0.00	3	7	72	71	0.00	13.9	16.4	-0	1.217	1.215	1.222	1.220	0.409	0.002	0.005	0.005	0.031	0.037
19-SEP-94 10:54:42 500 OFF	0.00	0.00	0.0	5	0.000	14	19	15	0.20	0.00	1	4	72	72	0.00	14.0	16.5	0	1.192	1.194	1.201	1.200	0.307	0.005	0.005	0.004	0.042	0.069

HIGH I908

19-SEP-94	10:55:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.23	0.00	1	4	72	72	0.00	13.9	16.4	-0	1.176	1.140	1.173	1.176	0.322	0.004	0.005	0.006	0.037	0.029	
19-SEP-94	10:56:01	500	OFF	0.00	0.00	0.0	5	0.000	14	19	14	0.22	0.00	1	4	72	72	0.00	13.9	16.4	-0	1.159	1.160	1.160	1.165	0.302	0.001	0.004	0.006	0.034	0.037	
19-SEP-94	10:57:01	500	OFF	0.00	0.00	0.0	5	0.000	14	19	15	0.23	0.00	1	4	72	72	0.00	13.9	16.4	-0	1.136	1.140	1.137	1.127	0.297	0.004	0.006	0.002	0.042	0.042	
19-SEP-94	10:58:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.28	0.00	1	4	72	72	0.00	14.0	16.4	-0	1.120	1.122	1.126	1.110	0.278	0.005	0.008	0.004	0.032	0.018	
19-SEP-94	10:59:02	500	OFF	0.00	0.00	0.0	5	0.000	14	19	14	0.29	0.00	2	4	72	72	0.00	13.9	16.4	-0	1.112	1.111	1.101	1.106	0.277	0.002	0.006	0.004	0.033	0.022	
19-SEP-94	11:00:01	500	OFF	0.00	0.00	0.0	5	0.000	14	19	14	0.19	0.00	2	4	72	72	0.00	13.9	16.4	0	1.096	1.099	1.085	1.080	0.275	0.009	0.006	0.009	0.042	0.037	
19-SEP-94	11:01:01	500	OFF	0.00	0.00	0.0	5	0.000	13	19	14	0.29	0.00	2	4	72	72	0.00	14.0	16.4	-0	1.093	1.090	1.065	1.063	0.274	0.002	0.004	0.004	0.034	0.037	
19-SEP-94	11:02:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.22	0.00	2	4	72	72	0.00	13.9	16.4	0	1.077	1.070	1.056	1.053	0.280	0.006	0.006	0.007	0.030	0.043	
19-SEP-94	11:03:01	500	OFF	0.00	0.00	0.0	5	0.000	13	18	15	0.20	0.00	2	4	72	72	0.00	13.9	16.4	-0	1.063	1.063	1.043	1.035	0.278	0.002	0.005	0.006	0.031	0.026	
19-SEP-94	11:04:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.21	0.00	2	4	72	72	0.00	13.9	16.5	-0	1.056	1.053	1.020	1.021	0.282	0.005	0.005	0.006	0.033	0.044	
19-SEP-94	11:05:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.25	0.00	2	4	72	72	0.00	14.0	16.4	0	1.046	1.043	1.005	1.006	0.281	0.006	0.006	0.005	0.037	0.023	
19-SEP-94	11:06:01	500	OFF	0.00	0.00	0.0	5	0.000	13	18	14	0.25	0.00	2	4	72	72	0.00	14.0	16.4	0	1.031	1.029	0.990	0.993	0.287	0.005	0.006	0.004	0.042	0.023	
19-SEP-94	11:07:01	500	OFF	0.00	0.00	0.0	5	0.000	13	18	14	0.26	0.00	2	4	72	73	0.00	14.0	16.4	-0	1.014	1.023	0.982	0.979	0.291	0.007	0.004	0.002	0.033	0.030	
19-SEP-94	11:08:01	500	OFF	0.00	0.00	0.0	5	0.000	13	18	15	0.22	0.00	2	4	72	73	0.00	14.0	16.4	0	1.015	1.015	0.960	0.960	0.288	0.005	0.007	0.004	0.037	0.035	
19-SEP-94	11:09:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.23	0.00	2	4	72	73	0.00	13.9	16.4	0	0.999	1.001	0.950	0.950	0.288	0.006	0.006	0.002	0.037	0.033	
19-SEP-94	11:10:01	500	OFF	0.00	0.00	0.0	5	0.000	13	18	15	0.20	0.00	3	4	72	73	0.00	14.0	16.5	0	0.983	0.985	0.947	0.945	0.290	0.004	0.005	0.006	0.042	0.033	
19-SEP-94	11:11:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.23	0.00	3	4	72	72	0.00	14.0	16.4	-0	0.983	0.982	0.940	0.933	0.302	0.002	0.004	0.001	0.033	0.036	
19-SEP-94	11:12:01	500	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.23	0.00	3	4	72	73	0.00	13.9	16.4	0	0.969	0.967	0.919	0.910	0.300	0.005	0.007	0.007	0.032	0.021	
19-SEP-94	11:13:01	500	PURGE	0.00	0.00	0.0	5	1.339	14	18	15	0.23	0.00	3	4	72	73	0.00	13.0	16.5	-0	1.167	1.167	1.153	1.150	0.030	0.005	0.003	0.110	0.150	1.012	
19-SEP-94	11:14:01	500	PURGE	0.00	0.00	0.0	5	1.330	15	18	15	0.18	0.00	3	3	72	73	0.00	15.2	16.4	-0	1.240	1.253	1.252	1.249	1.149	0.010	0.010	0.009	0.043	0.093	
19-SEP-94	11:15:01	500	PURGE	0.00	0.00	0.0	5	1.320	15	19	15	0.16	0.00	3	3	72	73	0.00	12.7	16.5	-0	1.255	1.250	1.256	1.252	1.159	0.006	0.009	0.004	0.044	0.027	
19-SEP-94	11:16:01	500	PURGE	0.00	0.00	0.0	5	1.309	15	19	15	0.20	0.00	3	3	72	73	0.00	13.9	16.5	-0	1.250	1.250	1.256	1.256	1.156	0.004	0.010	0.009	0.042	0.030	
19-SEP-94	11:17:01	500	PURGE	0.00	0.00	0.0	5	1.296	15	19	16	0.17	0.00	3	3	72	73	0.00	15.2	16.5	-0	1.260	1.254	1.250	1.255	1.159	0.007	0.006	0.005	0.035	0.013	
19-SEP-94	11:18:01	500	PURGE	0.00	0.00	0.0	5	1.283	15	19	16	0.17	0.00	3	3	72	73	0.00	11.4	16.4	-0	1.252	1.252	1.253	1.252	1.161	0.002	0.002	0.010	0.040	0.030	
19-SEP-94	11:19:01	500	PURGE	0.00	0.00	0.0	5	1.269	15	19	17	0.17	0.00	3	3	72	73	0.00	12.6	16.4	-0	1.254	1.255	1.250	1.260	1.150	0.005	0.007	0.011	0.029	0.027	
19-SEP-94	11:20:01	500	PURGE	0.00	0.00	0.0	5	1.258	15	19	17	0.15	0.00	3	3	72	73	0.00	15.2	16.5	-0	1.259	1.263	1.256	1.253	1.159	0.005	0.007	0.010	0.037	0.054	
19-SEP-94	11:21:01	500	PURGE	0.00	0.00	0.0	5	1.247	15	19	17	0.16	0.00	3	3	72	73	0.00	12.6	16.4	-0	1.260	1.250	1.255	1.252	1.156	0.004	0.007	0.009	0.040	0.040	
19-SEP-94	11:22:01	500	PURGE	0.00	0.00	0.0	6	1.234	16	19	17	0.14	0.00	3	3	72	73	0.00	14.0	16.4	-0	1.259	1.259	1.250	1.255	1.155	0.004	0.009	0.005	0.043	0.040	
19-SEP-94	11:23:01	500	PURGE	0.00	0.00	0.0	6	1.223	15	19	18	0.13	0.00	3	3	72	73	0.00	15.2	16.5	-0	1.256	1.259	1.259	1.256	1.166	0.005	0.010	0.007	0.042	0.028	
19-SEP-94	11:24:01	500	PURGE	0.00	0.00	0.0	7	1.211	15	19	23	1.63	0.00	4	3	72	73	0.00	14.0	16.4	-0	1.236	1.240	1.250	1.249	1.162	0.002	0.005	0.004	0.037	0.027	
19-SEP-94	11:25:01	500	PURGE	0.00	0.00	0.0	4	1.190	15	19	23	1.03	0.00	3	3	73	73	0.00	14.0	16.5	0	1.255	1.240	1.250	1.252	1.158	0.004	0.006	0.006	0.039	0.024	
19-SEP-94	11:26:01	500	PURGE	0.00	0.00	0.0	4	1.180	14	19	22	1.00	0.00	4	4	73	73	0.14	14.0	16.4	-0	1.252	1.250	1.252	1.250	1.159	0.004	0.007	0.004	0.045	0.042	
19-SEP-94	11:27:01	500	PURGE	0.00	0.00	0.0	4	1.171	15	19	22	1.00	0.00	3	3	73	73	0.00	13.9	16.4	-0	1.232	1.249	1.249	1.243	1.155	0.008	0.006	0.002	0.035	0.051	
19-SEP-94	11:28:01	500	PURGE	0.00	0.00	0.0	4	1.141	15	19	21	1.05	0.00	3	3	73	73	0.07	14.0	16.3	-0	1.249	1.254	1.252	1.248	1.150	0.005	0.007	0.004	0.032	0.020	
19-SEP-94	11:29:01	500	PURGE	0.00	0.00	0.0	4	1.149	15	19	21	1.00	0.00	3	3	73	73	0.13	14.0	16.5	-0	1.252	1.255	1.253	1.250	1.150	0.002	0.006	0.005	0.039	0.029	
19-SEP-94	11:30:01	500	PURGE	0.00	0.00	0.0	4	1.137	15	18	21	1.00	0.00	4	3	73	73	0.00	13.9	16.4	-0	1.253	1.253	1.256	1.250	1.159	0.004	0.007	0.005	0.037	0.035	
19-SEP-94	11:31:01	500	PURGE	0.00	0.00	0.0	4	1.125	15	19	20	1.99	0.00	3	3	73	73	0.09	13.9	16.5	-0	1.253	1.249	1.252	1.250	1.155	0.004	0.006	0.006	0.039	0.012	
19-SEP-94	11:32:01	500	PURGE	0.00	0.00	0.0	5	1.113	15	19	20	1.90	0.00	3	3	73	73	0.07	13.9	16.5	-0	1.256	1.252	1.255	1.247	1.158	0.004	0.007	0.005	0.045	0.054	
19-SEP-94	11:33:01	500	PURGE	0.00	0.00	0.0	4	1.103	15	18	21	1.96	0.00	3	3	73	73	0.00	13.9	16.5	-0	1.252	1.253	1.249	1.253	1.160	0.004	0.007	0.005	0.043	0.042	
19-SEP-94	11:34:01	500	PURGE	0.00	0.00	0.0	4	1.094	15	19	21	1.96	0.00	3	3	73	73	0.00	13.9	16.5	-0	1.249	1.254	1.255	1.248	1.156	0.002	0.009	0.006	0.037	0.035	
19-SEP-94	11:35:01	500	PURGE	0.00	0.00	0.0	4	1.083	15	19	20	1.09	0.00	3	3	73	73	0.03	14.0	16.5	-0	1.253	1.255	1.255	1.250	1.162	0.004	0.010	0.007	0.030	0.018	
19-SEP-94	11:36:01	500	PURGE	0.00	0.00	0.0	4	1.072	15	18	20	1.97	0.00	3	3	73	73	0.00	13.9	16.5	0	1.250	1.254	1.254	1.252	1.162	0.005	0.009	0.006	0.043	0.032	
19-SEP-94	11:37:01	500	PURGE	0.00	0.00	0.0	4	1.057	15	21	20	1.90	0.00	5	5	73	73	0.10	13.9	16.5	-0	1.253	1.259	1.253	1.252	1.158	0.005	0.005	0.007	0.040	0.051	
19-SEP-94	11:38:01	500	PURGE	0.00	0.00	0.0	4	1.040	15	21	20	1.93	0.00	5	6	73	73	0.00	13.9	16.4	-0	1.247	1.249	1.240	1.249	1.150	0.002	0.006	0.005	0.043	0.059	
19-SEP-94	11:39:01	500	PURGE	0.00	0.00	0.0	4	1.033	15	30	21	1.93	0.00	14	14	73	73	0.00	14.0	16.4	-0	1.255	1.253	1.249	1.250	1.160	0.006	0.004	0.004	0.037	0.020	
19-SEP-94	11:40:40	500	PURGE	0.00	0.00	0.0	4	1.021	15	41	21	1.92	0.00	25	25	73	73	0.00	14.0	16.4	-0	1.253	1.249	1.247	1.247	1.159	0.004	0.004	0.004	0.037	0.031	
19-SEP-94	11:41:40	500	PROCESS-VENT	0.00	0.00	0.0	4	1.120	15	51	21	1.92	0.00	36	35	73	73	0.00	14.0	16.4	2	1.252	1.249	1.207	1.202	1.159	0.004	0.005	0.005	0.033	0.046	
19-SEP-94	11:41:45	303	PROCESS-VENT	0.01	0.10	0.0	4	1.400	15	52	21	1.76	0.00	34	36	73	73	0.00	13.9	16.4	4	1.252	1.252	1.209	1.201	1.121	0.002	0.004	0.004	0.040	0.222	
19-SEP-94	11:41:57	120	FAIL	1.11	0.13	0.0	4	1.550	15	52	22	2.03	0.00	34	36	74	73	0.10	13.0	16.4	5	1.232	1.231	1.202	1.220	0.979	0.050	0.037	0.009	0.112	1.001	HIGH ISOB
19-SEP-94	11:42:40	120	FAIL	0.00	0.00	0.0	5	0.000	14	27	18	0.24	0.00	0	12	73	73	0.00	14.0	16.5	0	1.233	1.250	1.250	1.260	0.657	0.004	0.005	0.002	0.004	0.021	
19-SEP-94	11:43:29	021	FAIL	0.00	0.00	0.0	5	0.000	13	19	15	0.25	0.00	1	4	73	73	0.00	14.0	16.4	-0	1.250	1.256	1.232	1.250	0.305	0.007	0.005	0.004	0.037	0.007	
19-SEP-94	11:43:30	500	FAIL	0.00	0.00	0.0	5	0.000	13	19	15	0.20	0.00	1	4	73	73	0.00	14.0	16.4	-0	1.255	1.261	1.255	1.253	0.307	0.005	0.005	0.006	0.030	0.021	
19-SEP-94	11:44:01	501	OFF	0.00	0.00	0.0	5	0.000	14	18	14	0.25	0.00	1	4	73	73	0.00	13.9	16.4	0	1.267	1.267	1.259	1.250	0.335	0.002	0.002	0.005	0.040	0.031	
19-SEP-94	11:45:40	501	OFF	0.00	0.00	0.0	5	0.000	14	19	15	0.22	0.00	1	4	73	74	0.00	13.9	16.4	-0	1.263	1.269	1.260	1.255	0.300	0.004	0.006	0.005	0.043	0.045	
19-SEP-94	11:46:40	500	PURGE	0.00	0.00	0.0	5	1.410	14	18	15	0.18	0.00	1	4	73	73	0.00	13.9	16.4	0	1.256	1.261	1.252	1.252	0.447	0.002	0.005	0.007	0.042	0.361	
19-SEP-94	11:47:40	500	PURGE	0.00	0.00	0.0	5	1.409	15	18	15	0.18	0.00	1	3	73	73	0.00	15.2	16.4	-0	1.253	1.250	1.260	1.253	1.149	0.004	0.005	0.004	0.033	0.076	
19-SEP-94	11:48:41	500	PURGE	0.00	0.00	0.0	5	1.403	14	18	15	0.14	0.00	1	3	73	73	0.00	11.4	16.4	-0	1.259	1.256	1.253	1.248	1.147	0.005	0.007	0.006	0.031	0.020	
19-SEP-94	11:49:40	500	PURGE	0.00	0.00	0.0	5	1.404	15	18	15	0.17	0.00	1	3	73	73	0.00	14.0	16.4	-0	1.250	1.255	1.247	1.240	1.154	0.001	0.004	0.006	0.030	0.039	
19-SEP-94	11:50:40	500	PURGE	0.00	0.00	0.0	5	1.400	15	18	16	0.18	0.00	2	3	73	74	0.00	15.2	16.4	-0	1.255	1.261	1.254	1.254	1.150	0.000	0.004	0.004	0.035	0.026	
19-SEP-94	11:51:41	500	PURGE	0.00	0.00	0.0	5	1.399	15	18	17	0.14	0.00	2	3	73	73	0.00	12.6	16.4	-0	1.256	1.256	1.261	1.247	1.150	0.002	0.005	0.006	0.030	0.021	
19-SEP-94	11:52:40	500	PURGE	0.00	0.00	0.0	5	1.399	15	18	17	0.15	0.00	2	3	73	74	0.00	13.9	16.4	-0	1.253	1.255	1.250	1.252	1.153	0.005	0.005	0.004	0.030	0.054	
19-SEP-94	11:53:40	500	PURGE	0.00	0.00	0.0	5	1.397	15	18	17	0.14	0.00	2	3	73	74	0.00	15.1	16.4	-0	1.253	1.240	1.256	1.235	1.150	0.004	0.006	0.002	0.037	0.039	
19-SEP-94	11:54:40	500	PURGE	0.00	0.00	0.0	6	1.393	15	18	17	0.21	0.00	2	3	73	73	0.00	12.7	16.5	-0	1.255	1.259	1.254	1.250	1.162	0.001	0.002	0.004	0.030	0.005	

19-SEP-94 11:57:40	500	PURGE	0.00	0.00	0.0	6	1.383	15	18	23	1.83	0.00	2	2	74	74	0.00	13.9	16.4	-0	1.253	1.238	1.254	1.250	1.155	0.004	0.005	0.005	0.038	0.033	
19-SEP-94 11:58:40	500	PURGE	0.00	0.00	0.0	6	1.381	15	18	22	1.89	0.00	3	3	74	74	0.00	14.0	16.4	0	1.247	1.233	1.252	1.249	1.155	0.002	0.007	0.005	0.032	0.028	
19-SEP-94 11:59:40	500	PURGE	0.00	0.00	0.0	6	1.379	15	18	22	1.97	0.00	3	3	74	74	0.00	14.0	16.4	0	1.249	1.255	1.252	1.253	1.155	0.004	0.007	0.005	0.035	0.035	
19-SEP-94 12:00:40	500	PURGE	0.00	0.00	0.0	6	1.377	15	18	21	1.92	0.00	3	3	74	74	0.02	13.9	16.5	0	1.243	1.254	1.249	1.248	1.160	0.006	0.002	0.004	0.038	0.027	
19-SEP-94 12:01:40	500	PURGE	0.00	0.00	0.0	6	1.374	14	18	21	1.92	0.00	3	2	74	74	0.14	13.9	16.4	-0	1.249	1.256	1.256	1.252	1.155	0.005	0.004	0.001	0.044	0.035	
19-SEP-94 12:02:40	500	PURGE	0.00	0.00	0.0	6	1.373	15	18	21	1.93	0.00	3	2	74	74	0.13	13.9	16.4	-0	1.250	1.254	1.255	1.247	1.158	0.004	0.005	0.001	0.040	0.044	
19-SEP-94 12:03:40	500	PURGE	0.00	0.00	0.0	6	1.370	15	18	21	1.90	0.00	3	3	74	74	0.00	13.9	16.5	0	1.249	1.253	1.259	1.250	1.160	0.005	0.006	0.002	0.028	0.012	
19-SEP-94 12:04:40	500	PURGE	0.00	0.00	0.0	5	1.372	15	18	20	1.97	0.00	3	3	74	74	0.13	14.0	16.4	-0	1.250	1.255	1.247	1.247	1.158	0.005	0.002	0.004	0.040	0.053	
19-SEP-94 12:05:40	500	PURGE	0.00	0.00	0.0	5	1.367	15	18	20	1.97	0.00	3	2	74	74	0.00	13.9	16.5	0	1.249	1.250	1.250	1.249	1.154	0.001	0.004	0.006	0.042	0.026	
19-SEP-94 12:06:40	500	PURGE	0.00	0.00	0.0	4	1.365	15	18	21	1.90	0.00	3	2	74	74	0.10	13.9	16.4	-0	1.247	1.248	1.253	1.249	1.155	0.004	0.005	0.005	0.037	0.015	
19-SEP-94 12:07:40	500	PURGE	0.00	0.00	0.0	4	1.363	15	18	21	1.99	0.00	3	2	74	74	0.09	13.9	16.5	-0	1.250	1.252	1.250	1.254	1.158	0.006	0.005	0.004	0.039	0.026	
19-SEP-94 12:08:40	500	PURGE	0.00	0.00	0.0	4	1.359	15	17	20	1.95	0.00	3	2	74	75	0.17	13.9	16.4	-0	1.252	1.255	1.253	1.249	1.158	0.004	0.005	0.004	0.038	0.046	
19-SEP-94 12:09:40	500	PURGE	0.00	0.00	0.0	4	1.358	15	21	21	1.94	0.00	6	5	74	75	0.00	13.9	16.4	0	1.250	1.252	1.254	1.253	1.159	0.004	0.006	0.004	0.044	0.026	
19-SEP-94 12:10:40	500	PURGE	0.00	0.00	0.0	4	1.352	15	21	20	1.89	0.00	6	5	74	74	0.16	13.9	16.4	-0	1.252	1.250	1.250	1.247	1.158	0.004	0.004	0.005	0.038	0.042	
19-SEP-94 12:11:40	500	PURGE	0.00	0.00	0.0	4	1.350	15	27	20	1.97	0.00	12	11	75	74	0.00	13.9	16.4	-0	1.253	1.252	1.256	1.253	1.160	0.005	0.005	0.004	0.043	0.039	
19-SEP-94 12:12:40	500	PURGE	0.00	0.00	0.0	4	1.346	15	37	20	1.89	0.00	23	22	75	74	0.12	13.9	16.5	0	1.254	1.252	1.252	1.250	1.165	0.005	0.002	0.005	0.039	0.028	
19-SEP-94 12:13:40	500	PURGE	0.00	0.00	0.0	4	1.343	15	40	21	1.85	0.00	34	32	75	74	0.09	13.9	16.5	-0	1.249	1.248	1.253	1.248	1.158	0.004	0.002	0.002	0.033	0.035	
19-SEP-94 12:13:50	303	PROCESS-VENT	0.02	0.00	0.0	4	1.479	15	51	21	1.86	0.00	34	35	75	75	0.09	14.0	16.4	4	1.253	1.254	1.249	1.249	1.110	0.006	0.002	0.002	0.035	0.302	HIGH
19-SEP-94 12:14:12	120	FAIL	1.13	0.14	0.0	4	0.000	15	52	21	1.81	0.00	33	35	75	75	0.00	14.0	16.5	4	0.971	0.980	0.980	0.956	0.904	0.560	0.359	0.376	0.390	0.796	I90B
19-SEP-94 12:14:40	120	FAIL	0.00	0.00	0.0	5	0.000	13	33	15	0.38	0.00	14	19	75	74	0.00	13.9	16.4	0	0.063	0.050	0.041	0.041	0.405	0.009	0.001	0.010	0.027	0.033	
19-SEP-94 12:15:40	500	OFF	0.00	0.00	0.0	5	0.000	14	19	14	0.25	0.00	1	4	75	74	0.07	13.9	16.4	-0	0.932	0.932	0.919	0.912	0.381	0.005	0.004	0.009	0.033	0.055	
19-SEP-94 12:16:40	500	PURGE	0.00	0.00	0.0	5	1.422	14	19	15	0.22	0.00	1	4	75	74	0.00	12.7	16.4	-0	1.219	1.221	1.223	1.211	1.030	0.060	0.059	0.066	0.100	0.106	
19-SEP-94 12:17:40	500	PURGE	0.00	0.00	0.0	5	1.416	15	19	15	0.22	0.00	1	3	75	75	0.00	15.1	16.5	-0	1.250	1.243	1.235	1.247	1.153	0.004	0.006	0.011	0.030	0.065	
19-SEP-94 12:18:39	500	PURGE	0.00	0.00	0.0	5	1.414	15	18	15	0.17	0.00	1	3	75	75	0.00	11.9	16.5	-0	1.249	1.250	1.253	1.250	1.150	0.005	0.006	0.005	0.039	0.046	
19-SEP-94 12:19:40	500	PURGE	0.00	0.00	0.0	5	1.409	15	19	16	0.17	0.00	1	3	75	75	0.00	12.6	16.4	-0	1.248	1.254	1.250	1.249	1.153	0.004	0.007	0.002	0.039	0.026	
19-SEP-94 12:20:40	500	PURGE	0.00	0.00	0.0	5	1.406	15	18	16	0.15	0.00	1	3	74	75	0.00	15.2	16.5	-0	1.250	1.252	1.250	1.254	1.156	0.005	0.005	0.005	0.039	0.040	
19-SEP-94 12:21:40	500	PURGE	0.00	0.00	0.0	5	1.404	14	19	17	0.17	0.00	2	3	74	74	0.00	12.7	16.5	-0	1.250	1.259	1.252	1.247	1.158	0.004	0.006	0.007	0.040	0.045	
19-SEP-94 12:22:40	500	PURGE	0.00	0.00	0.0	5	1.404	15	18	16	0.18	0.00	2	3	74	75	0.00	14.0	16.4	0	1.250	1.254	1.252	1.252	1.155	0.006	0.006	0.006	0.044	0.020	
19-SEP-94 12:23:40	500	PURGE	0.00	0.00	0.0	5	1.400	15	18	17	0.15	0.00	2	3	74	75	0.00	15.2	16.4	-0	1.250	1.255	1.250	1.252	1.162	0.006	0.006	0.010	0.040	0.027	
19-SEP-94 12:24:40	500	PURGE	0.00	0.00	0.0	6	1.398	15	18	17	0.13	0.00	2	2	74	75	0.00	12.4	16.4	-0	1.252	1.253	1.249	1.248	1.158	0.004	0.005	0.007	0.042	0.033	
19-SEP-94 12:25:39	500	PURGE	0.00	0.00	0.0	6	1.395	15	18	17	0.13	0.00	2	3	74	75	0.00	15.1	16.4	-0	1.250	1.253	1.249	1.245	1.154	0.005	0.007	0.004	0.033	0.021	
19-SEP-94 12:26:40	500	PURGE	0.00	0.00	0.0	6	1.396	15	19	17	0.14	0.00	2	2	74	75	0.00	11.3	16.4	-0	1.250	1.254	1.248	1.248	1.159	0.004	0.005	0.005	0.035	0.023	
19-SEP-94 12:27:40	500	PURGE	0.00	0.00	0.0	6	1.390	15	18	23	1.75	0.00	2	3	75	75	0.00	13.9	16.4	-0	1.249	1.243	1.253	1.242	1.158	0.005	0.007	0.006	0.040	0.020	
19-SEP-94 12:28:40	500	PURGE	0.00	0.00	0.0	6	1.390	14	18	22	1.80	0.00	2	3	75	75	0.00	14.0	16.4	-0	1.245	1.239	1.245	1.244	1.156	0.002	0.005	0.005	0.037	0.034	
19-SEP-94 12:29:39	500	PURGE	0.00	0.00	0.0	6	1.389	15	18	23	1.89	0.00	3	3	75	75	0.00	13.9	16.4	-0	1.248	1.245	1.250	1.245	1.160	0.004	0.005	0.004	0.037	0.022	
19-SEP-94 12:30:39	500	PURGE	0.00	0.00	0.0	6	1.383	15	18	21	1.91	0.00	3	3	75	75	0.13	14.0	16.4	-0	1.247	1.242	1.245	1.252	1.153	0.004	0.004	0.002	0.037	0.039	
19-SEP-94 12:31:39	500	PURGE	0.00	0.00	0.0	6	1.383	15	18	21	1.89	0.00	3	3	75	75	0.10	13.9	16.5	-0	1.253	1.242	1.245	1.245	1.154	0.002	0.007	0.006	0.040	0.018	
19-SEP-94 12:32:39	500	PURGE	0.00	0.00	0.0	6	1.381	15	18	21	1.95	0.00	3	3	75	76	0.13	13.9	16.4	-0	1.247	1.243	1.233	1.233	1.160	0.005	0.007	0.007	0.037	0.032	
19-SEP-94 12:33:39	500	PURGE	0.00	0.00	0.0	6	1.380	15	18	21	2.02	0.00	3	3	75	76	0.00	13.9	16.4	-0	1.253	1.241	1.252	1.249	1.155	0.002	0.004	0.004	0.039	0.023	
19-SEP-94 12:34:39	500	PURGE	0.00	0.00	0.0	5	1.379	15	18	20	1.95	0.00	3	3	75	75	0.06	13.9	16.4	-0	1.247	1.245	1.249	1.249	1.158	0.002	0.007	0.004	0.038	0.040	
19-SEP-94 12:35:39	500	PURGE	0.00	0.00	0.0	5	1.375	15	18	20	1.90	0.00	3	3	75	75	0.00	13.9	16.4	-0	1.245	1.239	1.250	1.245	1.151	0.005	0.007	0.004	0.039	0.022	
19-SEP-94 12:36:39	500	PURGE	0.00	0.00	0.0	4	1.376	15	18	20	2.04	0.00	3	2	75	76	0.00	13.9	16.4	-0	1.248	1.244	1.247	1.240	1.158	0.005	0.005	0.002	0.035	0.031	
19-SEP-94 12:37:39	500	PURGE	0.00	0.00	0.0	4	1.372	15	17	20	1.96	0.00	3	2	75	76	0.14	14.0	16.5	0	1.243	1.245	1.247	1.247	1.156	0.002	0.004	0.005	0.035	0.026	
19-SEP-94 12:38:39	500	PURGE	0.00	0.00	0.0	4	1.374	15	18	20	2.01	0.00	3	2	75	76	0.00	14.0	16.4	-0	1.252	1.241	1.245	1.244	1.156	0.002	0.006	0.005	0.038	0.045	
19-SEP-94 12:39:39	500	PURGE	0.00	0.00	0.0	4	1.370	15	20	20	1.93	0.00	6	5	75	76	0.00	13.9	16.4	-0	1.245	1.240	1.253	1.247	1.151	0.002	0.005	0.001	0.035	0.026	
19-SEP-94 12:40:39	500	PURGE	0.00	0.00	0.0	4	1.370	15	21	20	1.95	0.00	6	6	75	76	0.00	13.9	16.4	-0	1.250	1.245	1.244	1.241	1.159	0.002	0.006	0.004	0.045	0.029	
19-SEP-94 12:41:39	500	PURGE	0.00	0.00	0.0	4	1.369	15	23	21	1.91	0.00	10	8	75	75	0.00	13.9	16.4	-0	1.250	1.244	1.249	1.244	1.162	0.002	0.005	0.006	0.029	0.032	
19-SEP-94 12:42:39	500	PURGE	0.00	0.00	0.0	4	1.367	15	33	21	1.94	0.00	20	19	76	75	0.00	13.9	16.4	0	1.250	1.243	1.252	1.245	1.150	0.002	0.007	0.005	0.033	0.028	
19-SEP-94 12:43:39	500	PURGE	0.00	0.00	0.0	4	1.365	15	45	20	1.85	0.00	31	29	76	76	0.20	14.0	16.4	0	1.245	1.244	1.248	1.245	1.156	0.004	0.005	0.002	0.035	0.026	
19-SEP-94 12:44:14	303	PROCESS-VENT	0.00	0.00	0.0	4	1.407	15	51	20	1.87	0.00	37	35	75	76	0.16	13.9	16.4	4	1.242	1.244	1.244	1.238	1.105	0.029	0.006	0.001	0.042	0.254	HIGH
19-SEP-94 12:44:39	303	PROCESS-VENT	1.14	0.14	0.0	4	1.357	15	52	22	1.95	0.00	33	35	76	75	0.26	13.9	16.4	5	1.120	1.126	1.112	1.123	0.991	0.326	0.266	0.390	0.331	0.951	INB
19-SEP-94 12:44:47	125	FAIL	1.14	0.14	0.0	4	1.358	16	52	22	1.91	0.00	33	35	76	76	0.33	13.9	16.4	6	1.164	1.167	1.170	1.160	1.007	0.197	0.153	0.256	0.199	0.021	
19-SEP-94 12:45:39	500	OFF	0.00	0.00	0.0	5	0.000	15	23	15	0.27	0.00	5	8	76	76	0.00	13.9	16.4	-0	0.062	0.049	0.055	0.066	0.490	0.015	0.000	0.020	0.007	0.026	
19-SEP-94 12:46:39	500	OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.26	0.00	1	4	76	76	0.00	13.9	16.4	0	0.061	0.067	0.060	0.050	0.429	0.016	0.000	0.031	0.009	0.012	
19-SEP-94 12:47:39	500	OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.25	0.00	1	4	76	75	0.00	14.0	16.4	-0	0.067	0.060	0.051	0.055	0.403	0.010	0.000	0.024	0.009	0.020	
19-SEP-94 12:48:39	500	PURGE	0.00	0.00	0.0	5	1.415	15	19	15	0.23	0.00	1	3	75	76	0.00	12.4	16.4	0	1.215	1.214	1.215	1.204	1.149	0.009	0.058	0.110	0.095	0.059	
19-SEP-94 12:49:39	500	PURGE	0.00	0.00	0.0	5	1.412	15	18	16	0.20	0.00	1	3	75	76	0.00	13.9	16.4	-0	1.221	1.221	1.217	1.223	1.150	0.059	0.032	0.007	0.073	0.035	
19-SEP-94 12:50:39	500	PURGE	0.00	0.00	0.0	5	1.410	15	17	14	0.22	0.00	1	3	75	76	0.00	14.7	16.4	-0	1.227	1.225	1.223	1.227	1.156	0.046	0.016	0.065	0.056	0.017	
19-SEP-94 12:51:39	500	PURGE	0.00	0.00	0.0	5	1.407	15	18	16	0.23	0.00	2	2	75	76	0.00	12.6	16.4	-0	1.230	1.230	1.227	1.226	1.160	0.044	0.013	0.060	0.059	0.033	
19-SEP-94 12:52:39	500	PURGE	0.00	0.00	0.0	5	1.402	15	18	16	0.19	0.00	2	2	75	76	0.00	14.0	16.5	-0	1.232	1.237	1.232	1.234	1.153	0.042	0.016	0.051	0.060	0.022	
19-SEP-94 12:53:39	500	PURGE	0.00	0.00	0.0	5	1.403	16	18	17	0.21	0.00	2	2	75	76	0.00	12.2	16.4	0	1.233	1.244	1.220	1.236	1.150	0.038	0.017	0.042	0.056	0.027	
19-SEP-94 12:54:39	500	PURGE	0.00	0.00	0.0	5	1.401	16	18	17	0.17	0.00	2	1	75	76	0.00	12.6	16.5	-0	1.241	1.244	1.233	1.233	1.156	0.033	0.016	0.035	0.045	0.015	
19-SEP-94 12:55:39	500	PURGE	0.00	0.00	0.0	5	1.400	16	18	17	0.10	0.00	2	1	75	76	0.00	15.1	16.4	0	1.241	1.244	1.239	1.230	1.147	0.032	0.009	0.037	0.057	0.035	
19-SEP-94 12:56:39	500	PURGE	0.00	0.00	0.0	6	1.396	16	19	17	0.14	0.00	2	1	75	76	0.00	[illegible]	16.4	-0	1.241	1.247	1.244	1.234	1.154	0.024	0.011	0.034	0.004	0.017	

19-SEP-94 12:59:39 500 PURGE	0.00	0.00	0.0	4	1.391	14	18	22	1.97	0.00	3	3	76	76	0.05	14.0	16.4	-0	1.244	1.249	1.239	1.239	1.145	0.015	0.007	0.022	0.037	0.002
19-SEP-94 13:00:39 500 PURGE	0.00	0.00	0.0	4	1.389	14	18	22	1.99	0.00	3	3	76	77	0.00	13.8	16.3	-0	1.242	1.252	1.207	1.236	1.153	0.021	0.010	0.021	0.045	0.035
19-SEP-94 13:01:39 500 PURGE	0.00	0.00	0.0	4	1.387	14	18	21	1.99	0.00	3	3	76	76	0.20	13.9	16.4	0	1.243	1.250	1.239	1.234	1.151	0.012	0.006	0.016	0.043	0.042
19-SEP-94 13:02:39 500 PURGE	0.00	0.00	0.0	4	1.384	15	18	21	2.05	0.00	3	3	76	77	0.00	13.9	16.4	-0	1.250	1.249	1.236	1.237	1.159	0.013	0.006	0.013	0.030	0.039
19-SEP-94 13:03:39 500 PURGE	0.00	0.00	0.0	4	1.383	14	18	21	1.96	0.00	3	3	76	76	0.13	13.9	16.4	-0	1.237	1.240	1.242	1.236	1.155	0.013	0.005	0.014	0.042	0.026
19-SEP-94 13:04:39 500 PURGE	0.00	0.00	0.0	4	1.383	15	18	21	2.07	0.00	3	3	76	77	0.00	13.9	16.4	0	1.239	1.240	1.244	1.236	1.156	0.009	0.004	0.011	0.039	0.033
19-SEP-94 13:05:39 500 PURGE	0.00	0.00	0.0	5	1.382	15	18	20	2.00	0.00	3	3	76	77	0.07	14.0	16.4	0	1.244	1.241	1.239	1.236	1.150	0.006	0.006	0.015	0.033	0.022
19-SEP-94 13:06:39 500 PURGE	0.00	0.00	0.0	4	1.379	14	18	21	2.10	0.00	3	3	76	77	0.14	14.0	16.4	-0	1.240	1.245	1.249	1.245	1.151	0.007	0.004	0.007	0.039	0.038
19-SEP-94 13:07:39 500 PURGE	0.00	0.00	0.0	4	1.377	15	18	20	2.11	0.00	4	3	76	77	0.11	14.0	16.4	0	1.247	1.239	1.243	1.240	1.139	0.007	0.007	0.011	0.044	0.026
19-SEP-94 13:08:39 500 PURGE	0.00	0.00	0.0	4	1.377	14	17	20	2.08	0.00	4	3	76	77	0.00	13.9	16.4	-0	1.236	1.240	1.245	1.239	1.158	0.004	0.005	0.007	0.042	0.021
19-SEP-94 13:09:39 500 PURGE	0.00	0.00	0.0	4	1.375	15	20	21	2.03	0.00	5	4	76	77	0.00	13.9	16.3	-0	1.245	1.241	1.253	1.241	1.153	0.005	0.005	0.010	0.035	0.032
19-SEP-94 13:10:39 500 PURGE	0.00	0.00	0.0	4	1.374	15	20	20	2.04	0.00	7	6	76	77	0.00	13.9	16.4	-0	1.243	1.252	1.249	1.243	1.153	0.005	0.006	0.013	0.042	0.034
19-SEP-94 13:11:39 500 PURGE	0.00	0.00	0.0	4	1.373	14	21	20	1.92	0.00	7	6	76	76	0.14	13.9	16.4	-0	1.244	1.241	1.245	1.239	1.154	0.007	0.004	0.006	0.040	0.020
19-SEP-94 13:12:39 500 PURGE	0.00	0.00	0.0	4	1.373	14	31	21	1.94	0.00	10	16	76	77	0.00	13.9	16.4	-0	1.245	1.241	1.249	1.241	1.156	0.005	0.004	0.009	0.042	0.037
19-SEP-94 13:13:39 500 PURGE	0.00	0.00	0.0	4	1.371	15	42	20	1.94	0.00	29	27	76	77	0.07	14.0	16.4	-0	1.244	1.242	1.245	1.247	1.150	0.004	0.004	0.006	0.035	0.023
19-SEP-94 13:14:30 500 PROCESS-VENT	1.55	0.19	0.0	4	1.571	15	52	21	2.10	2.99	35	37	76	77	0.10	14.0	16.4	0	1.245	1.233	1.242	1.245	1.140	0.005	0.005	0.007	0.030	0.053
19-SEP-94 13:15:39 500 PROCESS-VENT	5.44	0.68	0.0	4	1.711	23	62	30	1.92	4.31	42	36	77	77	0.27	13.9	16.4	30	1.239	1.241	1.237	1.234	1.139	0.011	0.013	0.018	0.040	0.057
19-SEP-94 13:16:30 500 PROCESS-VENT	10.05	1.25	0.0	4	1.890	39	72	45	1.02	5.62	51	31	80	77	0.29	13.9	16.5	53	1.227	1.232	1.221	1.221	1.105	0.051	0.021	0.038	0.055	0.272
19-SEP-94 13:17:06 209 FAIL	11.31	1.41	0.0	4	2.025	49	76	55	1.01	5.73	55	25	82	77	0.29	13.9	16.4	60	1.221	1.217	1.221	1.216	1.070	0.040	0.020	0.038	0.059	0.422
19-SEP-94 13:17:30 209 FAIL	0.00	0.00	0.0	3	0.000	44	62	49	1.06	0.00	44	16	79	77	0.27	14.0	16.4	0	1.121	1.126	1.139	1.140	0.613	0.005	0.002	0.007	0.039	0.010
19-SEP-94 13:18:17 021 FAIL	0.00	0.00	0.0	3	0.000	25	41	30	1.07	0.00	20	15	79	77	0.10	13.8	16.4	0	1.072	1.071	1.093	1.095	0.531	0.002	0.004	0.007	0.042	0.020
19-SEP-94 13:18:30 500 OFF	0.00	0.00	0.0	3	0.000	16	20	17	0.53	0.00	11	11	79	77	0.00	13.8	16.4	-0	1.061	1.062	1.062	1.001	0.505	0.007	0.004	0.004	0.027	0.023
19-SEP-94 13:19:30 500 OFF	0.00	0.00	0.0	4	0.000	15	19	15	0.24	0.00	2	4	78	77	0.00	13.9	16.4	-0	1.040	1.037	1.044	1.031	0.449	0.006	0.004	0.005	0.033	0.035
19-SEP-94 13:20:30 500 OFF	0.00	0.00	0.0	4	0.000	15	18	15	0.23	0.00	2	3	78	77	0.00	14.0	13.9	-0	1.020	1.021	1.017	1.010	0.440	0.004	0.002	0.005	0.020	0.026
19-SEP-94 13:21:30 500 PURGE	0.00	0.00	0.0	4	1.410	15	18	16	0.19	0.00	3	3	78	77	0.00	13.9	11.4	-0	1.243	1.233	1.230	1.237	1.144	0.013	0.011	0.020	0.049	0.065
19-SEP-94 13:22:30 500 PURGE	0.00	0.00	0.0	4	1.407	15	18	16	0.10	0.00	3	2	78	77	0.00	14.0	14.4	-0	1.240	1.245	1.239	1.233	1.151	0.004	0.005	0.012	0.027	0.023
19-SEP-94 13:23:30 500 PURGE	0.00	0.00	0.0	4	1.405	15	19	16	0.10	0.00	3	2	78	77	0.00	14.0	11.3	-0	1.243	1.245	1.244	1.243	1.140	0.007	0.007	0.011	0.040	0.039
19-SEP-94 13:24:30 500 PURGE	0.00	0.00	0.0	4	1.404	16	18	16	0.19	0.00	3	2	78	77	0.00	13.9	14.0	-0	1.244	1.244	1.244	1.238	1.153	0.004	0.002	0.011	0.035	0.032
19-SEP-94 13:25:30 500 PURGE	0.00	0.00	0.0	4	1.401	16	18	16	0.18	0.00	3	1	77	77	0.00	14.0	15.0	0	1.243	1.247	1.244	1.238	1.160	0.006	0.006	0.012	0.042	0.055
19-SEP-94 13:26:30 500 PURGE	0.00	0.00	0.0	4	1.400	16	18	17	0.21	0.00	3	1	77	77	0.00	13.9	12.6	-0	1.245	1.249	1.245	1.242	1.160	0.004	0.004	0.009	0.032	0.029
19-SEP-94 13:27:30 500 PURGE	0.00	0.00	0.0	4	1.399	16	18	17	0.16	0.00	3	1	77	77	0.00	13.9	15.1	-0	1.245	1.244	1.241	1.201	1.151	0.006	0.004	0.009	0.033	0.032
19-SEP-94 13:28:30 500 PURGE	0.00	0.00	0.0	4	1.398	16	18	17	0.10	0.00	4	1	77	77	0.00	14.0	12.7	-0	1.250	1.239	1.244	1.247	1.150	0.005	0.005	0.012	0.032	0.029
19-SEP-94 13:29:30 500 PURGE	0.00	0.00	0.0	4	1.393	16	18	17	0.10	0.00	4	1	77	77	0.00	14.0	15.1	-0	1.240	1.245	1.233	1.244	1.151	0.002	0.005	0.007	0.026	0.023
19-SEP-94 13:30:30 500 PURGE	0.00	0.00	0.0	4	1.392	16	18	17	0.21	0.00	4	1	77	77	0.00	14.0	12.6	-0	1.249	1.243	1.245	1.245	1.150	0.002	0.005	0.007	0.031	0.053
19-SEP-94 13:31:30 500 PURGE	0.00	0.00	0.0	4	1.390	15	18	17	0.20	0.00	4	1	76	77	0.00	13.9	15.2	-0	1.252	1.242	1.249	1.237	1.149	0.006	0.004	0.004	0.035	0.009
19-SEP-94 13:32:30 500 PURGE	0.00	0.00	0.0	4	1.385	15	18	23	1.91	0.00	5	2	78	77	0.10	13.9	15.2	-0	1.241	1.247	1.243	1.245	1.153	0.004	0.006	0.010	0.043	0.027
19-SEP-94 13:33:30 500 PURGE	0.00	0.00	0.0	4	1.385	15	18	22	1.99	0.00	5	3	78	77	0.07	14.0	15.1	-0	1.237	1.237	1.239	1.242	1.153	0.004	0.006	0.007	0.045	0.033
19-SEP-94 13:34:30 500 PURGE	0.00	0.00	0.0	4	1.383	14	18	15	0.31	0.00	5	3	78	77	0.00	13.9	15.2	0	1.245	1.245	1.243	1.237	1.153	0.002	0.004	0.009	0.043	0.030
19-SEP-94 13:35:30 500 PURGE	0.00	0.00	0.0	4	1.381	15	18	19	1.43	0.00	6	3	78	78	0.00	14.0	15.2	0	1.243	1.244	1.249	1.237	1.155	0.001	0.005	0.007	0.037	0.044
19-SEP-94 13:36:30 500 PURGE	0.00	0.00	0.0	4	1.379	15	18	21	1.90	0.00	6	3	78	77	0.10	13.9	15.1	-0	1.245	1.238	1.243	1.244	1.151	0.003	0.002	0.005	0.042	0.027
19-SEP-94 13:37:30 500 PURGE	0.00	0.00	0.0	4	1.376	14	18	16	0.47	0.00	6	3	78	78	0.00	13.9	15.2	-0	1.237	1.242	1.240	1.244	1.153	0.000	0.005	0.009	0.042	0.039
19-SEP-94 13:38:30 500 PURGE	0.00	0.00	0.0	4	1.374	14	18	15	0.25	0.00	6	3	78	78	0.00	13.9	15.1	-0	1.239	1.241	1.248	1.239	1.140	0.005	0.006	0.004	0.037	0.021
19-SEP-94 13:39:30 500 PURGE	0.00	0.00	0.0	4	1.372	15	18	21	1.97	0.00	6	2	78	78	0.00	13.9	15.1	-0	1.244	1.238	1.245	1.230	1.151	0.001	0.004	0.005	0.031	0.016
19-SEP-94 13:40:30 500 PURGE	0.00	0.00	0.0	5	1.371	15	18	20	2.05	0.00	6	2	78	78	0.00	13.9	15.1	-0	1.244	1.245	1.249	1.242	1.156	0.005	0.005	0.010	0.040	0.016
19-SEP-94 13:41:30 500 PURGE	0.00	0.00	0.0	5	1.368	15	17	20	2.04	0.00	7	2	78	78	0.19	14.0	15.2	-0	1.244	1.241	1.241	1.242	1.153	0.004	0.005	0.005	0.042	0.030
19-SEP-94 13:42:30 500 PURGE	0.00	0.00	0.0	4	1.367	15	18	20	2.10	0.00	7	2	78	78	0.10	13.9	15.2	0	1.241	1.243	1.237	1.243	1.150	0.004	0.006	0.006	0.034	0.023
19-SEP-94 13:43:30 500 PURGE	0.00	0.00	0.0	4	1.365	14	18	20	2.07	0.00	7	2	78	78	0.12	13.9	15.2	-0	1.250	1.240	1.240	1.249	1.147	0.004	0.004	0.005	0.029	0.021
19-SEP-94 13:44:30 500 PURGE	0.00	0.00	0.0	4	1.362	15	18	21	2.12	0.00	7	3	78	78	0.00	13.8	15.1	-0	1.242	1.247	1.249	1.243	1.153	0.007	0.007	0.006	0.040	0.018
19-SEP-94 13:45:30 500 PURGE	0.00	0.00	0.0	4	1.359	15	20	20	2.13	0.00	10	5	78	78	0.11	13.9	15.1	-0	1.243	1.239	1.243	1.241	1.156	0.002	0.004	0.007	0.039	0.023
19-SEP-94 13:46:30 500 PURGE	0.00	0.00	0.0	4	1.358	15	21	20	2.45	0.00	10	5	78	78	0.13	14.0	15.2	-0	1.249	1.245	1.249	1.243	1.154	0.002	0.006	0.007	0.038	0.023
19-SEP-94 13:47:30 500 PURGE	0.00	0.00	0.0	4	1.354	15	23	20	2.07	0.00	13	7	78	77	0.23	13.9	15.1	-0	1.244	1.247	1.250	1.243	1.149	0.001	0.005	0.007	0.037	0.032
19-SEP-94 13:48:30 500 PURGE	0.00	0.00	0.0	4	1.351	15	34	20	1.99	0.00	23	10	78	77	0.15	13.9	15.1	-0	1.242	1.243	1.237	1.238	1.140	0.006	0.007	0.006	0.046	0.046
19-SEP-94 13:49:30 500 PURGE	0.00	0.00	0.0	4	1.350	15	44	20	1.99	0.00	34	20	78	78	0.11	14.0	15.2	-0	1.247	1.244	1.239	1.239	1.151	0.002	0.004	0.006	0.037	0.033
19-SEP-94 13:50:30 500 PROCESS-VENT	1.00	0.22	0.0	4	1.613	16	54	22	2.25	2.36	36	37	78	78	0.32	13.9	15.1	12	1.231	1.222	1.228	1.227	1.098	0.046	0.029	0.026	0.045	0.210
19-SEP-94 13:51:30 500 PROCESS-VENT	4.37	0.79	0.0	4	1.738	25	63	31	1.93	3.42	44	36	79	78	0.33	13.9	15.2	33	1.230	1.228	1.226	1.227	1.111	0.040	0.015	0.015	0.038	0.170
19-SEP-94 13:52:30 500 PROCESS-VENT	10.28	1.20	0.0	4	1.910	42	73	40	1.98	4.37	53	29	82	79	0.25	14.0	15.1	57	1.232	1.233	1.232	1.230	1.053	0.032	0.012	0.018	0.042	0.547
19-SEP-94 13:53:37 500 PROCESS-VENT	11.45	1.43	0.0	3	2.023	43	83	40	1.88	3.90	60	18	86	78	0.33	14.0	15.2	60	1.241	1.241	1.241	1.236	1.007	0.012	0.013	0.021	0.040	0.029
19-SEP-94 13:54:30 500 PROCESS-VENT	11.37	1.42	0.0	3	2.019	72	92	70	1.78	4.15	64	10	89	78	0.28	13.9	15.1	60	1.238	1.242	1.244	1.233	0.902	0.013	0.010	0.022	0.049	0.934

HIGH cell voltages

Change HI limit to 2.5 VDC

DATE: 19-SEP-94 LFSPE OXYGEN GENERATION TIME: 13:54:55
MODE: ON STATE: PROCESS-VENT STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.46 LB/DAY HYDROGEN PRODUCTION RATE: 1.43 LB/DAY
OPERATING TIME: 0.0 HOURS LAST SOG LEVEL: 2

C6746-2 -1 % LEL H2V740-2 1.234 V VLT906-2 1.952 V
C6746-3 -0 % LEL H2V740-3 1.232 V VLT906-3 1.950 V
C6746-4 -1 % LEL H2V740-4 1.228 V VLT906-4 1.943 V
CS755 0.0 UMHO/CM H2V900 0.979 V VLT906-5 1.907 V
1766 60 AMPS H2PAVG 1.182 V VLT906-6 1.973 V
VLT906-7 2.070 V
1760-1 0.015 A VLT906-8 2.082 V
1760-2 0.021 A VLT906-9 2.060 V
1760-3 0.024 A VLT906-10 2.021 V
1760-4 0.065 A VLT906-11 2.205 V ← S/D WAS 2.1 VDC ; CHANGED TO 2.5 VDC
1900 0.955 A VLT906-12 2.076 V
CELLAVG 2.019 V

→ S/D WAS 0.5 MAX (OR 0.2 FOR 30 SECONDS)
ARE STRIPPER CELLS GETTING CURRENT? CHECK BOARD THAT CONTROLS STRIPPER CELLS; CHECK POWER SUPPLY.

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

19-SEP-94 13:55:30 500 PROCESS-VENT	11.40	1.42	0.0	3	2.010	81	102	86	1.06	5.10	66	10	91	78	0.35	10.1	15.2	40	1.253	1.250	1.259	1.259	0.974	0.017	0.020	0.031	0.070	0.971

DATE: 19-SEP-94 LFSPE OXYGEN GENERATION TIME: 13:56:03
MODE: ON STATE: PROCESS-VENT STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.42 LB/DAY HYDROGEN PRODUCTION RATE: 1.42 LB/DAY
OPERATING TIME: 0.0 HOURS LAST ADS LEVEL: 3
C6746-1 -2 % LEL H2V740-1 1.249 V VLT906-1 1.979 V
C6746-2 -1 % LEL H2V740-2 1.255 V VLT906-2 1.939 V
C6746-3 -0 % LEL H2V740-3 1.232 V VLT906-3 1.951 V
C6746-4 -1 % LEL H2V740-4 1.249 V VLT906-4 1.944 V
CS755 0.0 UMHO/CM H2V900 0.930 V VLT906-5 1.906 V
1766 60 AMPS H2PAVG 1.107 V VLT906-6 1.961 V
VLT906-7 2.040 V
1760-1 0.031 A VLT906-8 2.001 V
1760-2 0.020 A VLT906-9 2.056 V
1760-3 0.026 A VLT906-10 2.013 V
1760-4 0.066 A VLT906-11 2.107 V
1900 1.255 A VLT906-12 2.066 V
CELLAVG 2.013 V

→ CONTINUES TO CLIMB; CHECK OPERATION OF STRIPPER CELL CIRCUIT TOMORROW WHEN E.E. COMES OVER.

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

19-SEP-94 13:56:30 500 OFF	0.00	0.00	0.0	3	0.000	83	100	80	1.00	0.44	45	13	91	79	0.29	11.3	12.4	2	1.167	1.162	1.175	1.176	0.453	0.007	0.004	0.004	0.037	0.003
19-SEP-94 13:57:30 500 OFF	0.00	0.00	0.0	3	0.000	39	56	44	1.91	0.00	30	16	88	78	0.31	11.3	12.4	0	0.976	0.973	0.980	0.976	0.374	0.006	0.007	0.005	0.035	0.027
19-SEP-94 13:58:30 500 OFF	0.00	0.00	0.0	5	0.000	18	32	21	1.35	0.00	15	14	87	78	0.00	11.4	12.7	0	0.939	0.935	0.935	0.941	0.371	0.006	0.007	0.002	0.045	0.001
19-SEP-94 13:59:30 500 OFF	0.00	0.00	0.0	5	0.000	15	19	15	0.20	0.00	3	4	85	79	0.00	11.5	12.6	-0	0.908	0.916	0.910	0.912	0.352	0.002	0.002	0.004	0.034	0.020
19-SEP-94 14:00:30 500 OFF	0.00	0.00	0.0	5	0.000	15	19	15	0.29	0.00	3	4	85	78	0.00	11.4	12.5	0	0.901	0.900	0.900	0.895	0.339	0.002	0.002	0.002	0.032	0.015
19-SEP-94 14:01:30 500 OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.26	0.00	3	3	84	78	0.00	11.4	12.7	-0	0.890	0.885	0.890	0.883	0.341	0.002	0.004	0.005	0.040	0.015
19-SEP-94 14:02:37 500 OFF	0.00	0.00	0.0	5	0.000	15	10	15	0.25	0.00	3	3	84	79	0.00	11.4	12.6	0	0.873	0.879	0.859	0.872	0.307	0.001	0.010	0.004	0.033	0.017
19-SEP-94 14:03:30 500 OFF	0.00	0.00	0.0	5	0.000	15	18	15	0.29	0.00	4	3	84	79	0.00	11.4	12.6	0	0.872	0.872	0.871	0.872	0.339	0.005	0.004	0.005	0.045	0.020
19-SEP-94 14:04:37 500 OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.20	0.00	4	3	84	78	0.00	11.4	12.6	-0	0.867	0.864	0.866	0.860	0.330	0.005	0.007	0.004	0.039	0.013
19-SEP-94 14:05:37 500 OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.26	0.00	4	3	83	79	0.00	11.4	12.6	0	0.844	0.863	0.856	0.860	0.320	0.004	0.006	0.004	0.037	0.010
19-SEP-94 14:06:30 500 OFF	0.00	0.00	0.0	5	0.000	15	18	15	0.20	0.00	4	3	83	78	0.00	11.4	12.6	0	0.858	0.842	0.861	0.855	0.319	0.001	0.005	0.002	0.037	0.011
19-SEP-94 14:07:37 500 OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.27	0.00	5	3	83	78	0.00	11.4	12.6	-0	0.862	0.858	0.856	0.852	0.324	0.002	0.005	0.002	0.035	0.026
19-SEP-94 14:08:37 500 OFF	0.00	0.00	0.0	5	0.000	15	18	15	0.29	0.00	5	3	83	79	0.00	11.4	12.4	-0	0.842	0.850	0.844	0.852	0.322	0.005	0.006	0.004	0.039	0.031
19-SEP-94 14:09:37 500 OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.33	0.00	5	3	82	79	0.00	11.3	12.5	-0	0.845	0.853	0.845	0.858	0.320	0.005	0.004	0.001	0.042	0.031
19-SEP-94 14:10:37 500 OFF	0.00	0.00	0.0	5	0.000	14	18	15	0.29	0.00	5	3	82	79	0.00	11.4	12.5	0	0.850	0.847	0.845	0.845	0.322	0.002	0.004	0.002	0.043	0.030

FSPE OXYGEN GENERATION

DATE	TIME	MODE	STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-606	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP708 PSID	DP749-1 PSID	DP749-2 PSID	T762-1 F	T736-1 F	CALC745 GPM	LEV605-1 CU IN	LEV605-2 CU IN	I766 AMPS	H2V760-1 V	H2V760-2 V	H2V760-3 V	H2V760-4 V	H2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
20-SEP-94	09:30:34	500	PURGE	0.00	0.00	0.0	6	0.151	13	19	20	1.66	0.00	6	4	68	69	0.04	12.6	15.1	-0	1.231	1.233	1.228	1.226	1.160	0.006	0.005	0.009	0.046	0.039
20-SEP-94	09:31:33	500	PURGE	0.00	0.00	0.0	6	0.140	14	19	20	1.45	0.00	5	4	68	69	0.03	12.6	15.0	-1	1.231	1.232	1.226	1.226	1.150	0.004	0.005	0.010	0.050	0.051
20-SEP-94	09:32:33	500	PURGE	0.00	0.00	0.0	6	0.149	13	19	14	0.26	0.00	5	5	69	69	0.09	12.6	15.2	-1	1.232	1.233	1.233	1.230	1.154	0.005	0.007	0.006	0.042	0.042
20-SEP-94	09:33:34	500	PURGE	0.00	0.00	0.0	6	0.140	13	19	13	0.27	0.00	5	5	69	69	0.20	12.6	15.2	-1	1.230	1.227	1.226	1.231	1.155	0.006	0.005	0.005	0.046	0.037
20-SEP-94	09:34:33	500	PURGE	0.00	0.00	0.0	6	0.149	13	19	19	0.29	0.00	5	5	69	69	0.12	12.0	15.2	-0	1.226	1.230	1.231	1.221	1.159	0.007	0.006	0.006	0.046	0.020
20-SEP-94	09:35:33	500	PURGE	0.00	0.00	0.0	6	0.140	14	19	15	0.22	0.00	5	4	69	69	0.00	12.6	15.2	-1	1.220	1.226	1.232	1.223	1.159	0.006	0.007	0.007	0.046	0.033
20-SEP-94	09:36:33	500	PURGE	0.00	0.00	0.0	6	0.149	14	20	15	0.28	0.00	5	4	69	69	0.00	15.1	15.2	-0	1.226	1.220	1.230	1.220	1.160	0.002	0.004	0.010	0.040	0.024
20-SEP-94	09:37:33	500	PURGE	0.00	0.00	0.0	6	0.149	14	20	16	0.25	0.00	5	4	69	69	0.00	12.4	15.2	-1	1.231	1.231	1.227	1.223	1.155	0.005	0.009	0.006	0.037	0.040
20-SEP-94	09:38:33	500	PURGE	0.00	0.00	0.0	6	0.149	15	19	17	0.23	0.00	5	4	69	69	0.00	13.9	15.2	-1	1.234	1.230	1.233	1.226	1.156	0.005	0.006	0.006	0.049	0.034
20-SEP-94	09:39:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	17	0.23	0.00	5	4	69	69	0.00	15.0	15.0	-1	1.231	1.219	1.225	1.227	1.153	0.007	0.005	0.006	0.045	0.037
20-SEP-94	09:40:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	17	0.23	0.00	5	4	69	69	0.00	12.6	15.2	-1	1.230	1.231	1.226	1.221	1.164	0.002	0.005	0.007	0.046	0.040
20-SEP-94	09:41:33	500	PURGE	0.00	0.00	0.0	6	0.149	15	19	17	0.21	0.00	5	4	69	69	0.00	15.2	15.2	-1	1.220	1.230	1.225	1.233	1.156	0.007	0.006	0.007	0.037	0.040
20-SEP-94	09:42:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	17	0.18	0.00	5	4	69	69	0.00	12.4	15.2	-1	1.223	1.230	1.221	1.226	1.154	0.002	0.009	0.007	0.037	0.043
20-SEP-94	09:43:33	500	PURGE	0.00	0.00	0.0	6	0.149	15	19	17	0.15	0.00	5	4	69	69	0.00	15.1	15.2	-1	1.231	1.231	1.225	1.227	1.153	0.004	0.005	0.006	0.040	0.026
20-SEP-94	09:44:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	18	0.15	0.00	5	4	69	69	0.00	12.6	15.0	-0	1.226	1.220	1.233	1.231	1.154	0.004	0.009	0.002	0.044	0.035
20-SEP-94	09:45:33	500	PURGE	0.00	0.00	0.0	6	0.147	15	19	23	1.35	0.00	5	4	70	69	0.13	14.0	15.1	-1	1.225	1.225	1.225	1.226	1.154	0.004	0.007	0.007	0.046	0.028
20-SEP-94	09:46:33	500	PURGE	0.00	0.00	0.0	6	0.149	15	19	22	1.54	0.00	5	4	70	69	0.07	14.0	15.2	-1	1.220	1.226	1.232	1.231	1.160	0.004	0.006	0.005	0.043	0.057
20-SEP-94	09:47:33	500	PURGE	0.00	0.00	0.0	6	0.147	15	19	22	1.37	0.00	5	4	70	69	0.00	13.9	15.1	-1	1.224	1.220	1.230	1.223	1.153	0.005	0.006	0.010	0.039	0.029
20-SEP-94	09:48:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	21	1.62	0.00	5	4	70	70	0.00	13.9	15.2	-0	1.220	1.227	1.226	1.230	1.155	0.004	0.007	0.006	0.044	0.042
20-SEP-94	09:49:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	21	1.50	0.00	5	4	70	69	0.15	14.0	15.0	-1	1.231	1.227	1.222	1.227	1.155	0.005	0.007	0.009	0.044	0.034
20-SEP-94	09:50:33	500	PURGE	0.00	0.00	0.0	6	0.147	15	19	21	1.40	0.00	5	4	70	69	0.00	14.0	15.2	-1	1.220	1.225	1.225	1.223	1.149	0.006	0.006	0.006	0.044	0.073
20-SEP-94	09:51:33	500	PURGE	0.00	0.00	0.0	6	0.140	15	19	21	1.39	0.00	5	4	70	69	0.00	14.0	15.1	-0	1.227	1.223	1.220	1.220	1.155	0.005	0.004	0.007	0.042	0.020
20-SEP-94	09:52:33	500	PURGE	0.00	0.00	0.0	6	0.147	15	19	20	1.63	0.00	5	4	70	69	0.11	13.9	15.1	-0	1.232	1.234	1.225	1.233	1.159	0.006	0.005	0.009	0.040	0.042
20-SEP-94	09:53:33	500	PURGE	0.00	0.00	0.0	5	0.146	15	19	20	1.66	0.00	5	4	70	70	0.00	13.9	15.2	-1	1.227	1.230	1.222	1.215	1.154	0.007	0.007	0.005	0.045	0.020
20-SEP-94	09:54:33	500	PURGE	0.00	0.00	0.0	4	0.147	15	19	20	1.71	0.00	5	4	70	70	0.00	14.0	15.2	-0	1.232	1.230	1.230	1.222	1.156	0.010	0.006	0.010	0.043	0.035
20-SEP-94	09:55:33	500	PURGE	0.00	0.00	0.0	4	0.140	15	19	20	1.67	0.00	5	4	70	69	0.12	13.9	15.2	-1	1.221	1.227	1.231	1.223	1.160	0.006	0.007	0.010	0.050	0.044
20-SEP-94	09:56:33	500	PURGE	0.00	0.00	0.0	4	0.147	14	19	20	1.71	0.00	5	4	70	69	0.06	14.0	15.2	-1	1.230	1.222	1.224	1.227	1.156	0.005	0.005	0.006	0.044	0.042
20-SEP-94	09:57:33	500	PURGE	0.00	0.00	0.0	4	0.146	15	20	20	1.70	0.00	6	5	70	70	0.00	13.9	15.2	-0	1.221	1.225	1.226	1.225	1.154	0.006	0.006	0.005	0.044	0.042
20-SEP-94	09:58:33	500	PURGE	0.00	0.00	0.0	4	0.140	15	21	20	1.65	0.00	7	6	70	69	0.05	13.9	15.2	-0	1.220	1.227	1.226	1.223	1.162	0.009	0.005	0.005	0.042	0.024
20-SEP-94	09:59:33	500	PURGE	0.00	0.00	0.0	4	0.147	14	21	20	1.63	0.00	7	6	70	69	0.03	13.9	15.1	-1	1.220	1.225	1.223	1.221	1.154	0.005	0.006	0.007	0.035	0.050
20-SEP-94	10:00:33	500	PURGE	0.00	0.00	0.0	4	0.149	15	38	19	1.72	0.00	16	15	71	69	0.21	13.9	15.2	-1	1.228	1.220	1.227	1.220	1.154	0.005	0.009	0.007	0.040	0.020
20-SEP-94	10:01:33	500	PURGE	0.00	0.00	0.0	4	0.140	14	40	20	1.69	0.00	27	25	71	70	0.00	14.0	15.1	-0	1.220	1.220	1.223	1.219	1.155	0.006	0.006	0.006	0.039	0.011
20-SEP-94	10:02:33	500	PROCESS-VENT	0.00	0.00	0.0	4	0.143	14	50	20	1.68	0.00	37	35	71	70	0.09	13.9	15.1	-1	1.225	1.225	1.226	1.223	1.155	0.006	0.005	0.005	0.040	0.012
20-SEP-94	10:02:46	207	FAIL	0.00	0.00	0.0	4	1.100	14	53	20	1.72	0.00	39	37	71	70	0.15	14.0	15.3	0	1.231	1.231	1.225	1.231	1.140	0.004	0.005	0.006	0.037	0.033
20-SEP-94	10:03:33	500	PURGE	0.00	0.00	0.0	4	1.294	13	32	14	0.25	0.00	19	10	71	69	0.11	12.6	15.1	-0	1.243	1.241	1.239	1.238	1.156	0.004	0.002	0.006	0.035	0.027
20-SEP-94	10:04:33	500	PURGE	0.00	0.00	0.0	5	1.253	14	19	15	0.22	0.00	6	4	71	69	0.00	13.9	15.1	-0	1.240	1.243	1.237	1.242	1.150	0.004	0.004	0.007	0.042	0.026
20-SEP-94	10:05:33	500	PURGE	0.00	0.00	0.0	5	1.219	15	19	15	0.23	0.00	5	3	71	69	0.00	12.7	15.2	-0	1.241	1.243	1.245	1.243	1.149	0.006	0.005	0.006	0.046	0.022
20-SEP-94	10:06:33	500	PURGE	0.00	0.00	0.0	5	1.191	15	19	16	0.20	0.00	5	3	71	70	0.00	12.6	15.2	-0	1.243	1.245	1.242	1.249	1.156	0.005	0.005	0.006	0.044	0.027
20-SEP-94	10:07:33	500	PURGE	0.00	0.00	0.0	5	1.164	15	19	16	0.21	0.00	5	3	71	70	0.00	15.2	15.1	0	1.238	1.245	1.242	1.245	1.159	0.002	0.006	0.010	0.044	0.035
20-SEP-94	10:08:33	500	PURGE	0.00	0.00	0.0	5	1.136	15	18	16	0.20	0.00	5	3	71	70	0.00	12.6	15.2	-0	1.242	1.241	1.238	1.233	1.159	0.009	0.006	0.012	0.035	0.027
20-SEP-94	10:09:33	500	PURGE	0.00	0.00	0.0	5	1.106	15	18	16	0.21	0.00	5	3	71	70	0.00	13.9	15.1	-0	1.242	1.242	1.232	1.243	1.151	0.005	0.007	0.009	0.045	0.056
20-SEP-94	10:10:32	500	PURGE	0.00	0.00	0.0	5	1.078	15	19	14	0.23	0.00	5	3	71	70	0.00	11.4	15.1	-0	1.243	1.244	1.247	1.244	1.150	0.005	0.004	0.005	0.034	0.027
20-SEP-94	10:11:32	500	PURGE	0.00	0.00	0.0	5	1.053	15	18	17	0.18	0.00	5	3	71	70	0.00	12.4	15.1	-0	1.244	1.238	1.245	1.238	1.149	0.006	0.006	0.002	0.044	0.029
20-SEP-94	10:12:33	500	PURGE	0.00	0.00	0.0	5	1.019	15	18	17	0.17	0.00	5	3	71	71	0.00	14.0	15.2	-0	1.249	1.250	1.249	1.236	1.156	0.006	0.007	0.006	0.040	0.040
20-SEP-94	10:13:33	500	PURGE	0.00	0.00	0.0	6	0.976	15	18	17	0.17	0.00	5	2	71	70	0.00	15.2	15.1	-0	1.237	1.249	1.243	1.239	1.150	0.006	0.005	0.002	0.044	0.023
20-SEP-94	10:14:32	500	PURGE	0.00	0.00	0.0	6	0.921	16	19	18	0.16	0.00	5	2	71	71	0.00	12.6	15.1	-0	1.247	1.250	1.250	1.237	1.162	0.004	0.004	0.006	0.043	0.046
20-SEP-94	10:15:32	500	PURGE	0.00	0.00	0.0	7	0.855	15	18	24	1.55	0.00	5	2	71	71	0.00	14.0	15.1	-0	1.242	1.245	1.249	1.243	1.156	0.004	0.007	0.004	0.030	0.034
20-SEP-94	10:16:33	500	PURGE	0.00	0.00	0.0	6	0.795	15	18	23	1.50	0.00	5	3	72	70	0.00	14.0	15.2	-0	1.243	1.247	1.241	1.236	1.150	0.005	0.004	0.007	0.039	0.039
20-SEP-94	10:17:32	500	PURGE	0.00	0.00	0.0	6	0.747	15	18	22	1.41	0.00	5	3	72	70	0.02	14.0	15.2	-0	1.243	1.253	1.243	1.236	1.159	0.005	0.005	0.006	0.040	0.005
20-SEP-94	10:18:32	500	PURGE	0.00	0.00	0.0	6	0.705	15	18	22	1.45	0.00	5	3	72	71	0.11	14.0	15.2	-0	1.244	1.240	1.231	1.233	1.156	0.005	0.006	0.009	0.038	0.011
20-SEP-94	10:19:32	500	PURGE	0.00	0.00	0.0	6	0.672	15	18	21	1.40	0.00	5	3	72	71	0.00	14.0	15.2	-0	1.238	1.247	1.230	1.241	1.150	0.004	0.006	0.007	0.044	0.032
20-SEP-94	10:20:33	500	PURGE	0.00	0.00	0.0	6	0.645	15	18	21	1.70	0.00	5	3	72	71	0.00	13.9	15.3	-0	1.249	1.240	1.237	1.231	1.150	0.005	0.007	0.005	0.044	0.040
20-SEP-94	10:21:33	500	PURGE	0.00	0.00	0.0	6	0.624	15	18	21	1.70	0.00	5	3	72	71	0.00	13.9	15.2	-0	1.232	1.241	1.245	1.236	1.153	0.004	0.006	0.005	0.039	0.029
20-SEP-94	10:22:32	500	PURGE	0.00	0.00	0.0	6	0.607	15	18	20	1.79	0.00	5	3	72	71	0.16	13.9	15.1	-0	1.239	1.241	1.233	1.237	1.155	0.004	0.005	0.005	0.044	0.029
20-SEP-94	10:23:32	500	PURGE	0.00	0.00	0.0	6	0.590	13	18	14	0.20	0.00	5	4	72	71	0.18	14.0	15.2	-0	1.239	1.237	1.237	1.237	1.155	0.004	0.005	0.005	0.044	0.039
20-SEP-94	10:24:32	500	PURGE	0.00	0.00	0.0	6	0.570	13	18	14	0.23	0.00	5	4	72	71	0.17	13.9	15.1	-0	1.232	1.226	1.225	1.220	1.140	0.010	0.007	0.013	0.051	0.033

Was cell voltage - forgot to turn output breaker "on" (did too late)

20-SEP-94 10:26:32	500	PURGE	0.00	0.00	0.0	6	0.550	15	18	15	0.23	0.00	5	3	72	72	0.00	12.6	15.2	-0	1.243	1.238	1.241	1.234	1.158	0.009	0.005	0.006	0.044	0.055
20-SEP-94 10:27:32	500	PURGE	0.00	0.00	0.0	6	0.550	15	18	15	0.23	0.00	5	3	72	72	0.00	14.6	15.2	-0	1.234	1.242	1.231	1.228	1.154	0.006	0.007	0.009	0.046	0.037
20-SEP-94 10:28:32	500	PURGE	0.00	0.00	0.0	6	0.541	15	18	16	0.22	0.00	5	3	72	72	0.00	10.7	15.1	-0	1.236	1.233	1.233	1.238	1.159	0.006	0.005	0.009	0.049	0.040
20-SEP-94 10:29:32	500	PURGE	0.00	0.00	0.0	6	0.532	15	18	17	0.21	0.00	5	3	72	72	0.00	12.6	15.2	-0	1.236	1.237	1.239	1.237	1.156	0.004	0.005	0.008	0.042	0.037
20-SEP-94 10:30:32	500	PURGE	0.00	0.00	0.0	6	0.526	15	18	16	0.17	0.00	5	3	72	71	0.00	15.1	15.1	-0	1.239	1.238	1.234	1.231	1.155	0.009	0.010	0.011	0.043	0.031
20-SEP-94 10:31:32	500	PURGE	0.00	0.00	0.0	6	0.522	15	18	17	0.18	0.00	5	3	72	72	0.00	12.6	15.1	-1	1.239	1.236	1.238	1.228	1.149	0.006	0.002	0.007	0.040	0.032
20-SEP-94 10:32:32	500	PURGE	0.00	0.00	0.0	6	0.515	15	18	17	0.16	0.00	5	3	72	72	0.00	14.1	15.2	-0	1.238	1.234	1.232	1.227	1.154	0.005	0.007	0.010	0.045	0.028
20-SEP-94 10:33:32	500	PURGE	0.00	0.00	0.0	6	0.505	15	18	18	0.16	0.00	5	3	72	72	0.00	11.3	15.2	-1	1.241	1.243	1.232	1.238	1.154	0.002	0.007	0.007	0.033	0.016
20-SEP-94 10:34:32	500	PURGE	0.00	0.00	0.0	6	0.499	15	19	17	0.21	0.00	5	3	72	72	0.00	13.9	15.2	-0	1.238	1.245	1.236	1.236	1.150	0.005	0.006	0.009	0.043	0.026
20-SEP-94 10:35:32	500	PURGE	0.00	0.00	0.0	7	0.494	15	19	24	1.59	0.00	6	3	73	72	0.00	12.7	15.1	-0	1.232	1.238	1.243	1.233	1.158	0.006	0.004	0.005	0.035	0.037
20-SEP-94 10:36:32	500	PURGE	0.00	0.00	0.0	6	0.488	15	18	23	1.58	0.00	5	3	73	72	0.00	12.6	15.1	-0	1.243	1.242	1.237	1.225	1.158	0.002	0.002	0.010	0.045	0.027
20-SEP-94 10:37:32	500	PURGE	0.00	0.00	0.0	6	0.476	15	19	22	1.58	0.00	5	3	73	72	0.05	12.6	15.2	-0	1.236	1.242	1.238	1.233	1.155	0.005	0.006	0.006	0.045	0.027
20-SEP-94 10:38:32	500	PURGE	0.00	0.00	0.0	6	0.469	14	19	21	1.56	0.00	6	4	73	72	0.15	12.6	15.2	-0	1.233	1.245	1.239	1.232	1.153	0.006	0.006	0.006	0.045	0.040
20-SEP-94 10:39:32	500	PURGE	0.00	0.00	0.0	6	0.461	15	19	22	1.56	0.00	6	4	73	73	0.00	12.6	15.1	-0	1.238	1.247	1.237	1.222	1.156	0.005	0.006	0.010	0.035	0.028
20-SEP-94 10:40:32	500	PURGE	0.00	0.00	0.0	6	0.449	14	19	21	1.57	0.00	5	3	73	72	0.18	12.5	15.1	-0	1.237	1.234	1.239	1.225	1.154	0.007	0.004	0.009	0.044	0.058
20-SEP-94 10:41:32	500	PURGE	0.00	0.00	0.0	6	0.440	15	19	21	1.56	0.00	6	3	73	72	0.14	12.6	15.2	-0	1.234	1.236	1.228	1.238	1.158	0.005	0.004	0.006	0.032	0.038
20-SEP-94 10:42:32	500	PURGE	0.00	0.00	0.0	6	0.432	15	19	21	1.66	0.00	6	3	73	73	0.14	12.6	15.0	-0	1.236	1.238	1.227	1.225	1.161	0.006	0.005	0.009	0.031	0.021
20-SEP-94 10:43:32	500	PURGE	0.00	0.00	0.0	6	0.420	15	18	21	1.61	0.00	6	3	73	73	0.00	12.7	15.2	-1	1.237	1.245	1.231	1.232	1.155	0.009	0.004	0.006	0.040	0.032
20-SEP-94 10:44:32	500	PURGE	0.00	0.00	0.0	6	0.415	15	19	21	1.58	0.00	6	3	73	73	0.02	12.7	15.1	-0	1.238	1.236	1.233	1.219	1.155	0.005	0.007	0.011	0.044	0.034
20-SEP-94 10:45:32	500	PURGE	0.00	0.00	0.0	6	0.406	13	19	13	0.34	0.00	6	5	73	72	0.22	12.7	15.0	-0	1.237	1.236	1.233	1.228	1.160	0.004	0.004	0.010	0.045	0.028
20-SEP-94 10:46:32	500	PURGE	0.00	0.00	0.0	6	0.396	13	19	14	0.24	0.00	6	5	73	72	0.15	12.6	15.1	-0	1.245	1.241	1.232	1.219	1.158	0.005	0.006	0.009	0.045	0.034

20-SEP-94 10:47:32	500	PURGE	0.00	0.00	0.0	6	0.388	14	19	14	0.28	0.00	6	5	73	73	0.05	12.6	15.1	-0	1.231	1.233	1.233	1.232	1.149	0.005	0.009	0.010	0.039	0.032
20-SEP-94 10:48:32	500	PURGE	0.00	0.00	0.0	6	0.384	15	19	15	0.23	0.00	6	4	73	72	0.00	14.0	15.2	-1	1.234	1.231	1.231	1.234	1.156	0.007	0.009	0.009	0.046	0.033
20-SEP-94 10:49:32	500	PURGE	0.00	0.00	0.0	6	0.378	14	19	16	0.22	0.00	6	4	73	73	0.00	15.1	15.2	-0	1.231	1.238	1.236	1.238	1.155	0.007	0.005	0.006	0.044	0.040
20-SEP-94 10:50:32	500	PURGE	0.00	0.00	0.0	6	0.374	15	19	16	0.29	0.00	6	4	73	73	0.00	12.6	15.1	-0	1.238	1.241	1.238	1.227	1.159	0.004	0.006	0.004	0.040	0.032
20-SEP-94 10:51:32	500	PURGE	0.00	0.00	0.0	6	0.370	15	19	16	0.22	0.00	6	4	73	73	0.00	13.9	15.1	-0	1.233	1.238	1.234	1.227	1.159	0.005	0.006	0.009	0.037	0.022
20-SEP-94 10:52:32	500	PURGE	0.00	0.00	0.0	6	0.364	14	18	16	0.22	0.00	6	3	73	73	0.00	15.1	15.2	-0	1.238	1.236	1.226	1.227	1.155	0.007	0.007	0.011	0.042	0.024
20-SEP-94 10:53:32	500	PURGE	0.00	0.00	0.0	6	0.360	15	19	17	0.22	0.00	6	3	73	73	0.00	12.6	15.2	-0	1.236	1.237	1.233	1.223	1.155	0.004	0.005	0.007	0.043	0.044
20-SEP-94 10:54:31	500	PURGE	0.00	0.00	0.0	6	0.357	15	19	17	0.21	0.00	6	3	73	73	0.00	14.0	15.1	-1	1.238	1.234	1.234	1.234	1.154	0.005	0.004	0.005	0.039	0.045
20-SEP-94 10:55:32	500	PURGE	0.00	0.00	0.0	6	0.353	15	19	17	0.18	0.00	6	4	73	73	0.00	15.1	15.1	-0	1.231	1.237	1.223	1.227	1.151	0.004	0.006	0.007	0.045	0.029
20-SEP-94 10:56:32	500	PURGE	0.00	0.00	0.0	7	0.350	15	19	23	1.32	0.00	6	3	73	73	0.00	13.9	15.2	-0	1.227	1.232	1.232	1.231	1.159	0.005	0.004	0.005	0.044	0.043
20-SEP-94 10:57:31	500	PURGE	0.00	0.00	0.0	6	0.347	15	18	23	1.51	0.00	6	3	74	73	0.00	14.0	15.1	-0	1.242	1.241	1.237	1.231	1.158	0.009	0.009	0.006	0.043	0.042
20-SEP-94 10:58:32	500	PURGE	0.00	0.00	0.0	6	0.341	15	19	23	1.58	0.00	6	3	74	73	0.00	13.9	15.2	-1	1.233	1.232	1.236	1.228	1.160	0.005	0.007	0.005	0.043	0.028
20-SEP-94 10:59:32	500	PURGE	0.00	0.00	0.0	6	0.337	15	19	22	1.58	0.00	6	3	74	73	0.07	14.0	15.1	-1	1.226	1.233	1.237	1.232	1.147	0.005	0.006	0.002	0.038	0.017
20-SEP-94 11:00:32	500	PURGE	0.00	0.00	0.0	6	0.334	15	19	22	1.53	0.00	6	4	74	73	0.00	14.0	15.0	-1	1.232	1.234	1.232	1.221	1.161	0.006	0.007	0.007	0.045	0.021
20-SEP-94 11:01:31	500	PURGE	0.00	0.00	0.0	6	0.330	15	19	21	1.54	0.00	6	4	74	73	0.09	13.9	15.1	-1	1.238	1.230	1.234	1.223	1.158	0.004	0.006	0.005	0.044	0.021
20-SEP-94 11:02:31	500	PURGE	0.00	0.00	0.0	6	0.324	15	19	21	1.58	0.00	6	4	74	73	0.06	13.9	15.1	-1	1.231	1.241	1.243	1.238	1.155	0.004	0.005	0.006	0.043	0.029
20-SEP-94 11:03:31	500	PURGE	0.00	0.00	0.0	6	0.325	14	18	21	1.59	0.00	5	4	74	73	0.00	13.0	15.1	-1	1.237	1.234	1.231	1.238	1.160	0.006	0.006	0.004	0.042	0.042
20-SEP-94 11:04:31	500	PURGE	0.00	0.00	0.0	6	0.319	14	19	21	1.55	0.00	6	4	74	73	0.00	13.9	15.0	-1	1.239	1.245	1.233	1.231	1.150	0.004	0.004	0.004	0.042	0.038
20-SEP-94 11:05:32	500	PURGE	0.00	0.00	0.0	6	0.316	15	19	20	1.55	0.00	6	3	74	73	0.17	14.0	15.2	-1	1.225	1.228	1.238	1.238	1.155	0.009	0.006	0.007	0.048	0.022
20-SEP-94 11:06:31	500	PURGE	0.00	0.00	0.0	6	0.315	15	19	20	1.54	0.00	5	4	74	73	0.00	13.0	15.2	-0	1.236	1.242	1.234	1.228	1.151	0.006	0.006	0.007	0.038	0.053
20-SEP-94 11:07:31	500	PURGE	0.00	0.00	0.0	5	0.313	15	18	20	1.59	0.00	5	4	74	73	0.00	13.9	15.1	-0	1.225	1.237	1.232	1.226	1.156	0.007	0.009	0.009	0.039	0.026
20-SEP-94 11:08:31	500	PURGE	0.00	0.00	0.0	5	0.311	14	18	20	1.41	0.00	6	4	75	73	0.00	13.9	15.1	-0	1.236	1.231	1.231	1.234	1.161	0.004	0.005	0.006	0.042	0.027
20-SEP-94 11:09:31	500	PURGE	0.00	0.00	0.0	6	0.309	14	18	20	1.46	0.00	6	4	74	73	0.17	13.9	15.2	-0	1.225	1.232	1.221	1.227	1.150	0.005	0.006	0.009	0.030	0.046
20-SEP-94 11:10:31	500	PURGE	0.00	0.00	0.0	6	0.308	14	19	20	1.40	0.00	6	4	74	73	0.19	13.9	15.1	-1	1.231	1.232	1.220	1.227	1.155	0.005	0.006	0.006	0.040	0.031
20-SEP-94 11:11:31	500	PURGE	0.00	0.00	0.0	6	0.306	14	19	20	1.46	0.00	5	4	74	73	0.14	13.9	15.2	-0	1.233	1.231	1.230	1.233	1.154	0.005	0.006	0.005	0.030	0.032
20-SEP-94 11:12:31	500	PURGE	0.00	0.00	0.0	6	0.302	14	20	20	1.41	0.00	6	5	75	73	0.12	13.9	15.0	-1	1.227	1.230	1.233	1.234	1.159	0.005	0.010	0.009	0.044	0.031
20-SEP-94 11:13:31	500	PURGE	0.00	0.00	0.0	6	0.300	14	21	20	1.45	0.00	7	6	75	73	0.02	13.0	15.1	-1	1.228	1.230	1.231	1.227	1.156	0.006	0.006	0.009	0.037	0.022
20-SEP-94 11:14:31	500	PURGE	0.00	0.00	0.0	6	0.299	14	21	20	1.43	0.00	7	6	75	73	0.00	13.9	15.1	-0	1.232	1.231	1.227	1.233	1.140	0.009	0.009	0.010	0.043	0.007
20-SEP-94 11:15:31	500	PURGE	0.00	0.00	0.0	6	0.299	14	31	20	1.46	0.00	17	15	75	73	0.12	14.0	15.2	-1	1.230	1.239	1.227	1.225	1.151	0.007	0.007	0.006	0.040	0.026
20-SEP-94 11:16:31	500	PURGE	0.00	0.00	0.0	6	0.296	14	42	20	1.41	0.00	28	26	75	73	0.11	13.9	15.1	-0	1.230	1.222	1.225	1.225	1.156	0.005	0.004	0.009	0.042	0.026
20-SEP-94 11:17:31	500	PROCESS-VENT	0.73	0.07	0.0	6	1.276	14	52	21	1.74	0.00	39	36	75	73	0.10	14.0	15.0	6	1.230	1.243	1.231	1.228	1.136	0.005	0.009	0.007	0.043	0.022
20-SEP-94 11:17:46	230	FAIL	1.72	0.21	0.0	4	1.403	16	55	21	1.91	0.27	36	37	75	73	0.29	13.9	15.1	12	1.227	1.232	1.230	1.228	1.040	0.006	0.007	0.005	0.043	0.353
20-SEP-94 11:18:31	230	FAIL	0.00	0.00	0.0	5	0.000	17	39	22	1.72	0.00	22	22	75	74	0.26	14.0	15.2	-0	1.201	1.199	1.173	1.171	0.554	0.004	0.004	0.004	0.043	0.017
20-SEP-94 11:19:31	500	OFF	0.00	0.00	0.0	5	0.000	16	20	21	1.77	0.00	3	4	75	74	0.24	13.0	15.2	0	1.177	1.159	1.123	1.122	0.476	0.004	0.006	0.004	0.033	0.007
20-SEP-94 11:20:31	500	OFF	0.00	0.00	0.0	5	0.000	16	19	21	1.06	0.00	2	2	75	73	0.16	13.0	15.1	0	1.133	1.132	1.087	1.080	0.475	0.005	0.004	0.004	0.043	0.029
20-SEP-94 11:21:31	500	OFF	0.00	0.00	0.0	5	0.000	16	19	21	1.05	0.00	2	2	75	73	0.14	13.9	15.1	-0	1.117	1.117	1.061	1.051	0.417	0.004	0.004	0.004	0.029	0.029
20-SEP-94 11:22:31	500	OFF	0.00	0.00	0.0	5	0.000	15	18	21	1.09	0.00	2	3	75	73	0.15	13.9	15.1	0	1.092	1.099	1.070	1.026	0.430	0.002	0.006	0.002	0.029	0.024

BLOWERS WENT FROM 4 TO 5; WILL RESTART WITH BLOWER AT 3 TO PREVENT S/O.

LFSPE OXYGEN GENERATION

DATE	TIME	AMON	STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-404	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP708 PSID	DP749-1 PSID	DP749-2 PSID	T742-1 F	T736-1 F	CALC745 GPM	LEV605-1 CM IN	LEV605-2 CM IN	I746 AMPS	H2V760-1 V	H2V760-2 V	H2V760-3 V	H2V760-4 V	H2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
20-SEP-94	13:33:24	500	OFF	0.00	0.00	0.0	5	0.000	13	17	14	0.29	0.00	1	3	78	78	0.12	13.9	15.2	0	0.039	0.035	0.010	0.016	0.107	0.002	0.002	0.002	0.042	0.009
20-SEP-94	13:34:24	500	PURGE	0.00	0.00	0.0	5	1.189	14	17	15	0.26	0.00	1	3	78	78	0.00	15.0	15.1	-0	0.915	0.922	0.917	0.911	1.134	0.050	0.050	0.066	0.115	0.048
20-SEP-94	13:35:24	500	PURGE	0.00	0.00	0.0	5	1.188	15	17	15	0.20	0.00	1	2	77	78	0.00	12.6	15.1	-0	1.020	1.017	1.017	1.007	1.149	0.005	0.002	0.096	0.153	0.029
20-SEP-94	13:36:24	500	PURGE	0.00	0.00	0.0	5	1.189	15	17	16	0.25	0.00	1	2	77	78	0.00	13.9	15.1	-0	1.132	1.131	1.122	1.120	1.160	0.054	0.049	0.065	0.117	0.033
20-SEP-94	13:37:24	500	PURGE	0.00	0.00	0.0	5	1.186	15	17	15	0.31	0.00	1	1	77	78	0.00	15.1	15.1	-0	1.154	1.134	1.154	1.159	1.150	0.033	0.027	0.032	0.071	0.021
20-SEP-94	13:38:24	500	PURGE	0.00	0.00	0.0	5	1.189	16	17	16	0.25	0.00	1	1	77	78	0.00	12.6	15.1	-0	1.201	1.194	1.200	1.199	1.155	0.020	0.021	0.020	0.072	0.037
20-SEP-94	13:39:24	500	PURGE	0.00	0.00	0.0	5	1.181	16	18	17	0.23	0.00	1	1	77	78	0.00	15.1	15.0	-0	1.211	1.211	1.209	1.203	1.156	0.009	0.010	0.016	0.055	0.032
20-SEP-94	13:40:24	500	PURGE	0.00	0.00	0.0	5	1.181	17	17	17	0.22	0.00	1	1	77	78	0.00	11.4	15.0	-0	1.216	1.212	1.211	1.209	1.158	0.011	0.009	0.013	0.045	0.024
20-SEP-94	13:41:24	500	PURGE	0.00	0.00	0.0	5	1.175	16	17	18	0.21	0.00	1	0	77	78	0.00	13.8	15.1	-0	1.214	1.217	1.210	1.206	1.153	0.009	0.010	0.016	0.044	0.021
20-SEP-94	13:42:24	500	PURGE	0.00	0.00	0.0	6	1.175	16	17	17	0.17	0.00	1	0	77	78	0.00	15.0	15.2	-0	1.217	1.215	1.214	1.206	1.161	0.005	0.011	0.015	0.046	0.012
20-SEP-94	13:43:24	500	PURGE	0.00	0.00	0.0	6	1.173	16	17	17	0.22	0.00	0	0	76	78	0.00	12.5	15.1	-0	1.217	1.220	1.211	1.214	1.151	0.007	0.012	0.009	0.045	0.027
20-SEP-94	13:44:24	500	PURGE	0.00	0.00	0.0	7	1.167	16	17	24	1.46	0.00	1	1	76	79	0.13	15.1	15.1	-0	1.214	1.209	1.209	1.200	1.150	0.009	0.007	0.017	0.046	0.029
20-SEP-94	13:45:24	500	PURGE	0.00	0.00	0.0	6	1.164	15	17	23	1.65	0.00	1	2	77	79	0.11	15.1	15.1	-0	1.216	1.216	1.218	1.205	1.156	0.002	0.011	0.005	0.040	0.043
20-SEP-94	13:46:24	500	PURGE	0.00	0.00	0.0	6	1.158	15	17	22	1.66	0.00	1	2	77	78	0.07	15.1	15.1	-0	1.210	1.216	1.215	1.211	1.154	0.007	0.006	0.010	0.044	0.021
20-SEP-94	13:47:24	500	PURGE	0.00	0.00	0.0	6	1.150	14	17	22	1.72	0.00	0	2	77	79	0.00	15.1	15.0	-0	1.212	1.217	1.211	1.206	1.156	0.005	0.007	0.010	0.046	0.029
20-SEP-94	13:48:24	500	PURGE	0.00	0.00	0.0	6	1.141	14	17	22	1.74	0.00	0	3	77	78	0.00	15.1	15.1	-0	1.215	1.214	1.209	1.210	1.154	0.005	0.005	0.007	0.045	0.024
20-SEP-94	13:49:24	500	PURGE	0.00	0.00	0.0	6	1.130	14	17	22	1.73	0.00	1	3	77	78	0.00	15.2	15.0	-0	1.216	1.206	1.209	1.203	1.153	0.009	0.009	0.011	0.040	0.031
20-SEP-94	13:50:24	500	PURGE	0.00	0.00	0.0	6	1.114	14	18	21	1.70	0.00	0	3	77	79	0.13	15.2	15.1	-0	1.210	1.212	1.215	1.209	1.161	0.009	0.006	0.010	0.046	0.032
20-SEP-94	13:51:24	500	PURGE	0.00	0.00	0.0	6	1.100	15	17	21	1.75	0.00	1	2	77	78	0.00	15.1	15.2	-0	1.210	1.216	1.212	1.210	1.156	0.007	0.006	0.011	0.042	0.017
20-SEP-94	13:52:24	500	PURGE	0.00	0.00	0.0	6	1.086	15	17	20	1.81	0.00	0	2	77	78	0.10	15.2	15.1	-0	1.216	1.215	1.216	1.205	1.161	0.004	0.006	0.009	0.048	0.035
20-SEP-94	13:53:24	500	PURGE	0.00	0.00	0.0	6	1.071	15	17	21	1.82	0.00	1	2	77	78	0.00	15.2	15.2	-0	1.212	1.217	1.208	1.200	1.151	0.006	0.011	0.011	0.035	0.016
20-SEP-94	13:54:24	500	PURGE	0.00	0.00	0.0	5	1.054	15	17	20	1.85	0.00	0	2	77	78	0.12	15.1	15.0	-0	1.214	1.210	1.208	1.205	1.145	0.004	0.009	0.009	0.046	0.021
20-SEP-94	13:55:24	500	PURGE	0.00	0.00	0.0	5	1.035	15	17	21	1.91	0.00	0	2	78	78	0.00	15.1	15.0	-0	1.206	1.214	1.205	1.206	1.135	0.004	0.007	0.009	0.043	0.035
20-SEP-94	13:56:24	500	PURGE	0.00	0.00	0.0	4	1.016	15	17	20	1.89	0.00	1	2	78	79	0.00	15.1	16.4	-0	1.220	1.208	1.205	1.210	1.150	0.007	0.010	0.012	0.037	0.013
20-SEP-94	13:57:23	500	PURGE	0.00	0.00	0.0	4	0.999	14	17	15	0.20	0.00	1	2	78	79	0.00	15.1	16.4	-0	1.200	1.219	1.216	1.204	1.155	0.006	0.009	0.011	0.040	0.010

20-SEP-94	13:58:24	500	PURGE	0.00	0.00	0.0	4	0.903	14	17	15	0.27	0.00	0	2	78	79	0.00	15.1	16.4	-0	1.215	1.197	1.200	1.201	1.142	0.007	0.006	0.015	0.044	0.021
20-SEP-94	13:59:23	500	PURGE	0.00	0.00	0.0	4	0.967	15	17	15	0.20	0.00	1	2	78	79	0.00	11.4	16.3	-0	1.219	1.214	1.210	1.200	1.151	0.005	0.009	0.007	0.040	0.022
20-SEP-94	14:00:24	500	PURGE	0.00	0.00	0.0	4	0.949	15	17	15	0.22	0.00	1	2	77	78	0.00	13.9	16.4	-0	1.214	1.215	1.216	1.212	1.155	0.011	0.007	0.007	0.037	0.004
20-SEP-94	14:01:24	500	PURGE	0.00	0.00	0.0	4	0.935	15	17	15	0.23	0.00	1	2	78	79	0.00	15.1	16.3	-0	1.214	1.214	1.217	1.204	1.155	0.004	0.010	0.010	0.043	0.021
20-SEP-94	14:02:24	500	PURGE	0.00	0.00	0.0	4	0.919	15	18	16	0.25	0.00	0	2	78	79	0.00	12.6	16.4	-0	1.200	1.220	1.214	1.212	1.155	0.009	0.004	0.014	0.051	0.005
20-SEP-94	14:03:24	500	PURGE	0.00	0.00	0.0	4	0.902	15	17	16	0.26	0.00	1	2	78	79	0.00	14.0	16.4	-0	1.214	1.210	1.217	1.205	1.159	0.005	0.007	0.009	0.046	0.020
20-SEP-94	14:04:24	500	PURGE	0.00	0.00	0.0	4	0.885	15	17	16	0.20	0.00	0	2	78	79	0.00	15.1	16.3	-0	1.216	1.211	1.215	1.212	1.154	0.004	0.006	0.010	0.045	0.010
20-SEP-94	14:05:24	500	PURGE	0.00	0.00	0.0	6	0.871	15	17	17	0.18	0.00	1	2	78	78	0.00	12.5	16.4	-0	1.214	1.215	1.213	1.211	1.154	0.006	0.009	0.004	0.044	0.007
20-SEP-94	14:06:23	500	PURGE	0.00	0.00	0.0	6	0.857	15	18	17	0.20	0.00	1	2	78	79	0.00	15.0	16.4	-0	1.217	1.215	1.210	1.209	1.154	0.010	0.010	0.007	0.040	0.017
20-SEP-94	14:07:24	500	PURGE	0.00	0.00	0.0	7	0.840	15	17	17	0.23	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.212	1.217	1.215	1.212	1.155	0.010	0.005	0.009	0.030	0.020
20-SEP-94	14:08:24	500	PURGE	0.00	0.00	0.0	7	0.828	15	17	17	0.25	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.217	1.219	1.210	1.211	1.150	0.009	0.010	0.009	0.046	0.016
20-SEP-94	14:09:24	500	PURGE	0.00	0.00	0.0	7	0.814	15	17	16	0.29	0.00	1	2	78	79	0.00	13.0	16.4	-0	1.214	1.212	1.209	1.209	1.155	0.004	0.007	0.006	0.043	0.026
20-SEP-94	14:10:24	500	OFF	0.00	0.00	0.0	6	0.800	15	17	15	0.29	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.211	1.207	1.210	1.204	1.156	0.003	0.006	0.006	0.040	0.014
20-SEP-94	14:11:24	500	PURGE	0.00	0.00	0.0	6	0.792	15	17	17	0.26	0.00	1	2	78	79	0.00	15.2	16.3	-0	1.210	1.216	1.215	1.209	1.155	0.005	0.006	0.007	0.016	0.022
20-SEP-94	14:12:23	500	PURGE	0.00	0.00	0.0	7	0.778	14	17	17	0.24	0.00	1	2	78	79	0.00	14.0	16.5	-0	1.209	1.211	1.211	1.203	1.154	0.004	0.004	0.004	0.046	0.025
20-SEP-94	14:13:23	500	PURGE	0.00	0.00	0.0	7	0.760	15	17	17	0.21	0.00	1	2	78	79	0.00	14.0	16.4	-0	1.215	1.209	1.204	1.209	1.156	0.006	0.007	0.004	0.046	0.023
20-SEP-94	14:14:23	500	PURGE	0.00	0.00	0.0	7	0.757	15	18	17	0.26	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.210	1.211	1.212	1.204	1.150	0.009	0.010	0.010	0.045	0.011
20-SEP-94	14:15:23	500	PURGE	0.00	0.00	0.0	7	0.751	14	17	16	0.25	0.00	1	2	78	79	0.00	13.8	16.4	-0	1.214	1.211	1.209	1.212	1.147	0.007	0.009	0.007	0.044	0.012
20-SEP-94	14:16:24	500	PURGE	0.00	0.00	0.0	6	0.741	15	17	16	0.20	0.00	1	2	78	79	0.00	12.6	16.3	-0	1.215	1.209	1.208	1.206	1.153	0.004	0.007	0.006	0.049	0.024
20-SEP-94	14:17:23	500	PURGE	0.00	0.00	0.0	6	0.734	15	18	17	0.19	0.00	1	2	78	79	0.00	15.1	16.4	-0	1.212	1.217	1.211	1.209	1.150	0.007	0.006	0.005	0.049	0.020
20-SEP-94	14:18:23	500	PURGE	0.00	0.00	0.0	7	0.729	15	18	17	0.22	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.212	1.216	1.209	1.209	1.151	0.007	0.005	0.009	0.042	0.010
20-SEP-94	14:19:23	500	PURGE	0.00	0.00	0.0	7	0.725	15	17	17	0.27	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.215	1.211	1.214	1.204	1.161	0.009	0.009	0.010	0.042	0.007
20-SEP-94	14:20:23	500	PURGE	0.00	0.00	0.0	7	0.715	15	17	17	0.23	0.00	1	2	78	[illegible]	0.30	13.9	16.4	-9	1.214	1.217	1.212	1.209	1.159	0.999	0.097	0.096	0.944	0.027

20-SEP-94 14:23:23 500 PURGE	0.00	0.00	0.0	7	0.496	15	17	17	0.20	0.00	1	2	78	79	0.00	12.5	16.4	-0	1.215	1.215	1.212	1.205	1.154	0.007	0.007	0.007	0.045	0.026
20-SEP-94 14:24:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	18	0.22	0.00	1	2	78	79	0.00	12.4	16.4	-0	1.189	1.177	1.181	1.182	1.107	0.004	0.004	0.002	0.037	0.015
20-SEP-94 14:25:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	18	0.18	0.00	1	2	78	79	0.00	15.1	16.4	-0	1.159	1.140	1.132	1.127	1.030	0.004	0.005	0.005	0.034	0.016
20-SEP-94 14:26:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	18	0.16	0.00	1	2	78	79	0.00	12.6	16.4	-0	1.131	1.126	1.092	1.094	0.979	0.005	0.006	0.005	0.037	0.009
20-SEP-94 14:27:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	18	0.15	0.00	1	2	78	79	0.00	13.9	16.4	-0	1.106	1.098	1.059	1.054	0.917	0.004	0.005	0.006	0.031	0.007
20-SEP-94 14:28:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	18	0.19	0.00	1	2	78	79	0.00	10.7	16.4	-0	1.090	1.081	1.039	1.032	0.857	0.002	0.005	0.005	0.043	0.029
20-SEP-94 14:29:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	24	1.08	0.00	1	2	78	79	0.00	11.4	16.4	-0	1.074	1.066	1.018	1.028	0.778	0.004	0.005	0.006	0.035	0.009
20-SEP-94 14:30:23 500 OFF	0.00	0.00	0.0	7	0.000	16	17	32	1.40	0.00	1	1	80	80	0.10	12.5	16.3	-0	1.056	1.057	1.002	0.999	0.718	0.002	0.004	0.001	0.039	0.017
20-SEP-94 14:31:23 500 PURGE	0.00	0.00	0.0	7	0.435	15	17	24	0.12	0.00	1	1	79	80	0.00	11.3	16.4	-0	1.211	1.208	1.203	1.199	1.149	0.006	0.010	0.012	0.042	0.035
20-SEP-94 14:32:23 500 PURGE	0.00	0.00	0.0	7	0.424	15	17	24	0.12	0.00	1	1	79	79	0.00	15.1	16.4	-0	1.215	1.208	1.206	1.206	1.151	0.009	0.006	0.010	0.045	0.023
20-SEP-94 14:33:23 500 PURGE	0.00	0.00	0.0	7	0.418	15	17	24	0.09	0.00	1	1	79	80	0.00	12.5	16.4	-0	1.218	1.214	1.209	1.210	1.160	0.005	0.004	0.010	0.044	0.015
20-SEP-94 14:34:23 500 PURGE	0.00	0.00	0.0	7	0.408	15	17	24	0.15	0.00	1	1	79	79	0.00	11.3	16.3	-0	1.208	1.214	1.212	1.208	1.153	0.004	0.005	0.006	0.044	0.015
20-SEP-94 14:35:23 500 PURGE	0.00	0.00	0.0	7	0.400	15	17	25	0.08	0.00	1	1	79	80	0.00	15.1	16.4	-0	1.215	1.212	1.211	1.209	1.147	0.005	0.009	0.004	0.043	0.009
20-SEP-94 14:36:23 500 PURGE	0.00	0.00	0.0	7	0.396	15	17	24	0.12	0.00	1	1	78	79	0.00	12.7	16.4	-0	1.216	1.214	1.211	1.209	1.155	0.004	0.004	0.005	0.043	0.009
20-SEP-94 14:37:23 500 PURGE	0.00	0.00	0.0	7	0.390	15	17	24	0.10	0.00	1	2	78	80	0.00	11.4	16.4	-0	1.214	1.210	1.212	1.209	1.155	0.007	0.009	0.006	0.043	0.017
20-SEP-94 14:38:23 500 PURGE	0.00	0.00	0.0	7	0.383	15	17	24	0.12	0.00	1	1	78	80	0.00	15.0	16.3	-0	1.205	1.209	1.211	1.208	1.156	0.004	0.009	0.006	0.038	0.016
20-SEP-94 14:39:23 500 PURGE	0.00	0.00	0.0	7	0.381	15	17	25	0.11	0.00	1	2	79	80	0.00	12.5	16.4	-0	1.206	1.206	1.211	1.208	1.155	0.002	0.006	0.007	0.040	0.017
20-SEP-94 14:40:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	24	0.15	0.00	1	1	79	80	0.00	11.4	16.4	-0	1.206	1.205	1.204	1.193	1.131	0.004	0.004	0.004	0.031	0.023
20-SEP-94 14:41:23 500 OFF	0.00	0.00	0.0	7	0.000	16	17	27	1.53	0.00	1	1	79	80	0.00	11.4	16.4	-0	1.171	1.166	1.143	1.136	1.041	0.004	0.005	0.002	0.046	0.013
20-SEP-94 14:42:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	23	1.57	0.00	1	2	79	80	0.18	11.4	16.3	-0	1.136	1.134	1.089	1.100	0.991	0.007	0.005	0.004	0.042	0.016
20-SEP-94 14:43:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	23	1.66	0.00	1	2	79	80	0.00	11.4	16.3	-0	1.105	1.096	1.059	1.051	0.928	0.002	0.004	0.004	0.039	0.018
20-SEP-94 14:44:23 500 OFF	0.00	0.00	0.0	7	0.000	14	18	23	1.63	0.00	1	3	79	80	0.07	11.3	16.4	-0	1.079	1.087	1.038	1.028	0.852	0.004	0.006	0.004	0.039	0.015
20-SEP-94 14:45:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	23	1.66	0.00	1	2	79	80	0.00	11.3	16.4	-0	1.056	1.063	1.015	1.012	0.779	0.002	0.005	0.004	0.040	0.009
20-SEP-94 14:46:23 500 OFF	0.00	0.00	0.0	7	0.000	15	17	22	1.62	0.00	1	2	80	80	0.14	11.3	16.4	-0	1.031	1.044	0.987	0.989	0.702	0.005	0.004	0.005	0.042	0.011
20-SEP-94 14:47:23 500 OFF	0.00	0.00	0.0	6	0.000	14	17	17	0.66	0.00	1	2	79	80	0.00	11.4	16.4	-0	1.028	1.027	0.978	0.973	0.608	0.004	0.005	0.004	0.040	0.011
20-SEP-94 14:48:23 500 PURGE	0.00	0.00	0.0	6	0.500	14	18	16	0.23	0.00	1	2	79	81	0.00	11.2	13.8	-0	1.205	1.209	1.205	1.199	1.144	0.011	0.013	0.010	0.053	0.066
20-SEP-94 14:49:23 500 PURGE	0.00	0.00	0.0	7	0.501	14	17	23	1.69	0.00	1	2	80	81	0.17	13.9	12.6	-0	1.218	1.214	1.215	1.201	1.148	0.005	0.011	0.012	0.051	0.020
20-SEP-94 14:50:23 500 PURGE	0.00	0.00	0.0	6	0.497	15	17	22	1.72	0.00	1	2	79	81	0.09	14.0	12.4	-0	1.199	1.195	1.197	1.183	1.134	0.006	0.007	0.005	0.043	0.033
20-SEP-94 14:51:23 500 PURGE	0.00	0.00	0.0	6	0.489	14	18	22	1.69	0.00	1	2	80	80	0.00	13.9	12.5	-0	1.187	1.193	1.194	1.190	1.108	0.007	0.005	0.007	0.044	0.017
20-SEP-94 14:52:23 500 PURGE	0.00	0.00	0.0	6	0.484	14	17	22	1.75	0.00	1	2	80	80	0.02	13.8	12.6	-0	1.194	1.194	1.194	1.186	1.150	0.007	0.007	0.010	0.043	0.020
20-SEP-94 14:53:22 500 PURGE	0.00	0.00	0.0	6	0.475	15	17	22	1.70	0.00	1	2	80	80	0.00	14.0	12.5	-0	1.192	1.192	1.193	1.194	1.155	0.004	0.007	0.006	0.046	0.012
20-SEP-94 14:54:22 500 PURGE	0.00	0.00	0.0	6	0.469	14	17	21	1.77	0.00	1	2	80	80	0.14	13.9	12.4	-0	1.199	1.192	1.192	1.192	1.154	0.006	0.006	0.005	0.049	0.021
20-SEP-94 14:55:23 500 PURGE	0.00	0.00	0.0	6	0.465	15	17	21	1.75	0.00	1	2	80	81	0.00	13.9	12.6	-0	1.197	1.197	1.197	1.188	1.153	0.005	0.006	0.006	0.043	0.042
20-SEP-94 14:56:22 500 PURGE	0.00	0.00	0.0	6	0.460	13	17	19	0.34	0.00	1	3	80	81	0.07	13.9	12.6	-0	1.194	1.198	1.193	1.181	1.155	0.007	0.009	0.009	0.038	0.023
20-SEP-94 14:57:22 500 PURGE	0.00	0.00	0.0	6	0.454	14	18	19	0.31	0.00	1	3	80	81	0.11	13.9	12.6	-0	1.193	1.199	1.192	1.189	1.154	0.005	0.006	0.004	0.042	0.017
20-SEP-94 14:58:23 500 PURGE	0.00	0.00	0.0	6	0.447	14	17	15	0.29	0.00	1	3	80	81	0.00	12.6	12.6	-0	1.187	1.190	1.192	1.190	1.151	0.005	0.009	0.009	0.045	0.022
20-SEP-94 14:59:23 500 PURGE	0.00	0.00	0.0	6	0.445	14	17	15	0.29	0.00	1	2	80	81	0.00	15.2	12.6	-0	1.193	1.195	1.193	1.187	1.154	0.007	0.006	0.010	0.049	0.020
20-SEP-94 15:00:23 500 PURGE	0.00	0.00	0.0	6	0.442	14	17	16	0.30	0.00	1	2	80	81	0.00	10.0	12.5	-0	1.188	1.194	1.190	1.179	1.156	0.005	0.007	0.006	0.046	0.015
20-SEP-94 15:01:22 500 PURGE	0.00	0.00	0.0	6	0.439	14	17	16	0.27	0.00	1	2	80	81	0.00	12.6	12.6	-0	1.195	1.195	1.195	1.188	1.153	0.005	0.006	0.006	0.048	0.021
20-SEP-94 15:02:22 500 PURGE	0.00	0.00	0.0	6	0.436	15	18	17	0.25	0.00	1	2	80	81	0.00	15.1	12.6	-1	1.192	1.193	1.197	1.188	1.154	0.006	0.007	0.006	0.043	0.020
20-SEP-94 15:03:22 500 PURGE	0.00	0.00	0.0	6	0.434	15	17	17	0.24	0.00	1	2	80	81	0.00	12.6	12.5	-0	1.193	1.190	1.192	1.189	1.153	0.005	0.006	0.007	0.046	0.026
20-SEP-94 15:04:22 500 PURGE	0.00	0.00	0.0	7	0.431	15	17	23	1.59	0.00	1	1	80	81	0.05	15.0	12.6	-0	1.194	1.192	1.190	1.184	1.155	0.004	0.004	0.004	0.043	0.024
20-SEP-94 15:05:22 500 PURGE	0.00	0.00	0.0	6	0.430	15	17	23	1.69	0.00	0	2	80	81	0.00	15.1	12.6	-0	1.194	1.197	1.190	1.184	1.153	0.002	0.005	0.011	0.035	0.044
20-SEP-94 15:06:22 500 PURGE	0.00	0.00	0.0	6	0.425	15	17	22	1.64	0.00	1	2	80	81	0.10	15.1	12.6	-0	1.193	1.187	1.190	1.187	1.147	0.007	0.007	0.005	0.042	0.021
20-SEP-94 15:07:22 500 PURGE	0.00	0.00	0.0	6	0.422	15	17	22	1.66	0.00	1	2	80	80	0.00	15.1	12.6	-0	1.190	1.197	1.197	1.182	1.150	0.006	0.007	0.006	0.045	0.012
20-SEP-94 15:08:22 500 PURGE	0.00	0.00	0.0	6	0.413	15	17	22	1.66	0.00	1	2	80	80	0.00	15.1	12.6	-0	1.187	1.186	1.194	1.183	1.155	0.005	0.004	0.005	0.048	0.020
20-SEP-94 15:09:22 500 PURGE	0.00	0.00	0.0	6	0.408	14	17	21	1.66	0.00	0	2	81	81	0.13	15.1	12.5	-1	1.194	1.200	1.189	1.180	1.154	0.005	0.009	0.009	0.048	0.049
20-SEP-94 15:10:22 500 PURGE	0.00	0.00	0.0	6	0.403	14	17	21	1.68	0.00	1	2	80	80	0.09	15.1	12.6	-0	1.190	1.203	1.187	1.178	1.149	0.005	0.006	0.002	0.048	0.030
20-SEP-94 15:11:22 500 PURGE	0.00	0.00	0.0	6	0.398	14	17	21	1.68	0.00	1	2	80	81	0.07	15.2	12.6	-0	1.193	1.195	1.189	1.182	1.149	0.006	0.006	0.010	0.044	0.006
20-SEP-94 15:12:22 500 PURGE	0.00	0.00	0.0	6	0.393	14	17	21	1.63	0.00	1	3	81	81	0.03	15.1	12.6	-0	1.189	1.197	1.195	1.190	1.155	0.009	0.005	0.007	0.045	0.016
20-SEP-94 15:13:22 500 PURGE	0.00	0.00	0.0	6	0.390	14	17	20	1.72	0.00	1	2	80	81	0.05	15.2	12.6	-0	1.197	1.199	1.195	1.183	1.154	0.006	0.006	0.007	0.044	0.006
20-SEP-94 15:14:22 500 PURGE	0.00	0.00	0.0	6	0.383	14	17	20	1.68	0.00	1	3	81	81	0.00	15.1	12.6	-0	1.195	1.193	1.192	1.184	1.156	0.005	0.006	0.007	0.040	0.007
20-SEP-94 15:15:22 500 PURGE	0.00	0.00	0.0	6	0.380	14	17	20	1.69	0.00	1	3	81	81	0.11	15.1	12.5	-0	1.194	1.197	1.193	1.186	1.149	0.005	0.005	0.006	0.038	0.029
20-SEP-94 15:16:22 500 PURGE	0.00	0.00	0.0	5	0.375	14	17	19	1.69	0.00	1	3	81	80	0.10	15.2	12.7	-0	1.190	1.193	1.195	1.182	1.150	0.010	0.007	0.004	0.050	0.028
20-SEP-94 15:17:22 500 PURGE	0.00	0.00	0.0	5	0.371	14	17	20	1.69	0.00	1	3	81	81	0.00	15.1	12.6	-0	1.193	1.192	1.193	1.183	1.154	0.007	0.006	0.011	0.046	0.010
20-SEP-94 15:18:22 500 PURGE	0.00	0.00	0.0	4	0.370	15	17	19	1.72	0.00	1	2	81	81	0.17	13.0	13.9	-0	1.187	1.197	1.190	1.182	1.150	0.005	0.010	0.010	0.037	0.034
20-SEP-94 15:19:22 500 PURGE	0.00	0.00	0.0	4	0.365	14	17	19	1.70	0.00	1	2	81	81	0.00	14.0	13.9	-0	1.194	1.197	1.194	1.181	1.154	0.005	0.006	0.011	0.044	0.010
20-SEP-94 15:20:22 500 PURGE	0.00	0.00	0.0	3	0.361	14	17	19	1.76	0.00	1	2	81	81	0.16	13.9	14.0	-0	1.193	1.197	1.189	1.193	1.145	0.005	0.006	0.005	0.045	0.011

DATE: 20-SEP-94 LFSPE OXYGEN GENERATION TIME: 15:20:42
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 0.0 HOURS LAST ADS LEVEL: 3

V00?-? VENT	LEV606-? OFF	... PSIA
V003-2 VENT	LEV606-3 ON	P706-3 19 PSIA
V031-1 CLOSED	LEV606-4 OFF	DP709 1.75 PSID
V031-2 CLOSED	LEV606-5 OFF	DP708 0.00 PSID
V053 OPEN	LEV606-6 OFF	DP749-1 1 PSID
V081-1 CLOSED	LEV606-7 OFF	DP749-2 3 PSID
V081-2 CLOSED	PUR705 OFF	T762-1 81 F
V081-3 CLOSED		T762-2 81 F
V081-4 CLOSED	CALC745 0.15 GPH	T734-1 81 F
FAN422 OFF	LEV605-1 13.9 CU IN	T734-2 82 F
PMP463 ON	LEV605-2 13.8 CU IN	P713 5 PSIG
PMP460 OFF		

TOO SOON IN PURGE STATE (SEE CNTRL-2 FROM SRS REV. F)

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT

PAGE 1 OF 2

20-SEP-94 15:21:22 500 PURGE	0.00	0.00	0.0	3	0.353	14	17	19	1.74	0.00	1	2	01	01	0.12	13.9	13.7	-0	1.188	1.192	1.197	1.190	1.150	0.005	0.007	0.007	0.046	0.016
20-SEP-94 15:22:22 500 PURGE	0.00	0.00	0.0	3	0.353	15	17	19	1.70	0.00	1	3	01	01	0.00	13.9	13.9	-0	1.189	1.199	1.194	1.189	1.151	0.005	0.007	0.009	0.046	0.012
20-SEP-94 15:23:22 500 PURGE	0.00	0.00	0.0	3	0.350	16	17	19	1.75	0.00	1	3	01	01	0.15	13.9	13.8	-0	1.200	1.194	1.192	1.186	1.150	0.006	0.006	0.005	0.049	0.033
20-SEP-94 15:24:22 500 PURGE	0.00	0.00	0.0	3	0.345	16	17	20	1.72	0.00	1	2	01	01	0.07	13.9	13.9	-0	1.193	1.192	1.195	1.189	1.155	0.004	0.006	0.010	0.050	0.022
20-SEP-94 15:25:22 500 PURGE	0.00	0.00	0.0	3	0.342	14	17	19	1.73	0.00	1	3	01	01	0.12	13.9	13.9	-0	1.190	1.190	1.193	1.192	1.151	0.002	0.005	0.005	0.040	0.024
20-SEP-94 15:26:22 500 PURGE	0.00	0.00	0.0	3	0.340	14	17	19	1.69	0.00	1	3	01	01	0.16	13.9	13.9	-0	1.194	1.194	1.195	1.184	1.150	0.006	0.004	0.010	0.039	0.021
20-SEP-94 15:27:22 500 PURGE	0.00	0.00	0.0	3	0.335	14	17	19	1.73	0.00	1	3	01	01	0.19	13.9	13.8	-0	1.192	1.203	1.197	1.188	1.150	0.006	0.006	0.007	0.045	0.017
20-SEP-94 15:28:22 500 PURGE	0.00	0.00	0.0	3	0.331	13	17	14	0.67	0.00	1	4	01	01	0.20	13.9	13.9	-0	1.190	1.186	1.188	1.183	1.154	0.005	0.002	0.005	0.043	0.010
20-SEP-94 15:29:22 500 PURGE	0.00	0.00	0.0	4	0.327	13	17	14	0.30	0.00	1	4	01	01	0.16	15.1	13.9	-0	1.190	1.197	1.194	1.184	1.153	0.004	0.006	0.009	0.042	0.016
20-SEP-94 15:30:22 500 PURGE	0.00	0.00	0.0	5	0.326	14	17	14	0.36	0.00	1	3	01	01	0.00	11.3	13.9	-1	1.193	1.192	1.188	1.187	1.154	0.007	0.006	0.039	0.045	0.016
20-SEP-94 15:31:22 500 PURGE	0.00	0.00	0.0	5	0.325	14	17	15	0.22	0.00	1	3	01	01	0.00	12.5	13.9	-0	1.198	1.201	1.190	1.186	1.165	0.007	0.007	0.012	0.046	0.020
20-SEP-94 15:32:21 500 PURGE	0.00	0.00	0.0	5	0.321	14	17	15	0.25	0.00	1	3	01	01	0.00	15.1	13.9	-1	1.197	1.195	1.196	1.186	1.153	0.002	0.009	0.007	0.042	0.006
20-SEP-94 15:33:22 500 PURGE	0.00	0.00	0.0	5	0.322	14	17	15	0.23	0.00	1	3	01	01	0.00	10.2	13.9	-0	1.190	1.195	1.154	1.190	1.147	0.007	0.007	0.007	0.053	0.028
20-SEP-94 15:34:22 500 PURGE	0.00	0.00	0.0	5	0.319	14	17	15	0.25	0.00	1	2	01	01	0.00	12.6	13.9	-0	1.195	1.194	1.194	1.188	1.149	0.006	0.007	0.006	0.054	0.009
20-SEP-94 15:35:22 500 PURGE	0.00	0.00	0.0	5	0.316	14	17	16	0.22	0.00	1	3	01	01	0.00	15.1	13.9	-0	1.198	1.200	1.190	1.186	1.153	0.004	0.006	0.004	0.043	0.010
20-SEP-94 15:36:22 500 PURGE	0.00	0.00	0.0	5	0.315	15	17	16	0.25	0.00	1	2	01	01	0.00	11.9	13.9	-1	1.193	1.189	1.189	1.188	1.154	0.006	0.005	0.005	0.056	0.043
20-SEP-94 15:37:22 500 PURGE	0.00	0.00	0.0	6	0.315	15	17	17	0.22	0.00	1	2	01	01	0.00	12.6	14.0	-1	1.195	1.194	1.193	1.183	1.151	0.007	0.006	0.010	0.049	0.021
20-SEP-94 15:38:22 500 PURGE	0.00	0.00	0.0	6	0.313	14	17	17	0.22	0.00	1	2	01	01	0.00	15.1	13.9	-0	1.192	1.192	1.193	1.195	1.155	0.007	0.009	0.009	0.049	0.009
20-SEP-94 15:39:21 500 PURGE	0.00	0.00	0.0	7	0.311	15	17	21	1.56	0.00	1	2	01	01	0.10	13.9	13.9	-0	1.192	1.192	1.189	1.187	1.154	0.004	0.005	0.005	0.049	0.027
20-SEP-94 15:40:22 500 PURGE	0.00	0.00	0.0	6	0.311	16	17	23	1.56	0.00	1	2	01	01	0.00	13.9	13.9	-0	1.194	1.193	1.188	1.187	1.155	0.005	0.004	0.005	0.037	0.015
20-SEP-94 15:41:22 500 PURGE	0.00	0.00	0.0	6	0.309	15	18	22	1.51	0.00	1	2	01	02	0.13	13.9	13.9	-0	1.198	1.197	1.189	1.189	1.151	0.006	0.006	0.007	0.043	0.035
20-SEP-94 15:42:22 500 PURGE	0.00	0.00	0.0	6	0.300	15	17	22	1.56	0.00	1	2	02	01	0.15	13.9	13.8	-0	1.193	1.194	1.195	1.178	1.145	0.006	0.007	0.007	0.049	0.020
20-SEP-94 15:43:21 500 PURGE	0.00	0.00	0.0	6	0.305	14	17	21	1.53	0.00	1	2	01	01	0.17	13.9	13.9	-0	1.190	1.195	1.189	1.188	1.151	0.007	0.006	0.009	0.030	0.017
20-SEP-94 15:44:22 500 PURGE	0.00	0.00	0.0	6	0.298	14	17	21	1.56	0.00	1	2	01	02	0.00	13.9	13.9	-0	1.195	1.192	1.199	1.189	1.151	0.007	0.002	0.005	0.044	0.013
20-SEP-94 15:45:21 500 PURGE	0.00	0.00	0.0	6	0.297	15	17	21	1.61	0.00	1	2	02	02	0.03	14.0	13.8	-1	1.189	1.190	1.194	1.190	1.154	0.001	0.002	0.005	0.045	0.021
20-SEP-94 15:46:21 500 PURGE	0.00	0.00	0.0	6	0.297	14	17	21	1.57	0.00	1	2	02	01	0.12	13.8	13.9	-0	1.189	1.192	1.195	1.179	1.150	0.002	0.005	0.006	0.043	0.027
20-SEP-94 15:47:22 500 PURGE	0.00	0.00	0.0	6	0.294	15	17	21	1.62	0.00	1	2	01	01	0.13	13.9	14.0	-1	1.190	1.193	1.190	1.187	1.144	0.006	0.005	0.007	0.040	0.010
20-SEP-94 15:48:21 500 PURGE	0.00	0.00	0.0	6	0.292	15	17	20	1.72	0.00	1	2	02	02	0.14	13.8	13.9	-1	1.192	1.200	1.195	1.182	1.147	0.004	0.005	0.007	0.038	0.016
20-SEP-94 15:49:21 500 PURGE	0.00	0.00	0.0	6	0.289	15	17	20	1.69	0.00	1	2	02	01	0.10	13.9	13.9	-0	1.197	1.190	1.193	1.184	1.150	0.006	0.006	0.005	0.042	0.027
20-SEP-94 15:50:21 500 PURGE	0.00	0.00	0.0	5	0.287	15	17	19	1.67	0.00	1	2	02	01	0.15	13.9	13.9	-1	1.190	1.193	1.195	1.187	1.156	0.004	0.005	0.004	0.043	0.010
20-SEP-94 15:51:21 500 PURGE	0.00	0.00	0.0	5	0.285	15	17	19	1.69	0.00	1	2	02	01	0.00	13.8	13.8	-0	1.188	1.189	1.199	1.190	1.153	0.006	0.011	0.010	0.045	0.017
20-SEP-94 15:52:21 500 PURGE	0.00	0.00	0.0	4	0.281	15	17	19	1.69	0.00	1	2	02	01	0.10	12.7	15.1	-0	1.188	1.188	1.192	1.182	1.150	0.004	0.011	0.010	0.044	0.023
20-SEP-94 15:53:21 500 PURGE	0.00	0.00	0.0	4	0.279	15	21	19	1.65	0.00	4	4	02	01	0.00	12.6	15.1	-0	1.193	1.195	1.200	1.196	1.150	0.007	0.006	0.011	0.044	0.012
20-SEP-94 15:54:21 500 PURGE	0.00	0.00	0.0	3	0.279	15	21	19	1.73	0.00	4	4	02	01	0.11	12.5	15.2	-0	1.194	1.206	1.192	1.183	1.147	0.005	0.007	0.006	0.045	0.002
20-SEP-94 15:55:21 500 PURGE	0.00	0.00	0.0	3	0.278	14	20	20	1.72	0.00	11	12	02	01	0.00	12.6	15.1	-0	1.190	1.193	1.199	1.188	1.154	0.006	0.006	0.006	0.039	0.049
20-SEP-94 15:56:21 500 PURGE	0.00	0.00	0.0	3	0.277	15	39	20	1.74	0.00	22	23	02	02	0.00	12.6	15.1	-0	1.197	1.188	1.199	1.180	1.154	0.006	0.004	0.005	0.045	0.010
20-SEP-94 15:57:21 500 PURGE	0.00	0.00	0.0	3	0.274	15	49	19	1.64	0.00	32	33	02	02	0.07	12.6	15.2	-0	1.201	1.194	1.193	1.184	1.150	0.004	0.007	0.006	0.046	0.023
20-SEP-94 15:58:21 500 PROCESS-VENT	1.05	0.50	0.0	4	1.654	19	58	25	1.01	1.01	39	38	02	02	0.29	12.6	15.2	23	1.217	1.209	1.211	1.200	1.137	0.007	0.006	0.006	0.030	0.045

DRAINED WATER FROM P706-3, T762-1,-2 HOUSING

DATE: 20-SEP-94 LFSPE OXYGEN GENERATION TIME: 15:58:30
MODE: ON STATE: PROCESS-VENT STATUS: NORMAL

OXYGEN PRODUCTION RATE: 5.40 LB/DAY HYDROGEN PRODUCTION RATE: 0.70 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 606 LEVEL: 4
CG746-1 -2 % LEL H2V760-1 1.213 V VLT906-1 1.691 V
CG746-2 -0 % LEL H2V760-2 1.216 V VLT906-2 1.670 V

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C6746-4   -1  % LEL        H2V760-4 1.[illegible] V       VLT906-4  1.[illegible]  V
C5755    0.0 UMHO/CM       H2V900   1.143 V       VLT906-5  1.674  V
I746      29  AMPS         H2PAVG   1.199 V       VLT906-6  1.685  V
                                                  VLT906-7  1.690  V
                           I760-1 0.005 A         VLT906-8  1.692  V
                           I760-2 0.006 A         VLT906-9  1.687  V
                           I760-3 0.012 A         VLT906-10 1.683  V
                           I760-4 0.039 A         VLT906-11 1.705  V
                           I900   0.037 A         VLT906-12 1.730  V
                                                  CELLAVG   1.670  V

ANOMALY:
ADVICE:

[F1] PAGE            [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE    [F10] MODIFY OPER
[F2] SUBSYSTEM PARA  [F5] MANUAL OPER    [F8] DATA LOGGING
[F3] MODE SELECTION  [F6] VIEW OPER      [F9] EXIT                PAGE 2  OF 2
20-SEP-94 15:59:21 500 PROCESS-VENT   0.42  1.07  0.0   4  1.780  32  40  30  1.03 2.02 48  35  85  81  0.31 12.6 15.1 45 1.216 1.210 1.211 1.209 1.116 0.002 0.012 0.006 0.040 0.104
20-SEP-94 16:00:21 500 PROCESS-VENT  11.43  1.43  0.0   3  1.980  53  70  50  1.02 2.00 56  24  88  82  0.34 12.6 15.1 60 1.216 1.209 1.219 1.203 1.126 0.009 0.016 0.013 0.039 0.090

DATE: 20-SEP-94          LFSPE OXYGEN GENERATION       TIME: 16:00:49
MODE: ON                 STATE: PROCESS-VENT         STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.43 LB/DAY    HYDROGEN PRODUCTION RATE: 1.42 LB/DAY
OPERATING TIME:       0.0 HOURS         LAST 606 LEVEL:  3
     C6746-1   -2  % LEL        H2V760-1 1.216 V       VLT906-1  1.934  V
     C6746-2   -0  % LEL        H2V760-2 1.211 V       VLT906-2  1.916  V
     C6746-3   -0  % LEL        H2V760-3 1.206 V       VLT906-3  1.944  V
     C6746-4   -1  % LEL        H2V760-4 1.210 V       VLT906-4  1.912  V
     C5755    0.0 UMHO/CM       H2V900   1.149 V       VLT906-5  1.882  V
     I746      60  AMPS         H2PAVG   1.199 V       VLT906-6  1.951  V
                                                       VLT906-7  2.057  V
                                I760-1 0.046 A         VLT906-8  2.048  V
                                I760-2 0.011 A         VLT906-9  2.030  V
                                I760-3 0.011 A         VLT906-10 1.989  V
                                I760-4 0.050 A         VLT906-11 2.234  V
                                I900   0.015 A         VLT906-12 2.010  V
                                                       CELLAVG   1.993  V

ANOMALY:
ADVICE:

[F1] PAGE            [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE    [F10] MODIFY OPER
[F2] SUBSYSTEM PARA  [F5] MANUAL OPER    [F8] DATA LOGGING
[F3] MODE SELECTION  [F6] VIEW OPER      [F9] EXIT                PAGE 2  OF 2
20-SEP-94 16:01:21 500 PROCESS-VENT  11.47  1.43  0.0   2  1.996  69  88  73  1.01 2.66 59  18  91  81  0.33 12.5 15.2 60 1.220 1.211 1.208 1.208 1.145 0.009 0.016 0.015 0.049 0.043
20-SEP-94 16:02:21 500 PROCESS-VENT  11.44  1.43  0.0   2  1.991  78  98  83  1.04 2.42 63  18  93  82  0.33 11.3 15.1 60 1.215 1.208 1.204 1.206 1.140 0.010 0.015 0.015 0.057 0.026
20-SEP-94 16:03:21 500 PROCESS-VENT  11.45  1.43  0.0   3  1.985  86 107  91  1.05 3.23 62  19  95  81  0.30 12.6 11.3 60 1.205 1.204 1.205 1.204 1.137 0.034 0.033 0.017 0.076 0.044
20-SEP-94 16:04:21 500 PROCESS-VENT  11.37  1.42  0.0   3  1.978  93 115  98  1.91 4.78 61  20  97  81  0.37 15.1 11.3 60 1.193 1.197 1.198 1.187 1.142 0.031 0.031 0.022 0.080 0.049
20-SEP-94 16:05:21 500 PROCESS-VENT  11.45  1.43  0.0   4  1.969 101 123 106  1.90 6.97 65  20  98  82  0.34 13.9 12.6 60 1.188 1.184 1.192 1.186 1.133 0.050 0.040 0.033 0.079 0.038
20-SEP-94 16:06:21 500 PROCESS-VENT  11.42  1.42  0.0   3  1.961 109 131 114  1.88 7.49 66  20 100  82  0.31 13.9 14.0 60 1.182 1.184 1.189 1.178 1.131 0.053 0.054 0.039 0.100 0.098
20-SEP-94 16:07:21 500 PROCESS-VENT  11.38  1.42  0.0   3  1.951 116 139 121  1.85 8.58 66  20 101  82  0.38 13.9 14.7 60 1.175 1.170 1.162 1.171 1.131 0.071 0.067 0.051 0.114 0.107
20-SEP-94 16:08:21 500 PROCESS-VENT  11.38  1.42  0.0   3  1.945 123 145 128  1.92 8.79 66  20 103  82  0.31 13.9 15.1 60 1.162 1.161 1.160 1.164 1.136 0.085 0.085 0.057 0.121 0.092

DATE: 20-SEP-94          LFSPE OXYGEN GENERATION       TIME: 16:09:13
MODE: ON                 STATE: PROCESS-VENT         STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.38 LB/DAY    HYDROGEN PRODUCTION RATE: 1.42 LB/DAY
OPERATING TIME:       0.0 HOURS         LAST 606 LEVEL:  2
     C6746-1   -1  % LEL        H2V760-1 1.160 V       VLT906-1  1.908  V
     C6746-2   -0  % LEL        H2V760-2 1.153 V       VLT906-2  1.874  V
     C6746-3   -0  % LEL        H2V760-3 1.166 V       VLT906-3  1.888  V
     C6746-4   -1  % LEL        H2V760-4 1.151 V       VLT906-4  1.875  V
     C5755    0.0 UMHO/CM       H2V900   1.132 V       VLT906-5  1.855  V
     I746      [illegible]  AMPS         H2PAVG   [illegible] V       VLT906-6  [illegible]  V
```

				1760-1 0.099 A		VLT906-8 1.970 V																									
				1760-2 0.099 A		VLT906-9 1.960 V																									
				1760-3 0.073 A		VLT906-10 1.930 V																									
20-SEP-94 16:09:21	500	PROCESS-VENT	11.35	1.41	04011 2.093	29	1.937	132	152	137	1.09	0.87	66	17	104	01	0.34	11.4	14.4	60	1.145	1.150	1.156	1.149	1.132	0.099	0.094	0.082	0.127	0.071	
20-SEP-94 16:10:21	500	PROCESS-VENT	11.39	1.42	0.0	3	1.932	138	157	144	1.06	0.73	66	16	105	02	0.30	12.5	13.9	60	1.136	1.145	1.143	1.144	1.137	0.109	0.111	0.085	0.137	0.063	
20-SEP-94 16:11:21	500	PROCESS-VENT	11.37	1.42	0.0	3	1.926	144	163	149	1.00	7.02	66	16	106	02	0.37	12.6	11.4	60	1.132	1.130	1.137	1.133	1.130	0.127	0.111	0.100	0.156	0.042	
20-SEP-94 16:12:21	500	PROCESS-VENT	11.34	1.41	0.0	3	1.919	148	167	154	1.93	0.04	66	16	107	02	0.34	15.1	11.3	60	1.126	1.129	1.134	1.126	1.134	0.140	0.120	0.121	0.161	0.031	
20-SEP-94 16:13:21	500	PROCESS-VENT	11.40	1.42	0.0	4	1.911	150	172	155	1.96	0.29	66	10	107	03	0.30	15.1	12.5	60	1.125	1.123	1.122	1.123	1.136	0.151	0.142	0.136	0.171	0.027	

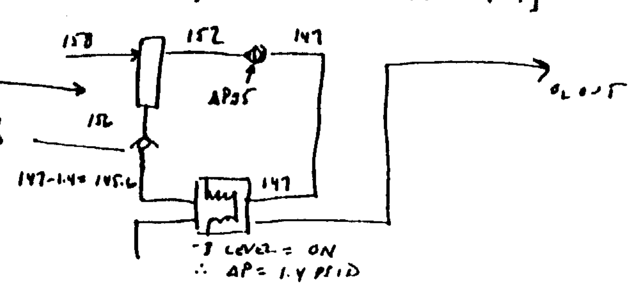
DATE: 20 SEP-94 LFSPE OXYGEN GENERATION TIME: 16:14:11
MODE: ON STATE: PROCESS-VENT STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.31 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 606 LEVEL: 3

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 152 PSIA
V005-1 VENT	LEV606-2 OFF	P706-2 174 PSIA
V005-2 VENT	LEV606-3 ON	P706-3 150 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.00 PSID
V051-2 OPEN	LEV606-5 OFF	DP700 7.02 PSID
V053 CLOSED	LEV606-6 OFF	DP749-1 66 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 19 PSID
V001-2 CLOSED	PMP705 ON	T762-1 100 F
V001-3 CLOSED		T762-2 100 F
V001-4 CLOSED	CALC745 0.32 GPH	T736-1 83 F
FAN422 OFF	LEV603-1 15.0 CU IN	T736-2 84 F
PMP463 ON	LEV603-2 13.9 CU IN	P713 145 PSIS
PMP464 OFF		

HYDROPHOBIC MEMBRANE ΔP

[ESTABLISHED BY ITEM 151, ITEM 606 AND ITEM 104-4]



ANOMALY:
ADVICE:

20-SEP-94 16:14:21	500	PROCESS-VENT	11.37	1.42	0.0	3	1.903	133	175	150	1.97	0.00	66	10	109	03	0.30	15.1	13.0	60	1.106	1.120	1.117	1.107	1.136	0.150	0.144	0.141	0.106	0.056

DATE: 20-SEP-94 LFSPE OXYGEN GENERATION TIME: 16:14:24
MODE: ON STATE: PROCESS-VENT STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.37 LB/DAY HYDROGEN PRODUCTION RATE: 1.42 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 606 LEVEL: 3

CG746-1 -2 % LEL	H2V760-1 1.107 V	VLT906-1 1.079 V
CG746-2 -1 % LEL	H2V760-2 1.116 V	VLT906-2 1.039 V
CG746-3 -0 % LEL	H2V760-3 1.117 V	VLT906-3 1.052 V
CG746-4 -1 % LEL	H2V760-4 1.105 V	VLT906-4 1.034 V
CS755 0.7 UMHO/CM	H2V900 1.129 V	VLT906-5 1.000 V
I766 60 AMPS	H2PAVG 1.115 V	VLT906-6 1.079 V
		VLT906-7 1.963 V
	1760-1 0.156 A	VLT906-8 1.960 V
	1760-2 0.140 A	VLT906-9 1.939 V
	1760-3 0.159 A	VLT906-10 1.900 V
	1760-4 0.194 A	VLT906-11 2.039 V
	1900 0.049 A	VLT906-12 1.930 V
		CELLAVG 1.905 V

CURRENTS BUILDING OK USING SEPARATE POWER SUPPLY - NEED TO REPLACE OLD ONE (WHY ARE THEY GROWING?)

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 2 OF 2

>72.5 PSID; OCCURRED IN OFF MODE (OK); WILL BE CORRECTED WITH REFURBISHED UNIT.

20-SEP-94 16:14:46	210	FAIL	11.39	1.42	0.0	3	0.000	153	176	150	1.01	0.27	72	19	100	03	0.33	15.1	15.0	10	1.032	1.031	1.037	1.040	1.073	0.035	0.029	0.033	0.047	0.023
20-SEP-94 16:15:21	210	FAIL	0.00	0.00	0.0	3	0.000	112	128	117	2.03	9.13	59	14	105	03	0.34	15.1	15.0	-0	0.901	0.905	0.906	0.905	0.024	0.005	0.006	0.009	0.020	0.016
20-SEP-94 16:16:21	210	FAIL	0.00	0.00	0.0	3	0.000	55	72	40	2.03	0.00	51	16	105	03	0.40	15.1	15.1	-0	0.042	0.053	0.050	0.062	0.490	0.005	0.006	0.005	0.033	0.012
20-SEP-94 16:17:21	210	FAIL	0.00	0.00	0.0	4	0.000	25	41	30	1.90	0.00	22	14	103	03	0.35	15.1	15.0	-0	0.041	0.042	0.042	0.040	0.612	0.002	0.004	0.002	0.035	0.009
20-SEP-94 16:19:21	210	FAIL	0.00	0.00	0.0	5	0.000	14	29	15	0.29	0.00	12	14	102	03	0.00	15.1	15.3	-0	0.032	0.038	0.050	0.057	0.397	0.002	0.007	0.002	0.045	0.006

LFSPE OXYGEN GENERATION

DATE	TIME	AMB	STATE	O2 PROD	H2 PROD	OPTIME	LLEV-606	CELLAVG	P706-1	P706-2	P706-3	DP709	DP708	DP749-1	DP749-2
				LB/DAY	LB/DAY	HOURS		V	PSIA	PSIA	PSIA	PSID	PSID	PSID	PSID
22-SEP-94	00:18:07	500	OFF	0.00	0.00	0.0	6	0.000	16	19	20	0.90	0.14	2	2
22-SEP-94	00:19:07	500	PURGE	0.00	0.00	0.0	6	0.106	16	19	17	0.22	0.00	2	2
22-SEP-94	00:20:07	500	PURGE	0.00	0.00	0.0	6	0.106	16	19	18	0.18	0.00	2	2
22-SEP-94	00:21:07	500	PURGE	0.00	0.00	0.0	7	0.108	16	19	23	1.75	0.00	2	2
22-SEP-94	00:22:07	500	PURGE	0.00	0.00	0.0	6	0.108	15	19	22	1.75	0.00	2	3
22-SEP-94	00:23:07	500	PURGE	0.00	0.00	0.0	6	0.111	15	18	22	1.84	0.00	2	3
22-SEP-94	00:24:07	500	PURGE	0.00	0.00	0.0	6	0.112	15	19	21	1.88	0.00	2	3
22-SEP-94	00:25:07	500	PURGE	0.00	0.00	0.0	6	0.112	15	19	21	1.91	0.00	2	3
22-SEP-94	00:26:07	500	PURGE	0.00	0.00	0.0	6	0.111	14	19	21	1.96	0.00	2	3
22-SEP-94	00:27:07	500	PURGE	0.00	0.00	0.0	6	0.113	15	19	21	1.99	0.00	2	3
22-SEP-94	00:28:07	500	PURGE	0.00	0.00	0.0	6	0.117	15	19	21	2.02	0.00	2	3
22-SEP-94	00:29:07	500	PURGE	0.00	0.00	0.0	6	0.117	15	19	20	2.01	0.00	2	3
22-SEP-94	00:30:07	500	PURGE	0.00	0.00	0.0	6	0.117	15	19	20	2.07	0.00	2	3
22-SEP-94	00:31:07	500	PURGE	0.00	0.00	0.0	6	0.119	15	19	20	2.10	0.00	2	3
22-SEP-94	00:32:07	500	PURGE	0.00	0.00	0.0	5	0.118	15	19	20	2.10	0.00	2	3
22-SEP-94	00:33:07	500	PURGE	0.00	0.00	0.0	5	0.117	15	19	19	2.13	0.00	2	3
22-SEP-94	00:34:06	500	PURGE	0.00	0.00	0.0	4	0.118	15	19	20	2.14	0.00	2	3
22-SEP-94	00:35:07	500	PURGE	0.00	0.00	0.0	4	0.120	15	21	20	2.19	0.00	3	5
22-SEP-94	00:36:06	500	PURGE	0.00	0.00	0.0	4	0.118	15	21	18	2.09	0.00	3	5
22-SEP-94	00:37:06	500	PURGE	0.00	0.00	0.0	3	0.118	15	27	19	2.14	0.00	11	11
22-SEP-94	00:38:07	500	PURGE	0.00	0.00	0.0	3	0.119	15	30	19	2.12	0.00	21	22
22-SEP-94	00:39:07	500	PURGE	0.00	0.00	0.0	3	0.119	15	49	19	2.12	0.00	32	33
22-SEP-94	00:40:06	500	PROCESS-VENT	3.01	0.47	0.0	4	1.675	19	30	24	2.18	0.74	39	37
22-SEP-94	00:41:06	500	PROCESS-VENT	8.30	1.04	0.0	3	1.815	32	40	36	1.99	1.04	40	34
22-SEP-94	00:42:06	500	PROCESS-VENT	11.44	1.43	0.0	3	2.004	51	78	55	1.99	2.45	55	24
22-SEP-94	00:43:07	500	PROCESS-VENT	11.42	1.42	0.0	2	2.095	68	88	72	1.94	2.29	60	17
22-SEP-94	00:44:06	500	PROCESS-VENT	11.38	1.42	0.0	3	2.085	77	97	82	1.97	2.69	62	18
22-SEP-94	00:45:06	500	PROCESS-VENT	11.45	1.43	0.0	4	2.073	84	104	89	1.92	5.56	64	19
22-SEP-94	00:46:06	500	PROCESS-VENT	11.40	1.42	0.0	4	2.057	92	114	97	1.87	6.75	65	20
22-SEP-94	00:47:06	500	PROCESS-VENT	11.40	1.42	0.0	3	2.047	100	122	104	1.92	7.54	66	20
22-SEP-94	00:48:06	500	PROCESS-VENT	11.39	1.42	0.0	3	2.033	108	131	112	1.93	8.24	66	20
22-SEP-94	00:49:06	500	PROCESS-VENT	11.37	1.42	0.0	2	2.026	116	138	121	1.96	8.52	67	18
22-SEP-94	00:50:06	500	PROCESS-VENT	11.30	1.42	0.0	3	2.020	125	144	130	1.96	8.78	67	16
22-SEP-94	00:51:06	500	PROCESS-VENT	11.35	1.41	0.0	4	2.013	132	151	137	1.97	8.98	67	16
22-SEP-94	00:52:06	500	PROCESS-VENT	11.35	1.42	0.0	4	2.002	134	156	139	1.92	9.29	67	19

DATE	TIME	T762-1	T736-1	CALC745	LEV605-1	LEV605-2	I766	H2V760-1	H2V760-2	H2V760-3	H2V760-4	H2V900	I760-1	I760-2	I760-3	I760-4	I900
		F	F	GPM	CU IN	CU IN	AMPS	V	V	V	V	V	A	A	A	A	A
22-SEP-94	00:18:07	70	70	0.00	14.0	16.5	-1	0.000	0.000	0.000	0.000	0.524	0.002	0.006	0.004	0.043	0.037
22-SEP-94	00:19:07	70	71	0.00	12.7	16.4	-1	0.923	0.923	0.927	0.922	1.154	0.469	0.469	0.393	0.503	0.061
22-SEP-94	00:20:07	70	71	0.00	14.1	16.4	-1	1.133	1.137	1.131	1.118	1.156	0.107	0.111	0.098	0.156	0.010
22-SEP-94	00:21:07	70	71	0.12	14.0	16.5	-1	1.175	1.171	1.167	1.171	1.160	0.039	0.030	0.035	0.072	0.070
22-SEP-94	00:22:07	70	71	0.15	14.0	16.5	-1	1.186	1.183	1.183	1.173	1.159	0.020	0.026	0.022	0.056	0.043
22-SEP-94	00:23:07	70	71	0.00	14.0	16.5	-1	1.183	1.179	1.179	1.176	1.154	0.021	0.022	0.020	0.055	0.015
22-SEP-94	00:24:07	70	71	0.00	13.9	16.4	-1	1.186	1.183	1.181	1.182	1.161	0.015	0.015	0.016	0.054	0.044
22-SEP-94	00:25:07	70	71	0.11	14.0	16.5	-1	1.183	1.181	1.178	1.179	1.165	0.015	0.011	0.010	0.053	0.020
22-SEP-94	00:26:07	70	71	0.00	13.9	16.5	-1	1.186	1.186	1.183	1.175	1.158	0.010	0.011	0.009	0.045	0.037
22-SEP-94	00:27:07	71	71	0.10	14.0	16.5	-1	1.187	1.190	1.187	1.182	1.162	0.010	0.012	0.006	0.046	0.013
22-SEP-94	00:28:07	70	71	0.00	14.0	16.4	-0	1.186	1.188	1.189	1.176	1.159	0.006	0.010	0.006	0.042	0.022
22-SEP-94	00:29:07	71	71	0.00	13.9	16.4	-1	1.193	1.183	1.192	1.178	1.164	0.010	0.007	0.007	0.039	0.026
22-SEP-94	00:30:07	71	71	0.15	14.0	16.4	-0	1.192	1.186	1.192	1.178	1.167	0.006	0.010	0.006	0.044	0.033
22-SEP-94	00:31:07	71	71	0.00	13.9	16.4	-1	1.189	1.192	1.189	1.183	1.158	0.009	0.011	0.007	0.040	0.034
22-SEP-94	00:32:07	71	71	0.03	13.9	16.4	-0	1.189	1.195	1.184	1.187	1.161	0.005	0.011	0.009	0.045	0.040
22-SEP-94	00:33:07	71	71	0.06	13.9	16.5	-1	1.193	1.195	1.193	1.184	1.159	0.007	0.009	0.010	0.040	0.023
22-SEP-94	00:34:06	71	71	0.00	14.0	16.4	-1	1.190	1.184	1.183	1.188	1.160	0.005	0.007	0.005	0.044	0.067
22-SEP-94	00:35:07	71	71	0.00	14.0	16.4	-1	1.189	1.179	1.180	1.187	1.170	0.006	0.006	0.006	0.044	0.030
22-SEP-94	00:36:06	71	71	0.17	14.0	16.4	-0	1.188	1.195	1.187	1.187	1.166	0.005	0.009	0.011	0.040	0.020
22-SEP-94	00:37:06	71	71	0.00	13.9	16.4	-1	1.192	1.197	1.190	1.181	1.159	0.012	0.011	0.010	0.040	0.072
22-SEP-94	00:38:07	71	71	0.05	13.9	16.4	-0	1.188	1.189	1.188	1.186	1.162	0.005	0.012	0.011	0.045	0.032
22-SEP-94	00:39:07	71	71	0.07	13.9	16.4	-1	1.188	1.189	1.189	1.187	1.164	0.011	0.009	0.007	0.046	0.042
22-SEP-94	00:40:06	72	72	0.20	14.0	16.5	23	1.198	1.195	1.194	1.193	1.154	0.009	0.011	0.011	0.040	0.020
22-SEP-94	00:41:06	74	72	0.28	14.0	16.4	45	0.978	0.902	0.980	0.973	1.154	0.000	0.000	0.000	0.000	0.035
22-SEP-94	00:42:06	79	71	0.32	14.0	16.3	60	1.182	1.174	1.186	1.172	1.156	0.012	0.022	0.018	0.042	0.029
22-SEP-94	00:43:07	82	72	0.31	11.4	15.2	60	1.197	1.197	1.193	1.194	1.153	0.012	0.024	0.016	0.050	0.044
22-SEP-94	00:44:06	85	72	0.26	10.1	11.4	60	1.193	1.194	1.192	1.189	1.154	0.017	0.033	0.031	0.062	0.040
22-SEP-94	00:45:06	87	72	0.24	13.9	16.4	60	1.192	1.198	1.190	1.186	1.154	0.026	0.032	0.030	0.067	0.046
22-SEP-94	00:46:06	89	71	0.29	15.1	16.4	60	1.186	1.190	1.195	1.182	1.140	0.035	0.046	0.049	0.071	0.087
22-SEP-94	00:47:06	91	72.	0.34	15.2	16.5	60	1.183	1.170	1.184	1.175	1.153	0.045	0.057	0.051	0.085	0.065
22-SEP-94	00:48:06	93	72	0.35	16.3	16.5	60	1.176	1.172	1.181	1.172	1.149	0.066	0.067	0.078	0.095	0.046
22-SEP-94	00:49:06	94	72	0.32	17.7	15.2	60	1.162	1.167	1.172	1.160	1.145	0.074	0.079	0.076	0.120	0.038
22-SEP-94	00:50:06	95	72	0.27	18.9	18.2	60	1.154	1.156	1.156	1.158	1.150	0.088	0.079	0.094	0.129	0.099
22-SEP-94	00:51:06	97	72	0.34	13.9	12.6	60	1.150	1.149	1.142	1.140	1.143	0.106	0.103	0.116	0.138	0.049
22-SEP-94	00:52:06	98	72	0.32	14.0	14.0	60	1.144	1.140	1.138	1.145	1.142	0.116	0.112	0.121	0.140	0.042

DATE: 22-SEP-94   LFSPE OXYGEN GENERATION   TIME: 00:52:15
MODE: ON   STATE: PROCESS-VENT   STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.34 LB/DAY   HYDROGEN PRODUCTION RATE: 1.42 LB/DAY
OPERATING TIME: 0.0 HOURS   LAST 606 LEVEL: 4

CG746-1 -1 % LEL	H2V760-1 1.139 V		VLT906-1 1.967 V
CG746-2 -1 % LEL	H2V760-2 1.147 V		VLT906-2 1.943 V
CG746-3 -0 % LEL	H2V760-3 1.136 V		VLT906-3 1.934 V
CG746-4 -1 % LEL	H2V760-4 1.144 V		VLT906-4 1.920 V
CS755 0.9 UMHO/CM	H2V900 1.147 V		VLT906-5 1.901 V
I766 60 AMPS	H2PAVG 1.142 V		VLT906-6 1.972 V
			VLT906-7 2.061 V
	I760-1 0.115 A		VLT906-8 2.065 V
	I760-2 0.112 A		VLT906-9 2.034 V
	I760-3 0.121 A		VLT906-10 2.001 V
	I760-4 0.103 A		VLT906-11 2.136 V
	I900 0.060 A		VLT906-12 2.090 V
			CELLAVG 2.000 V

ANOMALY:
ADVICE:

(F1) PAGE   (F4) CONFIG CNTRL   (F7) ACKNOWLEDGE   (F10) MODIFY OPER
(F2) SUBSYSTEM PARA   (F5) MANUAL OPER   (F8) DATA LOGGING

22-SEP-94 08:54:06 500 PROCESS-VENT	11.34	1.41	0.0	3	1.961	144	166	149	1.92	6.29	67	10	101	72	0.30	13.9	15.1	60	1.126	1.110	1.121	1.130	1.145	0.114	0.116	0.126	0.149	0.035
22-SEP-94 08:55:06 500 PROCESS-VENT	11.39	1.42	0.0	3	1.973	149	170	153	1.95	7.72	66	10	102	73	0.36	13.9	17.7	60	1.030	1.033	1.030	1.039	1.155	0.132	0.129	0.149	0.165	0.024
22-SEP-94 08:56:06 500 PROCESS-VENT	11.29	1.41	0.0	2	1.970	155	174	160	1.99	6.79	67	15	102	72	0.37	10.2	17.6	60	1.031	1.023	1.029	1.026	1.154	0.145	0.140	0.156	0.186	0.040
22-SEP-94 08:57:06 500 PROCESS-VENT	11.30	1.42	0.0	3	1.963	158	177	163	1.96	7.14	67	16	103	72	0.34	12.6	14.0	60	1.020	1.010	1.032	1.010	1.154	0.160	0.160	0.172	0.190	0.044
22-SEP-94 08:58:06 500 PROCESS-VENT	11.22	1.40	0.0	4	1.955	159	180	164	2.02	6.40	67	10	103	72	0.40	13.9	12.5	60	1.015	1.015	1.021	1.015	1.152	0.165	0.161	0.182	0.194	0.043
22-SEP-94 08:59:06 500 PROCESS-VENT	11.27	1.40	0.0	4	1.940	161	183	166	2.05	6.73	67	10	105	72	0.36	15.1	12.6	60	1.017	1.009	1.020	1.010	1.150	0.179	0.165	0.192	0.209	0.042
22-SEP-94 09:00:06 500 PROCESS-VENT	11.20	1.41	0.0	3	1.943	163	184	167	2.11	6.33	66	10	106	72	0.42	15.2	12.5	60	1.011	1.011	1.011	1.004	1.142	0.181	0.175	0.201	0.209	0.033
22-SEP-94 09:01:06 500 PROCESS-VENT	11.25	1.40	0.0	3	1.932	164	185	169	2.12	6.69	66	17	106	73	0.34	17.7	12.5	60	1.011	1.006	1.004	1.007	1.144	0.182	0.175	0.201	0.208	0.042
22-SEP-94 09:02:06 500 PROCESS-VENT	11.30	1.41	0.0	2	1.920	167	186	172	2.14	5.72	66	15	107	73	0.36	17.7	11.4	60	1.001	0.999	1.004	1.005	1.154	0.194	0.170	0.205	0.231	0.054
22-SEP-94 09:03:06 500 PROCESS-VENT	11.32	1.41	0.0	3	1.925	160	186	173	2.16	6.07	66	14	107	73	0.41	14.9	12.6	60	0.999	0.999	0.990	0.993	1.155	0.195	0.180	0.212	0.226	0.031
22-SEP-94 09:04:06 500 PROCESS-VENT	11.27	1.40	0.0	3	1.910	167	186	173	2.19	5.03	66	14	107	73	0.40	10.1	14.0	60	0.999	0.999	0.991	0.976	1.154	0.201	0.186	0.213	0.233	0.042
22-SEP-94 09:05:06 500 PROCESS-VENT	11.30	1.41	0.0	4	1.914	169	186	170	2.24	6.47	66	10	100	73	0.40	12.6	16.5	60	0.990	0.999	1.001	0.990	1.154	0.211	0.195	0.216	0.232	0.004
22-SEP-94 09:06:06 500 PROCESS-VENT	11.25	1.40	0.0	3	1.900	164	186	170	2.22	6.13	66	10	109	73	0.40	12.6	16.4	60	0.995	0.999	0.994	0.998	1.162	0.211	0.190	0.227	0.234	0.026
22-SEP-94 09:07:06 500 PROCESS-VENT	11.33	1.41	0.0	3	1.900	164	186	170	2.26	5.00	66	10	110	74	0.41	13.9	16.4	60	0.989	0.993	0.983	0.983	1.153	0.209	0.195	0.220	0.237	0.021
22-SEP-94 09:08:06 500 PROCESS-VENT	11.32	1.41	0.0	3	1.897	165	186	170	2.29	6.02	66	17	111	74	0.30	15.1	16.4	60	0.980	0.989	0.984	0.994	1.159	0.210	0.200	0.226	0.239	0.034
22-SEP-94 09:09:06 500 PROCESS-VENT	11.27	1.40	0.0	2	1.894	160	186	173	2.24	5.34	66	14	111	74	0.30	16.5	15.2	60	0.994	0.999	0.999	1.006	1.151	0.210	0.199	0.231	0.238	0.029
22-SEP-94 09:10:06 500 PROCESS-VENT	11.20	1.41	0.0	3	1.889	166	186	172	2.20	5.30	66	16	111	74	0.37	17.7	11.4	60	1.004	0.990	0.994	0.994	1.151	0.221	0.206	0.225	0.249	0.040
22-SEP-94 09:11:06 500 PROCESS-VENT	11.26	1.40	0.0	4	1.889	160	190	173	2.20	6.07	66	10	111	73	0.43	15.1	12.6	60	0.991	0.990	0.995	0.990	1.150	0.225	0.210	0.234	0.253	0.023
22-SEP-94 09:12:06 500 PROCESS-VENT	11.26	1.40	0.0	4	1.880	172	194	177	2.33	6.66	66	10	111	74	0.30	15.2	13.9	60	0.989	0.987	0.989	0.994	1.156	0.236	0.212	0.249	0.259	0.037
22-SEP-94 09:13:06 500 PROCESS-VENT	11.21	1.40	0.0	3	1.870	175	194	180	2.35	5.33	66	16	112	74	0.41	15.2	15.2	60	1.029	1.027	1.035	1.015	1.151	0.241	0.227	0.256	0.281	0.030
22-SEP-94 09:14:06 500 PROCESS-VENT	11.22	1.40	0.0	3	1.872	176	194	181	2.31	5.34	66	15	113	74	0.35	15.0	15.1	60	1.026	1.020	1.032	1.010	1.150	0.244	0.230	0.265	0.274	0.034
22-SEP-94 09:15:06 500 PROCESS-VENT	11.23	1.40	0.0	2	1.869	176	194	181	2.30	4.95	65	15	113	75	0.39	14.2	17.7	60	1.024	1.031	1.024	1.021	1.150	0.247	0.234	0.270	0.277	0.032
22-SEP-94 09:16:06 500 PROCESS-VENT	11.21	1.40	0.0	3	1.868	176	195	181	2.33	4.07	65	14	113	75	0.44	10.1	17.6	60	1.020	1.022	1.020	1.021	1.153	0.249	0.232	0.271	0.286	0.030
22-SEP-94 09:17:06 500 PROCESS-VENT	11.21	1.40	0.0	3	1.870	176	194	182	2.36	5.15	65	14	113	75	0.45	12.6	15.2	60	1.010	1.010	1.026	1.016	1.149	0.252	0.236	0.274	0.280	0.043
22-SEP-94 09:18:06 500 PROCESS-VENT	11.27	1.41	0.0	4	1.865	174	194	180	2.30	5.50	65	16	113	75	0.43	14.0	12.6	60	1.017	1.015	1.010	1.011	1.140	0.252	0.231	0.270	0.283	0.034
22-SEP-94 09:19:06 500 PROCESS-VENT	11.24	1.40	0.0	4	1.857	173	194	178	2.38	5.04	65	10	114	76	0.43	15.1	12.6	60	1.017	1.017	1.024	1.012	1.151	0.256	0.220	0.274	0.284	0.050
22-SEP-94 09:20:06 500 PROCESS-VENT	11.26	1.40	0.0	3	1.856	173	194	178	2.30	5.32	65	10	115	75	0.44	15.1	12.4	60	1.017	1.017	1.022	1.013	1.148	0.264	0.234	0.277	0.281	0.031
22-SEP-94 09:21:06 500 PROCESS-VENT	11.17	1.39	0.0	3	1.854	173	194	178	2.41	5.07	65	10	115	76	0.42	17.7	12.5	60	1.013	1.017	1.020	1.009	1.150	0.254	0.237	0.272	0.289	0.045

DATE: 22-SEP-94 LFSPE OXYGEN GENERATION TIME: 09:21:35
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.24 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 606 LEVEL: 2

V003 FILL1/DRAIN2	LEV606-1 OFF	P706-1 173 PSIA
V005-1 PRODUCT	LEV606-2 ON	P706-2 194 PSIA
V005-2 PRODUCT	LEV606-3 OFF	P706-3 170 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.30 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 4.92 PSID
V053 CLOSED	LEV606-6 OFF	DP749-1 65 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 10 PSID
V001-2 OPEN	PUD705 ON	T762-1 115 F
V001-3 CLOSED		T762-2 116 F
V001-4 CLOSED	CALC745 0.43 GPH	T736-1 76 F
FAN422 OFF	LEV605-1 17.5 CU IN	T736-2 78 F
PMP443 ON	LEV605-2 12.6 CU IN	P713 167 PSIS
PMP444 ON		

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
22-SEP-94 09:22:00A500[PROC]NORMAL OPER [00]IDATA]LOGGING0.0 2 1.840 174 194 179 2.37 4.76 65 16 116 76 0.42 19.0 11.4 60 1.012 1.016 1.017 1.012 1.149 0.259 0.236 0.265 0.270 0.029

DATE: 22-SEP-94 LFSPE OXYGEN GENERATION TIME: 09:22:11
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.19 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 606 LEVEL: 2

CG746-1 -1 % LEL	H2V760-1 1.012 V	VLT906-1 1.023 V
CG746-2 -0 % LEL	H2V760-2 1.016 V	VLT906-2 1.704 V
CG746-3 -0 % LEL	H2V760-3 1.010 V	VLT906-3 1.005 V
CG746-4 -1 % LEL	H2V760-4 1.010 V	VLT906-4 1.703 V
CS755 0.9 UMHO/CM	H2V900 1.142 V	VLT906-5 1.764 V

1760-1 0.266 A	VL1906-8 1.917 V
1760-2 0.230 A	VL1906-9 1.003 V
1760-3 0.271 A	VL1906-10 1.055 V
1760-4 0.282 A	VL1906-11 1.946 V
1900 0.043 A	VL1906-12 1.900 V
	CELLAVG 1.049 V

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 2 OF 2

22-SEP-94 09:23:06 500 PROCESS	11.21	1.40	0.0	3	1.050	176	194	182	2.38	5.10	65	14	115	76	0.41	15.2	12.6	60	1.009	1.015	1.011	1.009	1.153	0.250	0.234	0.272	0.294	0.085
22-SEP-94 09:24:05 500 PROCESS	11.19	1.40	0.0	3	1.047	176	194	182	2.43	5.10	65	14	115	76	0.40	12.6	14.0	60	1.006	1.009	1.011	1.015	1.159	0.265	0.245	0.270	0.294	0.035
22-SEP-94 09:25:06 500 PROCESS	11.20	1.40	0.0	4	1.047	175	194	180	2.46	4.93	65	16	115	77	0.46	11.4	16.5	60	1.007	1.010	1.016	1.005	1.156	0.270	0.236	0.270	0.289	0.084
22-SEP-94 09:26:06 500 PROCESS	11.24	1.40	0.0	4	1.044	173	194	178	2.46	5.17	65	18	116	77	0.46	12.6	16.4	60	1.006	1.013	1.007	1.011	1.153	0.274	0.243	0.278	0.286	0.027
22-SEP-94 09:27:06 500 PROCESS	11.24	1.40	0.0	3	1.039	173	194	179	2.43	4.69	65	18	117	76	0.39	14.0	16.3	60	1.002	1.011	1.011	1.004	1.151	0.266	0.240	0.280	0.292	0.024
22-SEP-94 09:28:06 500 PROCESS	11.23	1.40	0.0	3	1.038	173	194	178	2.44	4.78	65	18	117	77	0.46	15.1	16.5	60	0.999	1.010	1.005	1.005	1.150	0.270	0.242	0.275	0.295	0.033
22-SEP-94 09:29:05 500 PROCESS	11.22	1.40	0.1	3	1.035	173	195	178	2.46	4.73	65	18	118	77	0.43	16.4	18.4	60	1.007	1.009	1.010	1.012	1.147	0.271	0.240	0.280	0.299	0.046
22-SEP-94 09:30:05 500 PROCESS	11.16	1.39	0.1	2	1.036	174	194	182	2.44	4.50	65	14	117	77	0.44	17.7	13.9	60	1.006	1.001	1.007	1.010	1.143	0.280	0.250	0.282	0.303	0.023
22-SEP-94 09:31:05 500 PROCESS	11.21	1.40	0.1	3	1.035	177	194	183	2.47	5.04	65	14	117	78	0.40	18.6	10.7	59	1.004	1.012	1.010	1.004	1.147	0.274	0.243	0.281	0.303	0.035
22-SEP-94 09:32:05 500 PROCESS	11.25	1.40	0.1	3	1.037	176	194	182	2.44	5.29	64	14	117	78	0.43	15.1	12.7	60	1.009	1.011	1.011	1.002	1.155	0.269	0.255	0.282	0.297	0.030
22-SEP-94 09:33:05 500 PROCESS	11.25	1.40	0.1	4	1.031	173	195	179	2.46	4.92	64	17	118	78	0.42	13.9	14.0	60	1.007	1.006	0.996	1.002	1.149	0.274	0.250	0.294	0.287	0.031
22-SEP-94 09:34:05 500 PROCESS	11.21	1.40	0.1	3	1.028	173	194	179	2.50	4.53	64	18	118	78	0.44	14.0	15.2	60	1.005	1.006	1.005	1.005	1.150	0.274	0.250	0.294	0.293	0.028
22-SEP-94 09:35:05 500 PROCESS	11.16	1.39	0.2	3	1.024	173	194	179	2.52	4.40	64	18	118	78	0.45	13.9	16.3	60	0.999	0.993	1.001	0.993	1.151	0.275	0.245	0.295	0.299	0.048
22-SEP-94 09:36:05 500 PROCESS	11.23	1.40	0.2	3	1.024	173	194	179	2.50	4.74	64	18	119	79	0.42	14.0	17.0	60	0.999	1.002	1.001	0.999	1.150	0.287	0.254	0.290	0.311	0.034
22-SEP-94 09:37:05 500 PROCESS	11.20	1.40	0.2	2	1.024	176	194	181	2.43	5.14	64	15	118	79	0.46	12.8	18.0	60	0.995	0.993	0.996	0.995	1.150	0.282	0.259	0.302	0.303	0.045
22-SEP-94 09:38:05 500 PROCESS	11.21	1.40	0.2	3	1.023	174	195	180	2.50	5.45	64	17	119	79	0.44	12.6	16.7	60	0.995	0.998	0.999	0.999	1.149	0.288	0.259	0.295	0.316	0.037
22-SEP-94 09:39:05 500 PROCESS	11.22	1.40	0.2	3	1.023	174	195	179	2.47	5.00	64	17	118	79	0.47	13.9	14.0	60	0.999	1.001	0.994	0.995	1.148	0.284	0.256	0.303	0.313	0.048
22-SEP-94 09:40:05 500 PROCESS	11.24	1.40	0.2	4	1.022	173	195	179	2.50	4.63	64	17	118	79	0.44	15.1	11.4	60	0.988	0.998	0.998	0.988	1.149	0.287	0.268	0.297	0.314	0.049
22-SEP-94 09:41:05 500 PROCESS	11.15	1.39	0.2	4	1.019	173	195	179	2.52	4.66	64	18	119	79	0.42	15.2	11.3	60	0.995	0.999	0.998	0.995	1.150	0.288	0.266	0.299	0.309	0.045
22-SEP-94 09:42:05 500 PROCESS	11.21	1.40	0.3	3	1.022	173	194	179	2.52	4.32	64	18	119	80	0.42	17.7	11.4	60	0.995	0.993	0.985	0.995	1.143	0.284	0.270	0.309	0.313	0.048

DATE: 22-SEP-94 LFSPE OXYGEN GENERATION TIME: 09:42:10
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.21 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 0.3 HOURS LAST 606 LEVEL: 3

V003 FILL1/DRAIN2	LEV606-1 OFF	P706-1 173 PSIA
V005-1 PRODUCT	LEV606-2 OFF	P706-2 195 PSIA
V005-2 PRODUCT	LEV606-3 ON	P706-3 179 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.52 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 4.57 PSID
V033 CLOSED	LEV606-6 OFF	DP749-1 64 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 18 PSID
V001-2 CLOSED	PUR705 ON	T762-1 118 F
V001-3 CLOSED		T762-2 119 F
V001-4 CLOSED	CALC745 0.44 GPM	T736-1 80 F
FAN422 ON	LEV605-1 17.6 CU IN	T736-2 82 F
PMP463 ON	LEV605-2 11.3 CU IN	P713 160 PSIS
PMP464 OFF		

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 1 OF 2

22-SEP-94 09:43:05 500 PROCESS	11.23	1.40	0.3	3	1.039	173	195	179	2.55	4.89	64	18	115	79	0.42	17.9	11.3	60	0.995	0.995	0.999	0.993	1.151	0.287	0.270	0.299	0.313	0.051
22-SEP-94 09:44:05 500 PROCESS	11.24	1.40	0.3	2	1.028	175	195	181	2.55	4.31	64	16	117	80	0.44	18.9	11.4	60	0.993	0.999	0.987	0.988	1.142	0.293	0.275	0.300	0.320	0.027
22-SEP-94 09:45:05 500 PROCESS	11.26	1.40	0.3	3	1.020	177	194	183	2.48	5.20	64	14	117	81	0.44	15.1	12.6	60	0.983	0.996	0.996	0.987	1.145	0.297	0.271	0.310	0.309	0.019
22-SEP-94 09:46:05 500 PROCESS	11.20	1.41	0.3	3	1.024	177	195	183	2.55	4.95	64	14	117	80	0.39	12.6	13.9	60	1.027	1.020	1.024	1.017	1.156	0.295	0.272	0.315	0.322	0.009
22-SEP-94 09:47:05 500 PROCESS	11.20	1.40	0.3	3	1.024	177	194	184	2.57	4.46	63	14	117	90	0.40	[illegible]	13.9	60	1.018	1.020	1.027	1.013	1.149	0.291	0.271	0.313	0.325	0.029

22-SEP-94 09:50:05 500 PROCESS	11.22	1.40	0.4	3	1.017	173	195	100	2.40	4.30	43	17	119	81	0.41	15.1	12.4	60	1.017	1.016	1.021	1.016	1.150	0.295	0.276	0.320	0.311	0.026
22-SEP-94 09:51:05 500 PROCESS	11.26	1.40	0.4	3	1.014	174	195	179	2.37	4.73	43	18	119	81	0.44	16.4	12.7	60	1.016	1.023	1.023	1.015	1.151	0.303	0.276	0.324	0.315	0.044
22-SEP-94 09:52:05 500 PROCESS	11.29	1.41	0.4	2	1.035	176	195	101	2.35	4.95	43	15	114	81	0.45	17.7	10.8	60	1.017	1.016	1.021	1.015	1.180	0.305	0.277	0.317	0.324	0.038
22-SEP-94 09:53:05 500 PROCESS	11.22	1.40	0.4	3	1.020	177	195	103	2.32	5.40	43	14	117	81	0.41	13.9	12.7	60	1.020	1.015	1.021	1.010	1.155	0.299	0.277	0.324	0.320	0.035
22-SEP-94 09:54:05 500 PROCESS	11.24	1.40	0.4	3	1.024	178	195	103	2.37	4.89	43	14	117	81	0.46	11.3	14.0	60	1.012	1.010	1.017	1.013	1.151	0.297	0.274	0.322	0.321	0.049
22-SEP-94 09:55:05 500 PROCESS	11.20	1.41	0.5	3	1.023	177	195	104	2.34	5.01	44	17	117	82	0.43	12.4	13.9	60	1.013	1.011	1.020	1.015	1.140	0.303	0.270	0.320	0.322	0.029
22-SEP-94 09:56:05 500 PROCESS	11.22	1.40	0.5	4	1.020	174	195	101	2.40	4.56	43	18	118	82	0.42	12.4	12.5	60	1.016	1.017	1.021	1.013	1.150	0.303	0.276	0.320	0.321	0.046
22-SEP-94 09:57:05 500 PROCESS	11.27	1.40	0.5	3	1.016	173	195	100	2.43	4.65	43	18	118	82	0.42	11.0	12.6	60	1.018	1.017	1.020	1.006	1.143	0.300	0.272	0.321	0.324	0.044
22-SEP-94 09:58:05 500 PROCESS	11.27	1.40	0.5	3	1.014	173	195	100	2.41	4.44	43	18	119	82	0.43	15.1	12.5	60	1.015	1.017	1.022	1.012	1.145	0.302	0.272	0.325	0.317	0.022
22-SEP-94 09:59:05 500 PROCESS	11.27	1.40	0.5	3	1.014	173	195	100	2.50	4.79	43	15	115	83	0.44	17.4	12.6	60	1.012	1.015	1.012	1.012	1.149	0.306	0.284	0.316	0.332	0.038
22-SEP-94 10:00:05 500 PROCESS	11.24	1.40	0.5	2	1.031	176	195	102	2.50	4.71	43	14	116	83	0.44	17.7	11.4	60	1.017	1.013	1.020	1.012	1.151	0.310	0.280	0.322	0.326	0.020
22-SEP-94 10:01:05 500 PROCESS	11.27	1.41	0.6	3	1.023	178	195	100	2.50	5.19	43	14	116	83	0.42	15.2	12.6	60	1.010	1.011	1.013	1.013	1.153	0.310	0.281	0.320	0.335	0.004
22-SEP-94 10:02:05 500 PROCESS	11.20	1.41	0.6	3	1.024	178	195	104	2.57	4.07	43	14	117	83	0.41	12.7	13.9	60	1.007	1.006	1.015	1.002	1.151	0.300	0.284	0.330	0.331	0.026
22-SEP-94 10:03:05 500 PROCESS	11.23	1.40	0.6	3	1.019	177	195	104	2.42	5.12	43	14	117	83	0.44	11.4	15.1	60	1.009	1.015	1.010	1.007	1.149	0.310	0.280	0.322	0.336	0.026
22-SEP-94 10:04:04 500 PROCESS	11.20	1.41	0.6	4	1.010	175	195	102	2.40	4.85	43	16	118	84	0.45	12.5	15.1	60	1.005	1.009	1.011	1.007	1.150	0.304	0.280	0.325	0.324	0.005
22-SEP-94 10:05:05 500 PROCESS	11.20	1.41	0.6	3	1.015	174	196	101	2.43	4.74	43	18	118	83	0.40	14.0	15.3	60	1.005	1.007	1.006	1.011	1.155	0.317	0.289	0.327	0.331	0.040
22-SEP-94 10:06:05 500 PROCESS	11.23	1.40	0.6	3	1.013	174	195	100	2.41	4.40	43	18	119	84	0.43	15.1	15.3	60	1.005	1.007	1.009	1.012	1.140	0.320	0.280	0.327	0.330	0.002
22-SEP-94 10:07:05 500 PROCESS	11.24	1.40	0.6	3	1.012	174	195	100	2.42	4.49	43	17	119	84	0.42	16.4	15.2	60	1.009	1.013	1.007	1.015	1.144	0.314	0.289	0.333	0.320	0.030
22-SEP-94 10:08:05 500 PROCESS	11.26	1.40	0.7	2	1.031	176	196	102	2.38	4.64	43	15	115	84	0.44	17.7	12.7	60	1.013	1.015	1.010	1.007	1.147	0.306	0.288	0.324	0.339	0.021
22-SEP-94 10:09:04 500 PROCESS	11.30	1.41	0.7	3	1.024	178	195	104	2.50	5.11	43	14	116	85	0.41	17.6	11.4	60	1.009	1.005	1.013	1.010	1.147	0.316	0.293	0.320	0.341	0.053
22-SEP-94 10:10:05 500 PROCESS	11.26	1.40	0.7	3	1.020	177	196	103	2.42	5.23	43	15	117	85	0.43	15.1	12.6	60	1.010	1.005	1.013	1.009	1.148	0.311	0.294	0.326	0.330	0.040
22-SEP-94 10:11:04 500 PROCESS	11.29	1.41	0.7	3	1.019	177	196	103	2.42	4.07	42	15	117	85	0.44	12.6	13.9	60	1.012	0.999	1.010	1.015	1.140	0.317	0.287	0.332	0.347	0.032
22-SEP-94 10:12:04 500 PROCESS	11.30	1.41	0.7	4	1.017	176	195	101	2.45	4.67	42	17	118	85	0.45	12.4	15.1	60	1.002	1.007	1.012	1.008	1.139	0.322	0.287	0.337	0.327	0.024
22-SEP-94 10:13:05 500 PROCESS	11.21	1.40	0.7	4	1.015	174	196	100	2.40	4.42	42	18	118	85	0.43	12.6	15.2	60	1.005	0.999	1.005	1.011	1.149	0.319	0.291	0.339	0.342	0.046
22-SEP-94 10:14:04 500 PROCESS	11.20	1.41	0.8	3	1.012	174	195	101	2.43	4.46	42	18	119	85	0.42	14.0	15.1	60	1.004	0.990	1.001	0.999	1.145	0.310	0.291	0.332	0.333	0.022
22-SEP-94 10:15:05 500 PROCESS	11.25	1.40	0.8	3	1.013	174	195	100	2.38	4.39	42	18	119	85	0.40	15.1	15.1	60	1.002	1.009	1.005	1.005	1.144	0.315	0.305	0.333	0.331	0.035
22-SEP-94 10:16:04 500 PROCESS	11.25	1.40	0.8	2	1.027	176	196	102	2.59	4.00	42	16	115	85	0.44	16.3	15.1	60	1.006	1.009	1.012	1.004	1.145	0.322	0.288	0.342	0.342	0.043
22-SEP-94 10:17:05 500 PROCESS	11.20	1.40	0.8	2	1.021	178	196	104	2.41	4.22	42	14	116	85	0.44	17.7	12.5	60	1.010	1.004	1.001	0.999	1.153	0.315	0.297	0.336	0.342	0.040
22-SEP-94 10:18:05 500 PROCESS	11.26	1.40	0.8	3	1.019	178	196	104	2.65	5.15	42	14	117	85	0.42	17.4	11.4	60	0.999	0.990	0.999	0.999	1.149	0.321	0.299	0.343	0.346	0.039
22-SEP-94 10:19:04 500 PROCESS	11.30	1.41	0.8	3	1.018	178	196	105	2.40	4.00	42	14	117	85	0.39	13.0	12.7	60	1.002	1.005	1.004	0.990	1.151	0.322	0.295	0.330	0.342	0.040
22-SEP-94 10:20:04 500 PROCESS	11.29	1.41	0.8	4	1.014	177	196	103	2.46	4.91	42	15	117	86	0.43	12.5	14.0	60	1.002	0.999	1.005	1.006	1.147	0.316	0.300	0.343	0.337	0.038
22-SEP-94 10:21:04 500 PROCESS	11.22	1.40	0.9	4	1.013	175	196	101	2.44	4.40	42	17	118	86	0.43	12.6	15.1	60	0.995	0.998	0.995	1.004	1.151	0.324	0.303	0.344	0.339	0.033
22-SEP-94 10:22:04 500 PROCESS	11.23	1.40	0.9	3	1.011	175	195	101	2.43	4.32	42	18	119	86	0.44	12.6	17.7	60	0.998	0.996	0.999	0.999	1.151	0.326	0.298	0.341	0.344	0.048
22-SEP-94 10:23:04 500 PROCESS	11.20	1.41	0.9	3	1.007	174	196	101	2.40	4.07	42	17	119	86	0.37	12.5	17.0	60	0.995	1.004	0.999	1.002	1.144	0.325	0.302	0.337	0.333	0.034
22-SEP-94 10:24:04 500 PROCESS	11.22	1.40	0.9	2	1.023	175	196	101	2.46	4.94	42	17	116	86	0.47	11.3	20.2	60	1.007	1.004	0.990	1.006	1.151	0.322	0.297	0.336	0.333	0.051
22-SEP-94 10:25:04 500 PROCESS	11.30	1.41	0.9	2	1.025	178	196	104	2.43	5.07	42	14	115	86	0.45	12.5	17.6	60	1.001	1.009	1.004	1.010	1.150	0.320	0.298	0.333	0.340	0.038
22-SEP-94 10:26:04 500 PROCESS	11.32	1.41	0.9	3	1.017	178	196	105	2.46	5.26	42	19	117	87	0.40	13.9	15.2	60	1.001	1.001	1.011	1.005	1.149	0.324	0.299	0.344	0.342	0.031
22-SEP-94 10:27:04 500 PROCESS	11.29	1.41	0.9	3	1.019	178	196	105	2.45	4.82	42	14	117	87	0.40	15.2	11.3	60	1.002	1.011	0.998	1.006	1.140	0.320	0.302	0.347	0.340	0.039
22-SEP-94 10:28:04 500 PROCESS	11.26	1.40	1.0	3	1.018	179	196	105	2.40	5.36	42	14	118	87	0.41	12.9	11.4	60	1.006	1.011	1.001	1.002	1.140	0.324	0.303	0.352	0.346	0.032
22-SEP-94 10:29:04 500 PROCESS	11.25	1.40	1.0	4	1.014	176	196	103	2.46	4.96	42	16	118	87	0.41	12.3	12.6	60	1.002	1.004	1.006	0.999	1.151	0.324	0.293	0.343	0.338	0.046
22-SEP-94 10:30:04 500 PROCESS	11.31	1.41	1.0	4	1.011	175	196	101	2.70	4.44	42	17	119	87	0.44	12.6	14.5	60	1.007	1.005	0.999	0.996	1.151	0.322	0.295	0.340	0.354	0.033
22-SEP-94 10:31:04 500 PROCESS	11.26	1.40	1.0	3	1.008	175	196	101	2.43	4.54	42	17	119	87	0.45	12.5	15.2	60	0.996	0.991	0.999	0.999	1.145	0.324	0.306	0.350	0.336	0.043
22-SEP-94 10:32:04 500 PROCESS	11.26	1.40	1.0	3	1.021	175	196	101	2.40	4.93	42	17	116	87	0.44	12.3	17.6	60	0.995	1.002	0.999	0.999	1.149	0.321	0.297	0.347	0.346	0.037
22-SEP-94 10:33:04 500 PROCESS	11.29	1.41	1.0	2	1.029	176	197	103	2.72	4.85	42	16	114	87	0.44	11.3	17.7	60	1.001	0.990	0.996	1.006	1.144	0.316	0.290	0.343	0.340	0.032
22-SEP-94 10:34:04 500 PROCESS	11.20	1.41	1.1	2	1.010	179	196	105	2.43	4.05	42	14	116	87	0.43	12.6	15.2	60	0.989	1.001	0.999	0.993	1.140	0.327	0.302	0.350	0.355	0.040
22-SEP-94 10:35:04 500 PROCESS	11.19	1.39	1.1	3	1.016	179	196	105	2.39	4.62	42	14	117	88	0.36	14.0	12.6	60	0.999	0.993	0.996	0.990	1.150	0.327	0.310	0.346	0.342	0.030
22-SEP-94 10:36:04 500 PROCESS	11.19	1.40	1.1	3	1.015	179	196	105	2.42	4.96	42	14	118	88	0.39	16.4	11.4	60	0.999	0.994	0.990	0.995	1.154	0.326	0.305	0.347	0.350	0.024
22-SEP-94 10:37:04 500 PROCESS	11.25	1.40	1.2	3	1.014	176	196	102	2.41	4.73	42	16	118	88	0.43	13.9	12.7	60	0.996	0.999	0.993	0.991	1.153	0.328	0.305	0.350	0.352	0.033
22-SEP-94 10:38:04 500 PROCESS	11.20	1.41	1.1	4	1.010	175	197	101	2.40	4.63	41	17	118	88	0.45	12.6	13.9	60	0.993	0.990	0.994	0.996	1.149	0.327	0.300	0.344	0.348	0.040
22-SEP-94 10:39:04 500 PROCESS	11.27	1.40	1.1	3	1.008	175	197	101	2.49	4.49	42	17	119	88	0.43	12.6	15.1	60	0.989	0.991	0.982	0.990	1.102	0.331	0.304	0.352	0.348	0.046
22-SEP-94 10:40:04 500 PROCESS	11.30	1.41	1.2	3	1.011	175	196	101	2.40	4.41	41	17	119	88	0.46	12.6	16.5	60	0.988	0.990	0.989	0.984	1.147	0.330	0.308	0.350	0.340	0.037
22-SEP-94 10:41:04 500 PROCESS	11.20	1.40	1.2	3	1.024	175	197	101	2.40	4.90	41	18	115	88	0.46	12.4	17.7	60	0.990	0.987	0.990	0.999	1.149	0.332	0.310	0.348	0.349	0.040
22-SEP-94 10:42:04 500 PROCESS	11.29	1.41	1.2	2	1.019	178	196	104	2.46	4.53	42	19	116	88	0.42	11.3	10.9	60	0.988	0.980	0.995	0.987	1.151	0.333	0.304	0.344	0.344	0.031
22-SEP-94 10:43:04 500 PROCESS	11.25	1.40	1.2	3	1.017	179	197	105	2.46	5.02	42	14	116	89	0.39	12.6	15.2	60	0.989	0.990	0.987	0.985	1.151	0.336	0.310	0.349	0.350	0.037
22-SEP-94 10:44:04 500 PROCESS	11.29	1.41	1.2	3	1.015	179	197	104	2.49	4.50	42	19	117	89	0.40	13.9	13.9	60	0.984	0.985	0.983	0.989	1.149	0.335	0.313	0.340	0.355	0.029
22-SEP-94 10:45:04 500 PROCESS	11.28	1.41	1.2	3	1.013	179	197	105	2.49	4.59	42	14	118	89	0.39	15.2	10.1	60	0.990	0.985	0.985	0.978	1.150	0.337	0.309	0.350	0.349	0.035
22-SEP-94 10:46:04 500 PROCESS	11.20	1.41	1.2	3	1.011	179	196	106	2.72	4.62	42	19	118	89	0.39	12.3	12.6	60	0.989	0.990	0.982	0.994	1.145	0.342	0.309	0.343	0.352	0.074
22-SEP-94 10:47:04 500 PROCESS	11.21	1.40	1.3	4	1.009	175	196	102	2.70	4.44	41	17	119	89	0.42	12.6	13.0	60	0.989	0.984	0.983	0.980	1.147	0.333	0.314	0.350	0.352	0.029
22-SEP-94 10:48:04 500 PROCESS	11.22	1.40	1.3	3	1.006	175	196	102	2.71	4.57	41	17	119	89	0.43	12.5	15.1	60	0.987	0.990	0.982	0.982	1.155	0.330	0.314	0.350	0.353	0.033
22-SEP-94 10:49:04 500 PROCESS	11.31	1.41	1.3	3	1.020	175	196	101	2.49	5.52	41	18	116	89	0.42	12.4	16.5	60	0.982	0.983	0.985	0.980	1.142	0.347	0.313	0.355	0.354	0.032
22-SEP-94 10:50:04 500 PROCESS	11.28	1.41	1.3	3	1.021	175	196	101	2.71	5.15	41	17	115	89	0.45	12.6	17.5	60	0.984	0.988	0.995	0.982	1.144	0.330	0.308	0.354	0.353	0.037
22-SEP-94 10:51:04 500 PROCESS	11.32	1.41	1.3	2	1.013	178	197	105	2.72	4.92	41	19	117	89	0.43	12.6	16.5	60	0.988	0.989	0.983	0.984	1.140	0.325	0.313	0.346	0.341	0.039
22-SEP-94 10:52:03 500 PROCESS	11.30	1.41	1.3	2	1.012	179	196	105	2.40	4.93	42	19	117	89	0.40	12.6	13.0	60	0.985	0.982	0.983	0.983	1.148	0.328	0.315	0.358	0.352	0.050
22-SEP-94 10:53:04 500 PROCESS	11.32	1.41	1.4	3	1.910	179	197	105	2.46	4.06	42	14	118	90	0.44	15.2	11.4	58	0.979	0.799	0.995	0.792	1.154	0.342	0.314	0.354	0.355	0.035

22-SEP-94 10:56:03 500 PROCESS	11.25	1.40	1.4	4	1.005	175	197	102	2.69	4.38	62	17	119	90	0.42	12.6	15.1	60	0.990	0.988	0.983	0.987	1.150	0.338	0.315	0.354	0.349	0.023
22-SEP-94 10:57:03 500 PROCESS	11.23	1.40	1.4	3	1.009	175	196	101	2.72	4.45	62	17	110	89	0.45	12.5	15.2	60	0.987	0.987	0.982	0.980	1.149	0.331	0.310	0.352	0.349	0.035
22-SEP-94 10:58:04 500 PROCESS	11.23	1.40	1.4	3	1.021	175	197	101	2.69	4.84	62	17	115	90	0.44	12.5	17.7	60	0.990	0.993	0.980	0.983	1.140	0.331	0.311	0.349	0.341	0.016
22-SEP-94 10:59:04 500 PROCESS	11.28	1.41	1.4	3	1.012	175	197	101	2.75	4.46	62	17	116	90	0.46	12.6	17.7	60	0.988	0.990	0.985	0.984	1.147	0.333	0.313	0.357	0.352	0.018
22-SEP-94 11:00:04 500 PROCESS	11.30	1.41	1.5	2	1.012	179	196	105	2.68	4.38	62	14	117	90	0.42	12.6	17.7	60	0.988	0.985	0.989	0.983	1.154	0.332	0.321	0.355	0.350	0.022
22-SEP-94 11:01:03 500 PROCESS	11.22	1.40	1.5	2	1.013	179	196	105	2.63	4.38	62	14	118	91	0.44	13.9	15.2	60	0.990	0.994	0.983	0.985	1.165	0.338	0.316	0.349	0.350	0.042
22-SEP-94 11:02:04 500 PROCESS	11.23	1.40	1.5	3	1.008	179	197	105	2.72	4.77	62	14	110	90	0.42	15.1	12.4	60	0.980	0.982	0.984	0.979	1.140	0.335	0.306	0.353	0.303	0.059
22-SEP-94 11:03:03 500 PROCESS	11.29	1.41	1.5	3	1.006	179	197	106	2.71	5.16	62	14	118	90	0.42	13.9	11.5	60	0.979	0.982	0.985	0.982	1.150	0.342	0.313	0.349	0.357	0.039
22-SEP-94 11:04:03 500 PROCESS	11.23	1.40	1.5	3	1.006	179	197	105	2.72	5.03	62	14	119	91	0.45	11.3	12.6	60	0.988	0.987	0.989	0.983	1.140	0.344	0.308	0.354	0.346	0.042
22-SEP-94 11:05:03 500 PROCESS	11.23	1.40	1.5	4	1.007	178	197	103	2.66	4.82	62	15	119	91	0.44	11.3	15.2	60	0.984	0.984	0.980	0.984	1.147	0.349	0.315	0.353	0.349	0.011
22-SEP-94 11:06:03 500 PROCESS	11.32	1.41	1.6	4	1.012	175	196	103	2.71	5.04	62	17	118	91	0.48	12.5	15.1	60	0.976	0.983	0.980	0.980	1.140	0.341	0.319	0.357	0.347	0.012
22-SEP-94 11:07:04 500 PROCESS	11.26	1.40	1.6	3	1.020	175	197	102	2.78	4.83	62	17	115	90	0.46	13.9	15.1	60	0.980	0.987	0.982	0.979	1.136	0.330	0.317	0.349	0.348	0.029
22-SEP-94 11:08:03 500 PROCESS	11.30	1.41	1.6	3	1.013	176	196	101	2.71	4.79	62	17	116	91	0.46	15.0	15.2	60	0.974	0.980	0.987	0.980	1.149	0.330	0.316	0.361	0.355	0.040
22-SEP-94 11:09:03 500 PROCESS	11.28	1.41	1.6	2	1.010	177	197	103	2.67	4.69	62	16	117	91	0.44	16.4	15.2	60	0.984	0.982	0.980	0.980	1.144	0.336	0.319	0.357	0.358	0.049
22-SEP-94 11:10:03 500 PROCESS	11.26	1.40	1.6	2	1.009	180	197	105	2.65	4.73	62	14	118	90	0.41	17.5	12.6	60	0.979	0.980	0.978	0.979	1.140	0.320	0.324	0.352	0.353	0.056
22-SEP-94 11:11:03 500 PROCESS	11.28	1.41	1.6	3	1.010	179	197	105	2.71	4.76	62	14	118	91	0.47	17.7	11.4	60	0.983	0.977	0.977	0.984	1.144	0.331	0.320	0.350	0.354	0.037
22-SEP-94 11:12:03 500 PROCESS	11.30	1.41	1.6	3	1.007	179	197	105	2.73	4.96	62	14	110	91	0.43	15.2	12.6	60	0.982	0.987	0.976	0.984	1.142	0.348	0.314	0.355	0.348	0.033
22-SEP-94 11:13:03 500 PROCESS	11.33	1.41	1.7	3	1.004	179	197	105	2.68	4.39	62	14	110	91	0.43	12.6	14.0	60	0.980	0.987	0.983	0.982	1.149	0.325	0.321	0.350	0.357	0.033
22-SEP-94 11:14:03 500 PROCESS	11.29	1.41	1.7	3	1.006	179	196	106	2.68	4.02	62	14	119	91	0.44	11.3	13.9	60	0.979	0.985	0.980	0.976	1.148	0.328	0.320	0.355	0.354	0.038
22-SEP-94 11:15:03 500 PROCESS	11.19	1.39	1.7	4	1.002	176	197	103	2.68	4.50	62	17	119	92	0.39	12.6	13.9	60	0.984	0.985	0.979	0.980	1.140	0.330	0.320	0.358	0.352	0.051
22-SEP-94 11:16:03 500 PROCESS	11.31	1.41	1.7	3	1.017	175	197	102	2.75	4.64	62	17	115	91	0.42	13.9	13.9	60	0.984	0.983	0.978	0.978	1.153	0.337	0.320	0.350	0.352	0.046
22-SEP-94 11:17:03 500 PROCESS	11.26	1.40	1.7	3	1.019	175	197	102	2.72	4.93	62	17	114	92	0.46	15.1	13.0	60	0.982	0.979	0.980	0.974	1.151	0.333	0.328	0.357	0.350	0.055
22-SEP-94 11:18:03 500 PROCESS	11.25	1.40	1.7	2	1.011	176	197	102	2.72	4.81	62	17	117	92	0.44	16.3	13.0	60	0.978	0.978	0.978	0.980	1.140	0.333	0.322	0.358	0.348	0.042
22-SEP-94 11:19:03 500 PROCESS	11.29	1.41	1.8	2	1.010	179	197	105	2.68	4.42	62	14	117	92	0.41	17.7	11.3	60	0.980	0.980	0.984	0.978	1.140	0.341	0.325	0.359	0.354	0.053
22-SEP-94 11:20:03 500 PROCESS	11.23	1.40	1.8	2	1.007	179	197	106	2.71	4.99	62	14	118	92	0.42	15.1	12.5	60	0.984	0.985	0.978	0.971	1.144	0.331	0.313	0.354	0.349	0.002
22-SEP-94 11:21:03 500 PROCESS	11.21	1.40	1.8	3	1.005	179	196	104	2.71	4.33	62	14	118	92	0.46	13.8	13.8	60	0.985	0.982	0.971	0.982	1.147	0.339	0.319	0.371	0.333	0.062
22-SEP-94 11:22:03 500 PROCESS	11.19	1.39	1.8	3	1.004	179	197	106	2.76	4.64	62	14	119	92	0.42	10.0	15.1	60	0.982	0.974	0.979	0.974	1.144	0.333	0.320	0.355	0.349	0.034
22-SEP-94 11:23:03 500 PROCESS	11.24	1.40	1.8	3	1.004	179	197	106	2.74	4.35	62	14	119	92	0.44	12.6	12.7	60	0.983	0.979	0.977	0.979	1.150	0.322	0.326	0.363	0.355	0.029
22-SEP-94 11:24:03 500 PROCESS	11.27	1.41	1.8	3	1.002	179	197	106	2.75	4.22	62	14	119	92	0.41	14.4	11.3	60	0.989	0.979	0.976	0.973	1.151	0.338	0.324	0.361	0.343	0.053
22-SEP-94 11:25:03 500 PROCESS	11.28	1.41	1.6	4	1.012	177	197	103	2.59	5.25	62	16	118	92	0.44	15.1	12.7	60	0.979	0.978	0.975	0.982	1.148	0.333	0.327	0.350	0.348	0.037
22-SEP-94 11:26:03 500 PROCESS	11.25	1.40	1.9	3	1.019	175	197	102	2.72	5.00	62	17	115	93	0.43	15.0	13.9	60	0.985	0.980	0.976	0.977	1.147	0.337	0.324	0.348	0.350	0.038
22-SEP-94 11:27:03 500 PROCESS	11.30	1.41	1.9	3	1.012	176	197	102	2.74	5.08	62	17	116	92	0.44	15.1	15.2	60	0.970	0.979	0.973	0.984	1.154	0.339	0.325	0.340	0.350	0.033
22-SEP-94 11:28:03 500 PROCESS	11.21	1.40	1.9	3	1.007	176	197	102	2.71	5.18	61	17	117	92	0.45	15.1	16.5	60	0.976	0.978	0.973	0.974	1.140	0.333	0.330	0.357	0.355	0.012
22-SEP-94 11:29:03 500 PROCESS	11.25	1.40	1.9	2	1.006	178	197	105	2.71	4.35	61	15	118	92	0.41	15.1	17.7	60	0.983	0.982	0.978	0.978	1.149	0.344	0.322	0.360	0.349	0.039
22-SEP-94 11:30:03 500 PROCESS	11.29	1.41	1.9	2	1.004	179	197	106	2.73	4.92	61	14	118	93	0.40	12.6	18.9	60	0.976	0.972	0.971	0.973	1.153	0.332	0.333	0.350	0.353	0.020
22-SEP-94 11:31:03 500 PROCESS	11.28	1.41	1.9	3	1.003	179	197	105	2.77	4.96	60	14	119	93	0.43	12.5	17.8	60	0.978	0.980	0.974	0.976	1.150	0.347	0.325	0.361	0.349	0.039
22-SEP-94 11:32:03 500 PROCESS	11.23	1.40	1.9	3	1.003	178	197	105	2.74	4.99	60	14	119	93	0.41	14.0	15.1	60	0.974	0.978	0.971	0.972	1.145	0.339	0.319	0.360	0.359	0.027
22-SEP-94 11:33:03 500 PROCESS	11.19	1.39	2.0	3	1.000	178	197	105	2.74	4.60	61	14	119	93	0.41	15.1	12.5	60	0.973	0.977	0.974	0.975	1.150	0.344	0.321	0.368	0.347	0.044
22-SEP-94 11:34:03 500 PROCESS	11.32	1.41	2.0	3	1.012	178	197	105	2.72	5.03	60	15	118	93	0.40	15.0	11.4	60	0.979	0.977	0.973	0.971	1.153	0.350	0.322	0.370	0.355	0.045
22-SEP-94 11:35:03 500 PROCESS	11.27	1.41	2.0	4	1.010	176	197	103	2.79	5.21	60	17	115	93	0.40	15.1	12.7	60	0.979	0.980	0.980	0.977	1.145	0.346	0.324	0.364	0.354	0.044
22-SEP-94 11:36:02 500 PROCESS	11.29	1.41	2.0	3	1.011	175	197	102	2.73	4.90	60	17	116	93	0.44	15.1	14.0	60	0.982	0.977	0.982	0.973	1.140	0.337	0.327	0.363	0.355	0.032
22-SEP-94 11:37:03 500 PROCESS	11.29	1.41	2.0	3	1.007	175	197	102	2.75	4.89	60	17	118	93	0.44	15.1	15.0	60	0.980	0.972	0.969	0.973	1.154	0.341	0.324	0.363	0.344	0.048
22-SEP-94 11:38:03 500 PROCESS	11.33	1.41	2.1	3	1.005	175	197	102	2.74	4.82	60	17	118	93	0.42	15.1	16.4	60	0.976	0.972	0.974	0.971	1.145	0.347	0.313	0.365	0.350	0.042
22-SEP-94 11:39:03 500 PROCESS	11.25	1.40	2.1	2	1.004	178	196	105	2.77	4.71	60	15	119	94	0.40	12.4	17.6	60	0.979	0.978	0.969	0.980	1.140	0.346	0.317	0.366	0.350	0.016
22-SEP-94 11:40:03 500 PROCESS	11.27	1.41	2.1	2	1.002	179	197	106	2.74	4.95	60	14	119	93	0.44	12.5	17.7	60	0.982	0.978	0.967	0.978	1.149	0.344	0.326	0.365	0.339	0.016
22-SEP-94 11:41:02 500 PROCESS	11.27	1.40	2.1	3	1.001	179	197	105	2.74	4.40	60	14	119	93	0.44	12.6	15.1	60	0.980	0.977	0.972	0.974	1.150	0.339	0.330	0.376	0.340	0.026
22-SEP-94 11:42:03 500 PROCESS	11.32	1.41	2.1	3	1.012	179	197	106	2.74	4.60	60	14	117	93	0.39	15.0	12.7	60	0.976	0.983	0.969	0.971	1.145	0.344	0.326	0.379	0.354	0.033
22-SEP-94 11:43:02 500 PROCESS	11.25	1.40	2.1	3	1.019	179	197	105	2.77	5.03	60	14	114	93	0.41	15.1	11.4	60	0.977	0.979	0.972	0.976	1.143	0.350	0.333	0.365	0.358	0.024
22-SEP-94 11:44:02 500 PROCESS	11.27	1.40	2.1	3	1.011	179	197	106	2.71	4.95	60	14	116	94	0.42	12.5	12.6	60	0.974	0.973	0.968	0.972	1.145	0.352	0.333	0.372	0.355	0.042
22-SEP-94 11:45:03 500 PROCESS	11.16	1.39	2.2	3	1.007	179	197	105	2.75	4.81	60	14	117	93	0.45	11.4	16.5	59	0.960	0.973	0.967	0.974	1.139	0.347	0.325	0.364	0.358	0.030
22-SEP-94 11:46:03 500 PROCESS	11.26	1.40	2.2	4	1.005	177	197	104	2.78	4.65	60	16	118	94	0.42	12.6	15.2	60	0.977	0.977	0.974	0.969	1.154	0.347	0.325	0.372	0.353	0.042
22-SEP-94 11:47:03 500 PROCESS	11.27	1.41	2.2	3	1.000	176	197	103	2.76	4.69	60	17	119	93	0.40	13.9	15.1	60	0.976	0.974	0.971	0.967	1.145	0.346	0.328	0.364	0.349	0.049
22-SEP-94 11:48:02 500 PROCESS	11.24	1.40	2.2	3	1.000	176	197	102	2.71	4.60	60	17	119	93	0.41	15.1	15.2	60	0.972	0.977	0.965	0.976	1.144	0.353	0.326	0.372	0.354	0.051
22-SEP-94 11:49:02 500 PROCESS	11.24	1.40	2.2	3	1.013	175	197	102	2.73	4.92	60	17	116	93	0.44	16.4	15.2	60	0.970	0.973	0.969	0.972	1.149	0.346	0.325	0.369	0.354	0.040
22-SEP-94 11:50:03 500 PROCESS	11.31	1.41	2.2	2	1.019	178	197	104	2.75	4.67	60	15	114	93	0.43	17.6	13.9	60	0.973	0.980	0.969	0.968	1.153	0.349	0.332	0.370	0.355	0.042
22-SEP-94 11:51:02 500 PROCESS	11.25	1.40	2.3	2	1.011	180	197	104	2.79	4.50	60	14	114	94	0.35	18.0	11.4	60	0.973	0.977	0.968	0.972	1.154	0.344	0.337	0.370	0.355	0.029
22-SEP-94 11:52:02 500 PROCESS	11.28	1.41	2.3	3	1.008	179	197	106	2.72	4.06	59	13	117	93	0.42	17.6	12.5	60	0.970	0.980	0.969	0.967	1.137	0.357	0.333	0.370	0.360	0.067
22-SEP-94 11:53:02 500 PROCESS	11.31	1.41	2.3	3	1.006	180	197	106	2.76	5.00	60	14	117	93	0.37	15.1	13.9	60	0.974	0.974	0.971	0.968	1.140	0.354	0.325	0.350	0.353	0.049
22-SEP-94 11:54:02 500 PROCESS	11.28	1.40	2.3	3	1.004	179	197	105	2.74	4.88	60	14	118	93	0.40	12.6	15.2	60	0.974	0.974	0.971	0.972	1.143	0.353	0.322	0.372	0.354	0.027
22-SEP-94 11:55:02 500 PROCESS	11.26	1.40	2.3	3	1.003	179	197	104	2.75	4.81	60	14	119	94	0.45	11.2	15.2	60	0.973	0.968	0.971	0.971	1.147	0.355	0.315	0.359	0.350	0.030
22-SEP-94 11:56:02 500 PROCESS	11.23	1.40	2.3	4	1.002	178	197	104	2.77	4.72	59	14	119	94	0.36	12.6	12.6	60	0.972	0.976	0.968	0.967	1.144	0.357	0.320	0.366	0.350	0.039
22-SEP-94 11:57:02 500 PROCESS	11.28	1.40	2.3	4	1.799	176	197	103	2.78	4.40	59	17	119	93	0.41	13.9	12.6	60	0.973	0.966	0.968	0.969	1.149	0.348	0.325	0.364	0.348	0.032
22-SEP-94 11:58:02 500 PROCESS	11.29	1.41	2.4	3	1.014	175	196	102	2.75	4.68	60	17	116	94	0.45	15.2	12.6	60	0.978	0.977	0.959	0.974	1.147	0.357	0.320	0.370	0.347	0.037
22-SEP-94 11:59:02 500 PROCESS	11.28	1.41	2.4	3	1.016	175	197	102	2.91	4.81	59	17	114	94	[illegible]	[illegible]	12.6	59	0.979	0.974	0.978	0.974	1.149	0.359	0.320	0.372	0.359	0.039

22-SEP-94 12:02:02 500 PROCESS	11.15	1.39	2.4	2	1.004	179	197	105	2.73	4.47	60	14	118	94	0.47	15.0	12.6	60	0.972	0.976	0.973	0.974	1.130	0.353	0.350	0.365	0.357	0.037
22-SEP-94 12:03:02 500 PROCESS	11.26	1.40	2.4	3	1.002	179	197	106	2.71	4.38	60	14	118	94	0.38	12.6	13.8	60	0.973	0.974	0.973	0.967	1.145	0.349	0.332	0.374	0.357	0.028
22-SEP-94 12:04:02 500 PROCESS	11.24	1.40	2.5	3	1.001	180	197	106	2.74	4.38	59	14	119	94	0.47	11.2	15.2	60	0.969	0.967	0.972	0.969	1.140	0.346	0.327	0.369	0.341	0.077
22-SEP-94 12:05:02 500 PROCESS	11.23	1.40	2.5	3	1.001	179	197	106	2.72	4.11	59	14	119	94	0.46	12.5	12.6	60	0.974	0.977	0.968	0.972	1.140	0.353	0.331	0.372	0.340	0.037
22-SEP-94 12:06:02 500 PROCESS	11.22	1.40	2.5	3	1.001	179	197	105	2.74	4.15	59	14	119	94	0.46	13.9	11.3	60	0.973	0.973	0.972	0.969	1.137	0.349	0.331	0.371	0.355	0.004
22-SEP-94 12:07:02 500 PROCESS	11.28	1.41	2.5	3	1.013	179	197	106	2.74	4.08	60	14	116	94	0.41	15.1	11.4	60	0.976	0.974	0.973	0.973	1.139	0.353	0.327	0.376	0.350	0.045
22-SEP-94 12:08:02 500 PROCESS	11.28	1.41	2.5	4	1.015	178	197	106	2.79	5.12	59	15	116	94	0.42	13.9	13.8	60	0.972	0.962	0.967	0.973	1.149	0.350	0.326	0.341	0.357	0.063
22-SEP-94 12:09:02 500 PROCESS	11.23	1.40	2.5	4	1.004	176	197	103	2.76	4.57	59	17	117	94	0.42	13.9	15.0	60	0.977	0.969	0.972	0.971	1.142	0.359	0.342	0.372	0.350	0.028
22-SEP-94 12:10:02 500 PROCESS	11.27	1.40	2.5	3	1.003	176	197	102	2.80	4.41	60	17	118	94	0.43	13.8	15.1	60	0.969	0.967	0.969	0.965	1.145	0.354	0.331	0.370	0.353	0.044
22-SEP-94 12:11:02 500 PROCESS	11.27	1.40	2.4	3	1.004	175	197	102	2.75	4.38	59	17	119	94	0.43	14.0	17.7	60	0.976	0.965	0.969	0.968	1.150	0.353	0.333	0.370	0.360	0.043
22-SEP-94 12:12:02 500 PROCESS	11.21	1.40	2.6	2	1.001	177	197	104	2.77	4.14	60	16	119	95	0.42	12.4	17.7	60	0.969	0.968	0.968	0.972	1.150	0.353	0.325	0.369	0.360	0.034
22-SEP-94 12:13:02 500 PROCESS	11.25	1.40	2.6	2	1.003	179	197	105	2.77	4.78	59	14	119	94	0.40	12.6	17.7	60	0.973	0.967	0.969	0.971	1.143	0.361	0.342	0.376	0.360	0.045
22-SEP-94 12:14:02 500 PROCESS	11.26	1.40	2.6	2	1.015	179	197	106	2.78	4.80	59	14	115	95	0.44	12.6	16.4	60	0.969	0.977	0.971	0.971	1.144	0.348	0.324	0.365	0.357	0.046
22-SEP-94 12:15:02 500 PROCESS	11.29	1.41	2.6	3	1.000	180	197	106	2.82	4.50	59	14	117	95	0.40	13.9	13.8	60	0.966	0.963	0.962	0.963	1.145	0.352	0.332	0.363	0.360	0.042
22-SEP-94 12:16:02 500 PROCESS	11.21	1.40	2.6	3	1.005	179	197	106	2.78	4.50	59	13	117	95	0.42	15.1	11.3	60	0.965	0.963	0.965	0.973	1.150	0.357	0.328	0.360	0.361	0.043
22-SEP-94 12:17:02 500 PROCESS	11.19	1.39	2.7	3	1.001	178	197	106	2.82	4.93	59	14	118	95	0.43	14.0	11.4	60	0.965	0.977	0.966	0.967	1.144	0.354	0.332	0.363	0.346	0.023
22-SEP-94 12:18:02 500 PROCESS	11.22	1.40	2.7	3	1.002	179	197	106	2.78	4.73	59	14	118	95	0.43	12.5	13.9	60	0.967	0.977	0.969	0.969	1.140	0.340	0.326	0.360	0.357	0.030
22-SEP-94 12:19:02 500 PROCESS	11.24	1.40	2.7	3	1.001	180	197	106	2.79	4.57	59	14	119	95	0.44	11.4	15.2	60	0.972	0.971	0.960	0.972	1.140	0.357	0.331	0.371	0.353	0.021
22-SEP-94 12:20:02 500 PROCESS	11.20	1.41	2.7	4	1.790	177	197	104	2.80	4.40	59	15	119	94	0.43	12.5	15.2	60	0.966	0.965	0.963	0.971	1.145	0.359	0.328	0.374	0.357	0.039
22-SEP-94 12:21:02 500 PROCESS	11.27	1.40	2.7	3	1.006	175	197	103	2.85	4.45	59	17	118	95	0.42	13.9	15.2	60	0.973	0.968	0.973	0.968	1.144	0.349	0.336	0.372	0.341	0.055
22-SEP-94 12:22:02 500 PROCESS	11.28	1.41	2.7	3	1.015	175	197	102	2.83	4.59	59	17	115	95	0.43	15.0	15.0	60	0.967	0.967	0.967	0.971	1.140	0.357	0.339	0.366	0.357	0.035
22-SEP-94 12:23:02 500 PROCESS	11.16	1.39	2.7	3	1.005	176	197	102	2.84	4.45	59	17	116	95	0.46	16.4	15.2	60	0.971	0.971	0.971	0.973	1.145	0.354	0.331	0.366	0.357	0.034
22-SEP-94 12:24:02 500 PROCESS	11.23	1.40	2.8	2	1.003	178	197	105	2.77	4.43	59	15	117	95	0.40	17.5	14.0	60	0.967	0.960	0.972	0.976	1.144	0.355	0.330	0.371	0.363	0.037
22-SEP-94 12:25:02 500 PROCESS	11.27	1.41	2.8	2	1.002	179	197	106	2.80	4.15	59	14	118	95	0.45	18.0	11.3	60	0.967	0.969	0.963	0.966	1.129	0.353	0.335	0.370	0.366	0.045
22-SEP-94 12:26:02 500 PROCESS	11.31	1.41	2.8	3	1.002	176	197	103	2.82	4.93	59	17	118	95	0.39	16.4	12.6	60	0.972	0.971	0.968	0.967	1.138	0.354	0.338	0.370	0.355	0.046
22-SEP-94 12:27:02 500 PROCESS	11.31	1.41	2.8	3	1.000	176	197	103	2.78	4.71	59	17	119	95	0.40	14.0	13.8	60	0.972	0.976	0.968	0.973	1.143	0.352	0.337	0.379	0.365	0.039
22-SEP-94 12:28:01 500 PROCESS	11.26	1.40	2.8	3	1.798	176	197	103	2.77	4.60	59	17	119	95	0.44	12.6	15.1	60	0.968	0.974	0.974	0.961	1.139	0.353	0.333	0.369	0.368	0.053
22-SEP-94 12:29:02 500 PROCESS	11.25	1.40	2.8	3	1.798	176	197	103	2.07	4.34	59	17	119	95	0.41	11.3	15.1	60	0.960	0.968	0.967	0.963	1.130	0.353	0.325	0.376	0.365	0.026
22-SEP-94 12:30:02 500 PROCESS	11.29	1.41	2.9	3	1.796	178	196	103	2.02	4.10	59	17	119	95	0.45	12.6	12.6	60	0.973	0.976	0.976	0.971	1.142	0.353	0.328	0.370	0.360	0.040
22-SEP-94 12:31:02 500 PROCESS	11.25	1.40	2.9	3	1.011	176	197	103	2.04	4.38	59	17	115	95	0.43	13.9	11.5	60	0.977	0.973	0.976	0.966	1.147	0.355	0.319	0.370	0.360	0.021
22-SEP-94 12:32:02 500 PROCESS	11.26	1.40	2.9	4	1.007	176	197	103	2.80	4.51	59	17	116	95	0.42	15.0	12.7	60	0.970	0.974	0.974	0.968	1.149	0.349	0.326	0.374	0.357	0.060
22-SEP-94 12:33:01 500 PROCESS	11.28	1.41	2.9	4	1.004	175	197	102	2.05	4.60	59	17	117	96	0.44	15.1	13.0	60	0.969	0.963	0.972	0.966	1.144	0.354	0.335	0.370	0.352	0.038
22-SEP-94 12:34:02 500 PROCESS	11.31	1.41	2.9	3	1.001	175	197	103	2.02	4.40	59	17	110	95	0.40	15.0	15.1	60	0.966	0.973	0.967	0.966	1.142	0.359	0.327	0.377	0.350	0.035
22-SEP-94 12:35:01 500 PROCESS	11.25	1.40	2.9	3	1.799	176	197	102	2.04	4.17	59	17	119	95	0.40	15.1	16.4	60	0.965	0.970	0.965	0.971	1.147	0.363	0.320	0.384	0.344	0.053
22-SEP-94 12:36:01 500 PROCESS	11.20	1.41	2.9	2	1.799	177	197	103	2.78	4.25	59	16	119	95	0.44	15.2	17.0	60	0.971	0.966	0.971	0.969	1.143	0.350	0.330	0.382	0.344	0.024
22-SEP-94 12:37:02 500 PROCESS	11.22	1.40	2.9	2	1.796	179	197	105	2.06	4.60	59	14	119	96	0.40	12.6	10.9	60	0.971	0.974	0.966	0.969	1.153	0.357	0.337	0.377	0.360	0.027
22-SEP-94 12:38:01 500 PROCESS	11.23	1.40	3.0	2	1.012	179	197	104	2.01	5.07	60	14	115	96	0.39	12.6	19.0	60	0.973	0.971	0.974	0.969	1.145	0.357	0.331	0.382	0.357	0.030
22-SEP-94 12:39:01 500 PROCESS	11.26	1.40	3.0	3	1.011	179	197	106	2.02	4.07	59	14	115	96	0.42	12.5	16.4	60	0.972	0.968	0.968	0.969	1.132	0.355	0.324	0.376	0.353	0.020
22-SEP-94 12:40:01 500 PROCESS	11.25	1.40	3.0	3	1.007	179	197	106	2.02	4.08	59	14	117	96	0.39	14.7	13.0	60	0.973	0.969	0.967	0.967	1.130	0.352	0.320	0.374	0.355	0.021
22-SEP-94 12:41:01 500 PROCESS	11.30	1.41	3.0	3	1.004	179	197	106	2.01	4.33	60	14	118	96	0.37	15.1	11.9	60	0.976	0.973	0.969	0.968	1.133	0.357	0.337	0.381	0.359	0.042
22-SEP-94 12:42:01 500 PROCESS	11.24	1.40	3.0	3	1.002	179	197	106	2.79	4.63	59	14	118	96	0.44	15.2	11.6	60	0.968	0.971	0.971	0.973	1.140	0.358	0.328	0.370	0.340	0.030
22-SEP-94 12:43:01 500 PROCESS	11.26	1.40	3.1	3	1.002	179	197	106	2.02	4.43	60	14	118	95	0.41	12.6	12.7	60	0.967	0.968	0.963	0.974	1.140	0.359	0.326	0.376	0.359	0.034
22-SEP-94 12:44:01 500 PROCESS	11.33	1.41	3.1	4	1.798	178	197	105	2.04	4.43	60	15	119	96	0.38	11.3	13.0	60	0.966	0.968	0.967	0.966	1.140	0.360	0.326	0.370	0.360	0.046
22-SEP-94 12:45:01 500 PROCESS	11.20	1.41	3.1	4	1.796	176	196	103	2.03	4.20	60	17	119	95	0.44	11.4	15.1	60	0.962	0.973	0.966	0.972	1.144	0.353	0.322	0.371	0.350	0.020
22-SEP-94 12:46:01 500 PROCESS	11.24	1.40	3.1	3	1.011	175	197	102	2.06	4.73	60	18	116	96	0.43	11.4	17.7	60	0.974	0.976	0.972	0.973	1.134	0.352	0.325	0.374	0.359	0.045
22-SEP-94 12:47:01 500 PROCESS	11.29	1.41	3.1	3	1.013	175	197	102	2.07	4.03	60	17	114	96	0.45	11.3	17.7	60	0.969	0.976	0.969	0.969	1.149	0.350	0.327	0.375	0.353	0.031
22-SEP-94 12:48:01 500 PROCESS	11.28	1.41	3.1	2	1.004	177	197	103	2.05	4.40	60	16	117	96	0.42	11.3	18.7	60	0.973	0.971	0.966	0.969	1.144	0.346	0.325	0.377	0.365	0.034
22-SEP-94 12:49:01 500 PROCESS	11.24	1.40	3.1	2	1.004	179	197	105	2.00	4.40	60	14	117	96	0.38	12.6	14.3	60	0.980	0.960	0.971	0.971	1.149	0.347	0.324	0.366	0.366	0.039
22-SEP-94 12:50:01 500 PROCESS	11.14	1.39	3.2	2	1.000	179	197	106	2.04	4.54	60	14	110	96	0.39	13.9	14.0	60	0.972	0.977	0.960	0.972	1.143	0.354	0.320	0.372	0.365	0.043
22-SEP-94 12:51:01 500 PROCESS	11.30	1.41	3.2	2	1.001	179	197	106	2.06	4.40	60	14	110	96	0.42	15.2	12.7	60	0.972	0.966	0.971	0.963	1.134	0.359	0.324	0.363	0.354	0.026
22-SEP-94 12:52:01 500 PROCESS	11.10	1.39	3.2	3	1.799	179	197	106	2.04	4.30	60	14	119	96	0.41	15.1	11.9	60	0.977	0.971	0.971	0.962	1.145	0.365	0.326	0.371	0.359	0.040
22-SEP-94 12:53:01 500 PROCESS	11.30	1.41	3.2	3	1.799	179	197	106	2.05	4.26	60	14	119	96	0.41	12.5	12.4	60	0.971	0.960	0.962	0.965	1.149	0.355	0.319	0.360	0.366	0.037
22-SEP-94 12:54:01 500 PROCESS	11.26	1.40	3.2	3	1.796	179	197	106	2.05	3.70	60	14	119	96	0.40	10.1	13.9	60	0.963	0.965	0.967	0.960	1.144	0.361	0.322	0.379	0.350	0.030
22-SEP-94 12:55:01 500 PROCESS	11.25	1.40	3.2	3	1.012	179	197	106	2.90	4.97	60	14	115	96	0.43	12.6	15.1	60	0.982	0.980	0.989	0.983	1.142	0.383	0.352	0.407	0.385	0.043
22-SEP-94 12:56:01 500 PROCESS	11.29	1.41	3.3	3	1.009	180	197	106	2.03	4.73	60	14	115	96	0.43	14.0	12.7	60	0.945	0.949	0.944	0.947	1.144	0.372	0.327	0.385	0.375	0.040
22-SEP-94 12:57:01 500 PROCESS	11.21	1.40	3.3	4	1.005	178	197	105	2.00	4.31	60	15	117	96	0.37	15.1	11.4	60	0.944	0.932	0.937	0.946	1.144	0.354	0.322	0.370	0.354	0.055
22-SEP-94 12:58:01 500 PROCESS	11.20	1.41	3.3	4	1.000	176	197	103	2.03	4.32	60	17	118	96	0.39	15.1	11.4	60	0.943	0.937	0.937	0.943	1.144	0.358	0.319	0.369	0.350	0.072
22-SEP-94 12:59:01 500 PROCESS	11.20	1.40	3.3	3	1.790	175	197	103	2.01	4.13	60	17	118	96	0.42	17.5	11.4	60	0.977	0.979	0.971	0.967	1.130	0.399	0.353	0.415	0.394	0.065
22-SEP-94 13:00:01 500 PROCESS	11.26	1.40	3.3	3	1.790	175	197	102	2.04	4.17	60	18	119	94	0.44	17.6	11.4	60	1.011	1.016	1.023	1.013	1.139	0.368	0.327	0.372	0.372	0.049
22-SEP-94 13:01:01 500 PROCESS	11.26	1.40	3.3	2	1.003	177	196	104	2.01	4.21	60	16	118	96	0.41	18.9	11.4	60	1.018	1.028	1.020	1.013	1.133	0.366	0.325	0.371	0.366	0.048
22-SEP-94 13:02:01 500 PROCESS	11.22	1.40	3.3	2	1.013	179	197	105	2.00	5.09	60	14	115	96	0.39	16.4	12.7	60	1.017	1.018	1.020	1.016	1.137	0.358	0.332	0.379	0.365	0.032
22-SEP-94 13:03:01 500 PROCESS	11.27	1.40	3.4	2	1.007	179	197	105	2.00	4.72	60	14	116	96	0.43	13.9	14.0	60	1.020	1.010	1.020	1.014	1.139	0.364	0.321	0.371	0.361	0.035
22-SEP-94 13:04:01 500 PROCESS	11.20	1.40	3.4	2	1.002	180	197	104	2.06	4.50	60	14	117	96	0.43	12.6	15.1	60	1.020	1.018	1.023	1.016	1.140	0.360	0.325	0.379	0.365	0.018
22-SEP-94 13:05:[illegible] 500 PROCESS	11.15	1.39	1.4	3	[illegible]	179	197	195	2.99	4.90	60	14	117	[illegible]	[illegible]	[illegible]	15.1	60	1.019	1.015	1.019	[illegible]	[illegible]	[illegible]	[illegible]	0.115	0.347	0.071

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22-SEP-94 13:08:01 500 PROCESS	11.25	1.40	3.4	3	1.798	179	197	106	2.79	4.79	60	14	119	96	0.40	15.1	12.6	60	1.015	1.021	1.012	1.021	1.144	0.350	0.321	0.377	0.369	0.037
22-SEP-94 13:09:01 500 PROCESS	11.22	1.40	3.5	3	1.797	180	197	107	2.05	4.84	59	14	119	96	0.45	12.5	14.0	60	1.017	1.016	1.026	1.016	1.147	0.365	0.330	0.379	0.350	0.046
22-SEP-94 13:10:01 500 PROCESS	11.26	1.40	3.5	4	1.798	178	197	105	2.00	4.34	60	15	119	97	0.40	12.6	15.2	60	1.013	1.011	1.021	1.012	1.142	0.359	0.324	0.379	0.364	0.040

DATE: 22-SEP-94 LFSPE OXYGEN GENERATION TIME: 13:10:43
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.17 LB/DAY HYDROGEN PRODUCTION RATE: 1.39 LB/DAY
OPERATING TIME: 3.5 HOURS LAST 606 LEVEL: 4

CG746-1 -2 % LEL	H2V740-1 1.012 V	VLT906-1 1.790 V
CG746-2 -0 % LEL	H2V740-2 1.017 V	VLT906-2 1.785 V
CG746-3 0 % LEL	H2V740-3 1.021 V	VLT906-3 1.772 V
CG746-4 -1 % LEL	H2V740-4 1.021 V	VLT906-4 1.778 V
CS755 0.0 UMHO/CM	H2V900 1.144 V	VLT906-5 1.770 V
I766 60 AMPS	H2PAVG 1.003 V	VLT906-6 1.790 V
		VLT906-7 1.020 V
	I740-1 0.364 A	VLT906-8 1.020 V
	I740-2 0.320 A	VLT906-9 1.795 V
	I740-3 0.377 A	VLT906-10 1.792 V
	I740-4 0.364 A	VLT906-11 1.005 V
	I900 0.056 A	VLT906-12 1.042 V
		CELLAVG 1.005 V

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 2 OF 2

22-SEP-94 13:11:01 500 PROCESS	11.31	1.41	3.5	4	1.000	178	197	103	2.99	5.00	60	17	116	97	0.38	12.5	15.0	60	1.017	1.012	1.020	1.011	1.142	0.370	0.314	0.379	0.365	0.026
22-SEP-94 13:12:01 500 PROCESS	11.30	1.41	3.5	3	1.015	176	197	103	2.99	5.05	60	17	114	96	0.40	12.4	17.6	60	1.017	1.017	1.021	1.020	1.142	0.357	0.317	0.376	0.363	0.032
22-SEP-94 13:13:01 500 PROCESS	11.26	1.40	3.5	3	1.004	176	197	103	2.05	4.71	60	17	117	97	0.41	12.5	18.9	60	1.013	1.020	1.021	1.010	1.136	0.361	0.332	0.376	0.363	0.032
22-SEP-94 13:14:01 500 PROCESS	11.20	1.41	3.5	2	1.000	178	197	104	2.08	4.47	60	14	118	97	0.41	11.4	20.1	60	1.013	1.020	1.026	1.013	1.149	0.348	0.317	0.366	0.371	0.039
22-SEP-94 13:15:00 500 PROCESS	11.27	1.41	3.5	2	1.000	179	197	105	2.10	4.73	59	15	118	97	0.44	12.4	17.7	60	1.012	1.015	1.010	1.010	1.140	0.361	0.324	0.383	0.374	0.022
22-SEP-94 13:16:00 500 PROCESS	11.27	1.41	3.6	2	1.799	179	197	104	2.04	4.77	60	14	118	97	0.46	11.8	15.1	60	1.015	1.018	1.015	1.013	1.139	0.361	0.320	0.377	0.360	0.028
22-SEP-94 13:17:01 500 PROCESS	11.24	1.40	3.6	2	1.799	179	197	106	2.03	4.43	59	14	119	97	0.43	15.2	12.5	60	1.017	1.021	1.020	1.010	1.137	0.361	0.322	0.376	0.372	0.026
22-SEP-94 13:18:01 500 PROCESS	11.26	1.40	3.6	3	1.796	179	197	106	2.03	4.19	59	14	119	97	0.42	14.4	11.3	60	1.017	1.023	1.022	1.021	1.140	0.365	0.325	0.380	0.364	0.032
22-SEP-94 13:19:01 500 PROCESS	11.20	1.41	3.6	3	1.010	179	197	106	2.90	4.95	59	14	116	97	0.38	14.1	12.6	60	1.016	1.023	1.020	1.015	1.145	0.364	0.327	0.382	0.359	0.027
22-SEP-94 13:20:00 500 PROCESS	11.24	1.40	3.6	3	1.012	179	197	106	2.90	5.01	59	14	115	97	0.44	12.6	13.9	60	1.016	1.021	1.017	1.012	1.134	0.365	0.330	0.374	0.360	0.035
22-SEP-94 13:21:01 500 PROCESS	11.30	1.41	3.6	3	1.006	179	197	107	2.86	4.90	59	14	116	97	0.41	11.3	13.9	60	1.015	1.017	1.017	1.017	1.140	0.372	0.330	0.301	0.374	0.034
22-SEP-94 13:22:00 500 PROCESS	11.27	1.41	3.7	3	1.003	179	197	107	2.06	5.23	59	14	117	97	0.44	12.6	11.3	60	1.013	1.020	1.017	1.010	1.137	0.366	0.327	0.377	0.371	0.023
22-SEP-94 13:23:00 500 PROCESS	11.27	1.41	3.7	3	1.001	179	197	107	2.06	5.00	59	14	110	97	0.42	15.1	11.5	60	1.015	1.013	1.015	1.010	1.147	0.371	0.324	0.376	0.361	0.037
22-SEP-94 13:24:00 500 PROCESS	11.26	1.40	3.7	4	1.799	178	197	105	2.90	5.07	59	16	110	97	0.40	15.1	12.7	60	1.015	1.013	1.009	1.011	1.143	0.364	0.331	0.302	0.355	0.030
22-SEP-94 13:25:00 500 PROCESS	11.20	1.41	3.7	3	1.797	176	197	103	2.05	4.00	59	17	119	97	0.41	15.1	14.0	60	1.021	1.017	1.021	1.010	1.143	0.364	0.322	0.301	0.363	0.023
22-SEP-94 13:26:01 500 PROCESS	11.23	1.40	3.7	3	1.795	176	197	103	2.09	4.56	59	17	119	97	0.44	15.1	15.2	60	1.013	1.022	1.021	1.007	1.140	0.372	0.327	0.375	0.355	0.032
22-SEP-94 13:27:00 500 PROCESS	11.27	1.40	3.7	3	1.000	176	197	102	2.93	4.90	59	10	116	97	0.44	15.3	16.4	60	1.015	1.022	1.021	1.017	1.137	0.363	0.333	0.303	0.359	0.049
22-SEP-94 13:28:00 500 PROCESS	11.22	1.40	3.7	2	1.010	170	197	104	2.90	4.61	59	15	114	98	0.44	13.3	17.6	60	1.012	1.023	1.010	1.016	1.132	0.359	0.326	0.302	0.371	0.013
22-SEP-94 13:29:00 500 PROCESS	11.25	1.40	3.8	2	1.003	179	197	106	2.08	4.46	59	14	116	97	0.37	11.3	19.9	60	1.015	1.007	1.017	1.012	1.137	0.355	0.332	0.386	0.374	0.035
22-SEP-94 13:30:00 500 PROCESS	11.24	1.40	3.8	2	1.002	179	197	106	2.90	4.04	59	14	117	98	0.43	12.6	17.7	60	1.017	1.017	1.020	1.009	1.133	0.361	0.331	0.308	0.366	0.055
22-SEP-94 13:31:00 500 PROCESS	11.25	1.40	3.8	3	1.001	179	197	106	2.91	4.72	59	14	118	98	0.45	13.9	15.2	60	1.017	1.015	1.016	1.006	1.130	0.350	0.327	0.386	0.364	0.030
22-SEP-94 13:32:00 500 PROCESS	11.20	1.41	3.8	3	1.000	180	197	106	2.08	4.73	59	14	110	98	0.42	15.2	12.6	60	1.016	1.009	1.015	1.016	1.134	0.359	0.330	0.305	0.371	0.055
22-SEP-94 13:33:00 500 PROCESS	11.23	1.40	3.8	3	1.799	179	197	106	2.07	4.57	59	14	110	98	0.41	16.4	11.4	60	1.010	1.016	1.015	1.021	1.131	0.361	0.330	0.300	0.371	0.026
22-SEP-94 13:34:00 500 PROCESS	11.27	1.40	3.8	3	1.797	179	197	107	2.91	4.75	59	14	119	97	0.40	13.9	12.5	60	1.011	1.017	1.015	1.009	1.130	0.363	0.339	0.303	0.371	0.046
22-SEP-94 13:35:00 500 PROCESS	11.21	1.40	3.9	3	1.796	179	197	104	2.02	4.34	59	14	119	97	0.45	12.5	13.9	60	1.017	1.012	1.011	1.010	1.140	0.364	0.333	0.306	0.365	0.077
22-SEP-94 13:36:00 500 PROCESS	11.23	1.40	3.9	3	1.000	179	197	106	2.06	4.04	59	14	119	98	0.42	11.4	13.9	60	1.017	1.006	1.012	1.015	1.137	0.358	0.335	0.381	0.377	0.003
22-SEP-94 13:37:00 500 PROCESS	11.25	1.40	3.9	3	1.009	179	197	106	2.91	5.04	59	14	115	98	0.41	12.5	12.6	60	1.015	1.009	1.020	1.016	1.133	0.359	0.330	0.300	0.379	0.040
22-SEP-94 13:38:00 500 PROCESS	11.27	1.40	3.9	4	1.005	179	197	105	2.00	4.27	59	15	116	97	0.42	15.1	11.4	60	1.017	1.020	1.021	1.020	1.143	0.350	0.333	0.303	0.371	0.033
22-SEP-94 13:39:00 500 PROCESS	11.20	1.41	3.9	4	1.001	177	197	103	2.00	5.11	59	17	117	97	0.44	15.1	12.7	60	1.016	1.021	1.017	1.013	1.132	0.355	0.331	0.306	0.377	0.023
22-SEP-94 13:40:00 500 PROCESS	11.29	1.41	3.9	3	1.000	176	197	103	2.07	4.74	59	17	110	97	0.38	15.1	13.9	60	1.011	1.013	1.017	1.010	1.133	0.359	0.336	0.302	0.370	0.037
22-SEP-94 13:41:00 500 PROCESS	11.18	1.39	3.9	3	1.797	176	197	103	2.93	4.46	59	17	119	97	0.42	15.0	15.1	60	1.011	1.013	1.015	1.012	1.139	0.350	0.330	0.300	0.379	0.032
22-SEP-94 13:42:00 500 PROCESS	11.25	1.40	3.9	2	1.795	177	197	103	2.07	4.46	59	17	119	97	0.44	15.1	16.4	60	1.017	1.013	1.013	1.013	1.144	0.361	0.330	0.309	0.374	0.031
22-SEP-94 13:43:00 500 PROCESS	11.20	1.41	4.0	2	1.009	179	197	105	2.91	4.62	59	15	115	97	0.45	13.9	17.6	60	1.010	1.016	1.017	1.013	1.134	0.359	0.325	0.371	0.372	0.020
22-SEP-94 13:44:00 500 PROCESS	11.31	1.41	4.0	2	1.002	180	197	107	2.96	4.55	59	14	116	97	0.40	12.5	18.9	60	1.021	1.016	1.010	1.015	1.139	0.355	0.327	0.307	0.379	0.029
[illegible]	11.31	1.41	4.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

22-SEP-94 13:47:00 500 PROCESS	11.24	1.40	4.0	[illegible]	1.806	180	197	186	3.00	4.67	59	15	116	[illegible]	0.43	15.1	14.0	60	1.011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.375	0.377	0.017
22-SEP-94 13:48:00 500 PROCESS	11.27	1.40	4.1	3	1.798	179	197	186	2.94	4.31	59	14	118	98	0.45	15.1	11.3	60	1.016	1.015	1.017	1.013	1.142	0.340	0.322	0.386	0.377	0.040
22-SEP-94 13:49:00 500 PROCESS	11.22	1.40	4.1	3	1.797	180	197	186	2.95	4.09	59	14	119	98	0.43	15.0	11.5	60	1.012	1.012	1.010	1.006	1.150	0.354	0.320	0.387	0.381	0.040
22-SEP-94 13:50:00 500 PROCESS	11.28	1.41	4.1	3	1.795	179	197	186	2.96	4.62	59	14	119	98	0.47	12.7	12.6	60	1.017	1.013	1.017	1.012	1.151	0.350	0.320	0.380	0.381	0.026
22-SEP-94 13:51:00 500 PROCESS	11.26	1.40	4.1	3	1.796	179	197	186	2.96	4.40	59	14	119	97	0.45	11.3	14.9	60	1.015	1.015	1.016	1.012	1.139	0.353	0.331	0.383	0.385	0.013
22-SEP-94 13:52:00 500 PROCESS	11.27	1.40	4.1	3	1.800	179	197	186	2.93	4.71	59	14	115	97	0.43	12.6	12.6	60	1.007	1.011	1.016	1.013	1.142	0.365	0.322	0.382	0.382	0.034
22-SEP-94 13:53:00 500 PROCESS	11.24	1.40	4.1	4	1.804	179	197	186	2.96	4.59	59	15	116	98	0.42	12.6	11.4	60	1.013	1.017	1.011	1.012	1.140	0.348	0.333	0.387	0.369	0.031
22-SEP-94 13:54:00 500 PROCESS	11.19	1.40	4.2	4	1.802	177	197	184	2.93	4.38	59	17	117	98	0.42	15.0	11.3	60	1.012	1.016	1.015	1.015	1.140	0.355	0.324	0.382	0.376	0.024
22-SEP-94 13:54:59 500 PROCESS	11.23	1.40	4.2	3	1.799	176	197	183	2.97	4.37	59	17	118	97	0.42	15.1	11.3	60	1.015	1.018	1.018	1.016	1.143	0.363	0.338	0.389	0.375	0.037
22-SEP-94 13:56:00 500 PROCESS	11.23	1.40	4.2	3	1.798	176	197	183	3.02	4.19	59	17	119	98	0.40	17.7	11.4	60	1.017	1.014	1.017	1.012	1.142	0.355	0.333	0.388	0.368	0.033
22-SEP-94 13:57:00 500 PROCESS	11.28	1.41	4.2	3	1.794	176	197	183	2.96	4.10	59	17	119	98	0.39	17.4	11.4	60	1.012	1.020	1.021	1.010	1.144	0.345	0.333	0.382	0.379	0.028
22-SEP-94 13:58:00 500 PROCESS	11.26	1.40	4.2	2	1.800	178	197	185	2.94	5.06	59	15	116	98	0.37	16.3	12.6	60	1.013	1.009	1.013	1.006	1.145	0.355	0.330	0.380	0.385	0.039
22-SEP-94 13:59:00 500 PROCESS	11.23	1.40	4.2	2	1.814	179	197	185	2.95	4.89	59	14	114	98	0.43	15.1	13.9	60	1.016	1.015	1.020	1.010	1.140	0.357	0.325	0.375	0.370	0.043
22-SEP-94 14:00:00 500 PROCESS	11.29	1.41	4.2	2	1.804	180	197	184	3.02	4.84	59	14	116	98	0.44	17.6	15.1	60	1.011	1.013	1.012	1.013	1.134	0.360	0.330	0.381	0.375	0.038
22-SEP-94 14:01:00 500 PROCESS	11.30	1.41	4.3	2	1.799	180	197	184	2.93	4.69	59	14	117	98	0.42	11.3	16.4	60	1.010	1.013	1.017	1.016	1.145	0.363	0.332	0.387	0.375	0.023
22-SEP-94 14:02:00 500 PROCESS	11.27	1.41	4.3	3	1.800	180	197	186	3.00	5.09	59	14	118	98	0.44	12.5	13.9	60	1.011	1.009	1.015	1.006	1.142	0.340	0.322	0.382	0.372	0.042
22-SEP-94 14:03:00 500 PROCESS	11.23	1.40	4.3	3	1.798	180	197	186	2.94	4.67	59	14	118	98	0.44	13.9	12.6	60	1.013	1.020	1.021	1.011	1.138	0.372	0.325	0.377	0.372	0.020
22-SEP-94 14:04:00 500 PROCESS	11.28	1.41	4.3	3	1.797	180	197	186	2.97	4.77	59	14	119	97	0.42	16.5	11.4	60	1.013	1.018	1.009	1.001	1.140	0.363	0.328	0.376	0.376	0.030
22-SEP-94 14:05:00 500 PROCESS	11.26	1.40	4.3	3	1.795	180	197	186	2.96	4.76	59	14	119	98	0.45	15.1	12.7	60	1.015	1.013	1.011	1.010	1.147	0.374	0.328	0.381	0.368	0.029
22-SEP-94 14:06:00 500 PROCESS	11.24	1.40	4.3	3	1.795	179	197	187	3.00	4.48	59	14	119	98	0.42	12.6	13.8	60	1.016	1.006	1.015	1.017	1.140	0.371	0.324	0.383	0.374	0.035
22-SEP-94 14:06:59 500 PROCESS	11.23	1.40	4.4	3	1.808	179	197	186	3.05	4.78	59	14	116	98	0.43	10.1	15.2	60	1.009	1.010	1.013	1.015	1.139	0.385	0.322	0.383	0.344	0.033
22-SEP-94 14:07:59 500 PROCESS	11.31	1.41	4.4	3	1.813	179	197	186	3.02	4.89	59	14	114	98	0.45	12.6	13.4	60	1.008	1.012	1.015	1.012	1.137	0.380	0.327	0.382	0.357	0.009
22-SEP-94 14:09:00 500 PROCESS	11.29	1.41	4.4	3	1.804	180	197	186	2.98	4.67	59	14	117	98	0.44	13.9	11.3	60	1.010	1.018	1.013	1.006	1.133	0.375	0.326	0.382	0.370	0.035
22-SEP-94 14:10:00 500 PROCESS	11.28	1.41	4.4	4	1.801	177	197	184	3.01	4.70	59	16	118	98	0.40	15.2	11.3	60	1.009	1.010	1.013	1.011	1.137	0.370	0.324	0.386	0.363	0.035
22-SEP-94 14:10:59 500 PROCESS	11.18	1.39	4.4	3	1.799	176	197	184	3.03	4.50	59	17	118	98	0.40	15.1	11.4	60	1.006	1.016	1.016	1.007	1.139	0.374	0.321	0.385	0.349	0.027
22-SEP-94 14:11:59 500 PROCESS	11.29	1.41	4.4	3	1.796	176	197	183	3.04	4.29	59	17	119	98	0.41	17.6	11.3	60	1.009	1.020	1.017	1.016	1.142	0.374	0.321	0.383	0.349	0.035
22-SEP-94 14:12:59 500 PROCESS	11.24	1.40	4.4	3	1.796	176	197	183	3.03	4.69	59	17	119	98	0.39	10.9	11.3	60	1.012	1.013	1.013	1.011	1.144	0.369	0.322	0.377	0.374	0.005
22-SEP-94 14:13:59 500 PROCESS	11.26	1.40	4.5	2	1.809	178	197	185	3.01	5.32	59	16	115	98	0.40	17.7	12.6	60	1.012	1.023	1.020	1.012	1.139	0.370	0.326	0.392	0.383	0.030
22-SEP-94 14:14:59 500 PROCESS	11.26	1.40	4.5	2	1.807	179	197	186	2.99	4.45	59	14	115	98	0.43	15.1	14.0	60	1.013	1.020	1.016	1.015	1.149	0.365	0.330	0.388	0.376	0.020
22-SEP-94 14:15:59 500 PROCESS	11.28	1.41	4.5	2	1.805	180	197	186	2.96	4.34	59	14	116	98	0.38	12.5	15.2	60	1.013	1.017	1.020	1.016	1.149	0.364	0.335	0.391	0.381	0.050
22-SEP-94 14:16:59 500 PROCESS	11.28	1.41	4.5	2	1.808	179	197	186	3.02	4.40	59	14	117	98	0.45	11.4	16.4	60	1.001	1.012	1.016	1.005	1.137	0.369	0.332	0.385	0.370	0.007
22-SEP-94 14:17:59 500 PROCESS	11.27	1.41	4.5	2	1.798	180	197	186	3.05	4.89	59	14	118	98	0.43	12.6	15.2	60	1.017	1.018	1.009	1.009	1.134	0.363	0.331	0.386	0.375	0.037
22-SEP-94 14:18:59 500 PROCESS	11.32	1.41	4.5	3	1.797	179	197	186	3.03	4.50	59	14	119	98	0.43	13.9	12.5	60	1.011	1.009	1.012	1.007	1.136	0.343	0.332	0.386	0.370	0.053
22-SEP-94 14:19:59 500 PROCESS	11.26	1.40	4.6	3	1.797	179	197	186	2.97	4.24	59	14	118	98	0.42	15.1	10.1	60	1.012	1.016	1.016	1.013	1.126	0.354	0.330	0.385	0.365	0.022
22-SEP-94 14:20:59 500 PROCESS	11.31	1.41	4.6	3	1.795	179	197	186	2.97	5.23	59	14	119	98	0.41	15.1	12.5	60	1.010	1.016	1.011	1.007	1.107	0.360	0.333	0.392	0.372	0.023
22-SEP-94 14:21:59 500 PROCESS	11.29	1.41	4.6	3	1.794	179	197	185	3.01	5.28	59	14	119	98	0.49	12.6	13.9	60	1.015	1.015	1.012	1.002	1.139	0.369	0.338	0.387	0.364	0.031
22-SEP-94 14:22:59 500 PROCESS	11.24	1.40	4.6	3	1.809	179	197	186	3.09	5.15	59	14	115	98	0.42	11.3	15.1	60	1.015	1.018	1.023	1.007	1.140	0.359	0.320	0.387	0.370	0.003
22-SEP-94 14:23:59 500 PROCESS	11.19	1.40	4.6	3	1.804	179	197	186	3.05	4.40	59	14	116	98	0.41	12.5	12.6	60	1.011	1.011	1.006	1.012	1.140	0.361	0.336	0.381	0.360	0.000
22-SEP-94 14:24:59 500 PROCESS	11.25	1.40	4.6	3	1.800	179	197	186	3.05	4.47	59	14	117	98	0.42	13.9	10.3	60	1.009	1.016	1.011	1.007	1.139	0.360	0.335	0.380	0.374	0.022
22-SEP-94 14:25:59 500 PROCESS	11.24	1.40	4.6	3	1.799	179	197	186	3.00	4.01	59	14	118	98	0.44	15.1	12.5	60	1.011	1.010	1.015	1.011	1.140	0.370	0.331	0.387	0.360	0.044
22-SEP-94 14:26:59 500 PROCESS	11.24	1.40	4.7	4	1.796	177	197	184	3.04	4.79	59	16	118	98	0.42	15.1	13.9	60	1.007	1.010	1.010	1.006	1.134	0.365	0.332	0.386	0.360	0.034
22-SEP-94 14:27:59 500 PROCESS	11.28	1.41	4.7	3	1.795	176	197	183	3.08	4.48	59	17	119	98	0.41	15.1	15.1	60	1.017	1.018	1.009	1.004	1.139	0.350	0.341	0.385	0.371	0.055
22-SEP-94 14:28:59 500 PROCESS	11.21	1.40	4.7	3	1.793	176	197	183	2.98	4.45	59	18	119	98	0.39	15.2	16.4	60	1.016	1.011	1.015	1.011	1.137	0.354	0.335	0.389	0.371	0.020
22-SEP-94 14:29:59 500 PROCESS	11.33	1.41	4.7	2	1.806	175	197	182	3.04	4.48	59	18	115	98	0.42	15.2	17.6	60	1.015	1.011	1.015	1.012	1.134	0.372	0.326	0.380	0.358	0.020
22-SEP-94 14:30:59 500 PROCESS	11.25	1.40	4.7	2	1.805	178	197	185	3.02	4.46	59	15	116	98	0.42	12.6	10.9	60	1.017	1.012	1.016	1.015	1.103	0.376	0.320	0.379	0.371	0.020
22-SEP-94 14:31:59 500 PROCESS	11.22	1.40	4.7	2	1.801	179	197	185	3.01	5.30	59	15	116	98	0.42	11.3	10.9	60	1.012	1.013	1.017	1.012	1.138	0.360	0.343	0.389	0.374	0.044
22-SEP-94 14:32:59 500 PROCESS	11.30	1.41	4.8	2	1.800	179	197	185	3.01	5.26	59	15	118	98	0.44	12.6	17.4	60	1.017	1.017	1.013	1.013	1.143	0.365	0.325	0.382	0.380	0.010
22-SEP-94 14:33:59 500 PROCESS	11.24	1.40	4.8	3	1.797	178	197	185	2.97	5.08	59	15	118	98	0.40	13.9	15.1	60	1.013	1.021	1.016	1.016	1.143	0.370	0.330	0.374	0.375	0.037
22-SEP-94 14:34:59 500 PROCESS	11.29	1.41	4.8	3	1.797	179	197	185	3.01	4.87	59	15	118	98	0.42	15.0	12.6	60	1.011	1.011	1.010	1.012	1.150	0.374	0.327	0.371	0.374	0.029
22-SEP-94 14:35:59 500 PROCESS	11.25	1.40	4.8	3	1.795	179	197	185	3.04	4.76	59	15	119	98	0.37	17.6	11.4	60	1.006	1.012	1.010	1.009	1.140	0.371	0.321	0.386	0.360	0.031
22-SEP-94 14:36:59 500 PROCESS	11.25	1.40	4.8	3	1.798	178	197	185	2.99	5.75	59	15	119	98	0.41	15.0	12.5	60	1.013	1.013	1.015	1.006	1.130	0.364	0.326	0.385	0.375	0.032
22-SEP-94 14:37:59 500 PROCESS	11.32	1.41	4.8	3	1.808	178	197	185	3.02	5.76	59	15	115	98	0.43	13.9	13.9	60	1.007	1.005	1.007	1.010	1.142	0.365	0.325	0.385	0.369	0.016
22-SEP-94 14:38:59 500 PROCESS	11.26	1.40	4.8	3	1.805	179	197	185	3.03	4.54	59	15	116	98	0.44	11.4	15.0	60	1.015	1.011	1.021	1.015	1.133	0.350	0.333	0.389	0.380	0.015
22-SEP-94 14:39:59 500 PROCESS	11.30	1.41	4.9	3	1.801	179	197	185	3.04	5.42	59	15	117	98	0.41	12.5	14.0	60	1.012	1.013	1.005	1.009	1.140	0.363	0.332	0.389	0.374	0.040
22-SEP-94 14:40:59 500 PROCESS	11.27	1.41	4.9	3	1.800	179	197	185	2.99	5.20	59	15	117	98	0.43	12.4	12.2	60	1.007	1.016	1.020	1.006	1.140	0.366	0.326	0.394	0.375	0.022
22-SEP-94 14:41:59 500 PROCESS	11.25	1.40	4.9	3	1.797	178	197	185	3.07	5.77	59	15	118	98	0.41	16.3	11.4	60	1.007	1.013	1.018	1.006	1.139	0.360	0.332	0.387	0.370	0.051
22-SEP-94 14:42:59 500 PROCESS	11.29	1.41	4.9	3	1.797	179	197	186	3.05	5.62	59	15	118	98	0.39	15.0	12.6	60	1.017	1.007	1.018	1.012	1.142	0.360	0.336	0.386	0.381	0.043
22-SEP-94 14:43:59 500 PROCESS	11.29	1.41	4.9	4	1.795	177	197	184	2.98	5.54	59	17	119	98	0.43	13.9	13.9	60	1.013	1.017	1.011	1.015	1.137	0.363	0.339	0.386	0.374	0.026
22-SEP-94 14:44:59 500 PROCESS	11.28	1.40	4.9	3	1.794	176	197	183	3.05	5.26	59	18	119	98	0.40	13.9	15.2	60	1.011	1.010	1.015	1.004	1.137	0.360	0.330	0.380	0.365	0.054
22-SEP-94 14:45:59 500 PROCESS	11.35	1.41	4.9	3	1.806	175	197	183	3.07	5.43	59	18	115	98	0.41	13.9	16.4	60	1.017	1.012	1.017	1.002	1.140	0.360	0.333	0.386	0.340	0.054
22-SEP-94 14:46:58 500 PROCESS	11.31	1.41	5.0	3	1.807	175	197	182	3.10	5.55	59	18	114	98	0.44	13.9	17.7	60	1.013	1.010	1.010	1.009	1.136	0.353	0.332	0.382	0.363	0.033
22-SEP-94 14:47:59 500 PROCESS	11.23	1.40	5.0	2	1.808	178	197	184	3.02	5.22	59	16	116	99	0.41	12.4	10.9	60	1.011	1.015	1.011	1.011	1.142	0.372	0.324	0.375	0.370	0.031
22-SEP-94 14:48:59 500 PROCESS	11.27	1.41	5.0	2	1.799	179	197	186	3.01	5.92	59	15	118	99	0.41	12.6	20.1	60	1.005	1.009	1.009	1.032	1.132	0.365	0.342	0.380	0.374	0.046
22-SEP-94 14:49:59 500 PROCESS	11.31	1.41	5.0	2	1.797	175	197	183	3.00	5.71	59	18	118	98	0.43	12.5	17.7	60	1.012	1.020	1.011	1.012	1.145	0.344	0.341	0.381	0.369	0.072
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

22-SEP-94 14:52:59 500 PROCESS	11.25	1.40	5.1	3	1.794	175	197	103	2.99	5.41	60	18	119	58	0.40	17.4	11.4	60	1.015	1.013	1.020	1.013	1.147	0.376	0.338	0.374	0.365	0.029
22-SEP-94 14:53:58 500 PROCESS	11.20	1.41	5.1	3	1.794	176	197	102	3.02	6.14	59	18	119	98	0.44	16.9	11.4	60	1.011	1.012	1.015	1.013	1.140	0.357	0.341	0.375	0.364	0.045
22-SEP-94 14:54:59 500 PROCESS	11.25	1.40	5.1	3	1.809	176	197	103	3.07	5.69	60	18	115	98	0.41	15.1	12.7	60	1.010	1.016	1.017	1.018	1.144	0.364	0.339	0.380	0.372	0.037
22-SEP-94 14:55:59 500 PROCESS	11.25	1.40	5.1	3	1.802	177	197	103	3.08	5.31	60	17	116	98	0.44	12.4	13.9	60	1.011	1.012	1.018	1.014	1.134	0.369	0.331	0.374	0.368	0.024
22-SEP-94 14:56:58 500 PROCESS	11.25	1.40	5.1	3	1.800	177	197	103	3.10	5.20	60	17	117	98	0.47	10.1	15.1	60	1.013	1.010	1.013	1.012	1.136	0.363	0.335	0.372	0.369	0.033
22-SEP-94 14:57:59 500 PROCESS	11.20	1.41	5.1	3	1.798	177	197	104	3.06	6.16	60	17	118	98	0.45	12.6	13.9	60	1.017	1.016	1.013	1.011	1.137	0.364	0.337	0.370	0.363	0.037
22-SEP-94 14:58:58 500 PROCESS	11.26	1.40	5.2	3	1.798	177	197	104	3.03	5.89	60	17	118	98	0.39	13.9	12.7	60	1.017	1.018	1.020	1.018	1.143	0.361	0.344	0.383	0.365	0.029
22-SEP-94 14:59:58 500 PROCESS	11.31	1.41	5.2	3	1.793	177	197	104	3.07	6.22	60	17	119	98	0.44	15.1	11.4	60	1.010	1.013	1.018	1.010	1.138	0.369	0.330	0.374	0.369	0.042
22-SEP-94 15:00:58 500 PROCESS	11.29	1.41	5.2	3	1.794	177	197	104	3.04	6.04	60	16	119	98	0.44	13.9	12.6	60	1.021	1.020	1.017	1.022	1.143	0.380	0.337	0.381	0.364	0.020
22-SEP-94 15:01:58 500 PROCESS	11.30	1.41	5.2	3	1.794	177	197	104	3.03	5.83	60	16	119	98	0.39	12.5	13.9	60	1.017	1.013	1.017	1.017	1.142	0.385	0.341	0.381	0.361	0.028
22-SEP-94 15:02:58 500 PROCESS	11.20	1.40	5.2	4	1.801	177	197	104	3.01	6.50	60	16	117	98	0.43	11.3	15.1	60	1.013	1.016	1.021	1.017	1.149	0.365	0.336	0.385	0.360	0.031
22-SEP-94 15:03:58 500 PROCESS	11.28	1.41	5.2	4	1.811	175	197	102	3.07	5.99	60	18	115	98	0.45	12.6	15.1	60	1.017	1.020	1.015	1.013	1.136	0.363	0.343	0.382	0.358	0.034
22-SEP-94 15:04:58 500 PROCESS	11.27	1.40	5.2	3	1.803	175	197	103	3.04	5.47	60	18	114	99	0.41	13.9	15.1	60	1.005	1.016	1.016	1.011	1.120	0.368	0.337	0.365	0.350	0.085
22-SEP-94 15:05:58 500 PROCESS	11.26	1.40	5.3	3	1.798	176	197	102	3.01	5.98	60	18	117	99	0.46	15.1	15.2	60	1.017	1.015	1.012	1.013	1.133	0.374	0.332	0.365	0.355	0.048
22-SEP-94 15:06:58 500 PROCESS	11.28	1.41	5.3	2	1.797	176	197	103	3.02	6.00	58	17	118	98	0.39	16.3	13.9	60	1.004	1.012	1.010	1.015	1.133	0.375	0.337	0.383	0.358	0.039
22-SEP-94 15:07:58 500 PROCESS	11.25	1.40	5.3	2	1.795	178	197	105	3.02	5.86	59	15	119	99	0.43	17.5	12.5	60	1.010	1.010	1.010	1.007	1.131	0.371	0.342	0.375	0.353	0.030
22-SEP-94 15:08:58 500 PROCESS	11.21	1.40	5.3	2	1.795	179	197	105	2.97	6.02	59	15	119	98	0.43	17.6	11.3	60	1.010	1.017	1.012	1.015	1.136	0.379	0.338	0.377	0.359	0.034
22-SEP-94 15:09:58 500 PROCESS	11.31	1.41	5.3	2	1.792	179	197	105	3.05	6.00	59	15	119	99	0.40	15.2	12.7	60	1.011	1.016	1.017	1.016	1.143	0.366	0.331	0.369	0.365	0.048
22-SEP-94 15:10:58 500 PROCESS	11.28	1.41	5.3	2	1.803	178	197	105	3.08	6.09	59	15	117	99	0.40	13.8	13.9	60	1.017	1.016	1.021	1.018	1.140	0.365	0.335	0.377	0.365	0.046
22-SEP-94 15:11:58 500 PROCESS	11.30	1.41	5.4	2	1.808	178	197	105	3.08	5.95	59	16	114	98	0.43	12.5	15.0	60	1.016	1.009	1.018	1.013	1.134	0.369	0.332	0.375	0.358	0.017
22-SEP-94 15:12:58 500 PROCESS	11.27	1.40	5.4	3	1.804	179	197	105	3.12	6.41	59	15	116	99	0.43	11.3	15.2	60	1.013	1.012	1.010	1.015	1.140	0.375	0.336	0.377	0.368	0.045
22-SEP-94 15:13:58 500 PROCESS	11.30	1.41	5.4	3	1.800	178	197	105	3.07	6.31	59	15	117	98	0.41	12.6	14.0	60	1.016	1.015	1.011	1.012	1.129	0.372	0.337	0.375	0.365	0.045
22-SEP-94 15:14:58 500 PROCESS	11.27	1.41	5.4	3	1.798	178	197	105	3.08	6.00	59	15	118	98	0.46	13.8	12.7	60	1.012	1.011	1.009	1.012	1.142	0.370	0.339	0.386	0.365	0.046
22-SEP-94 15:15:58 500 PROCESS	11.18	1.39	5.4	3	1.797	179	197	105	3.05	6.49	59	15	119	98	0.43	15.0	11.3	60	1.010	1.013	1.012	1.010	1.134	0.375	0.332	0.388	0.366	0.050
22-SEP-94 15:16:58 500 PROCESS	11.32	1.41	5.4	3	1.794	178	197	105	3.12	6.36	59	15	119	99	0.42	12.4	12.6	60	1.013	1.013	1.011	1.010	1.140	0.366	0.332	0.385	0.354	0.020
22-SEP-94 15:17:58 500 PROCESS	11.26	1.40	5.4	3	1.799	178	197	105	3.08	6.17	59	15	119	99	0.41	10.1	13.0	60	1.005	1.007	1.011	1.011	1.142	0.370	0.336	0.375	0.361	0.023
22-SEP-94 15:18:58 500 PROCESS	11.24	1.40	5.5	3	1.802	178	197	105	3.03	7.01	59	15	116	98	0.42	12.6	15.1	60	1.010	1.017	1.009	1.012	1.143	0.368	0.330	0.385	0.364	0.071
22-SEP-94 15:19:58 500 PROCESS	11.32	1.41	5.5	3	1.800	178	197	105	3.06	6.55	59	15	114	98	0.37	14.0	12.4	60	1.015	1.006	1.013	1.017	1.137	0.368	0.344	0.381	0.365	0.054
22-SEP-94 15:20:58 500 PROCESS	11.28	1.41	5.5	3	1.801	179	197	105	3.02	6.38	59	15	117	99	0.40	15.2	11.3	60	1.012	1.021	1.011	1.007	1.144	0.369	0.337	0.381	0.364	0.032
22-SEP-94 15:21:58 500 PROCESS	11.24	1.40	5.5	3	1.798	178	197	105	3.02	6.42	59	15	117	98	0.44	15.1	12.6	60	1.011	1.015	1.013	1.006	1.150	0.372	0.339	0.377	0.371	0.028
22-SEP-94 15:22:58 500 PROCESS	11.28	1.41	5.5	3	1.798	179	197	106	3.01	6.38	58	15	118	99	0.41	12.6	13.0	60	1.004	1.013	1.012	1.010	1.142	0.374	0.344	0.372	0.340	0.046
22-SEP-94 15:23:58 500 PROCESS	11.27	1.41	5.5	4	1.794	177	197	103	3.10	5.09	59	17	119	99	0.44	12.6	15.1	60	1.004	1.007	1.010	1.007	1.134	0.381	0.330	0.374	0.357	0.011
22-SEP-94 15:24:58 500 PROCESS	11.32	1.41	5.6	3	1.792	176	197	103	3.05	5.09	59	18	119	98	0.40	12.4	15.5	60	1.004	1.010	1.012	1.009	1.134	0.369	0.333	0.382	0.369	0.029
22-SEP-94 15:25:58 500 PROCESS	11.28	1.41	5.6	3	1.803	175	197	102	3.09	5.82	59	18	117	99	0.43	12.6	17.7	60	1.009	1.010	1.015	1.007	1.130	0.376	0.330	0.391	0.347	0.029
22-SEP-94 15:26:58 500 PROCESS	11.26	1.40	5.6	3	1.810	175	197	102	3.10	5.88	59	18	115	98	0.44	12.5	18.9	60	1.007	1.010	1.007	1.009	1.139	0.370	0.327	0.381	0.366	0.039
22-SEP-94 15:27:58 500 PROCESS	11.29	1.41	5.6	2	1.803	178	197	104	3.06	5.72	59	16	116	99	0.42	11.3	20.1	60	1.012	1.012	1.011	1.013	1.139	0.383	0.337	0.389	0.372	0.040
22-SEP-94 15:28:58 500 PROCESS	11.24	1.40	5.6	2	1.800	179	198	105	3.04	6.14	59	15	117	98	0.41	12.6	17.7	60	1.007	1.013	1.012	1.015	1.131	0.376	0.333	0.379	0.354	0.077
22-SEP-94 15:29:58 500 PROCESS	11.23	1.40	5.6	2	1.797	179	197	105	3.03	6.08	59	15	118	98	0.42	13.9	15.0	60	1.012	1.017	1.018	1.015	1.140	0.370	0.341	0.385	0.361	0.055
22-SEP-94 15:30:58 500 PROCESS	11.27	1.41	5.6	2	1.799	179	197	105	3.12	6.08	59	15	118	99	0.41	15.1	13.9	60	1.012	1.015	1.015	1.010	1.143	0.368	0.341	0.379	0.369	0.062
22-SEP-94 15:31:58 500 PROCESS	11.22	1.40	5.7	2	1.793	179	197	105	3.10	5.01	59	15	119	98	0.46	16.4	11.3	60	1.007	1.015	1.015	1.012	1.142	0.376	0.333	0.382	0.366	0.044
22-SEP-94 15:32:58 500 PROCESS	11.30	1.41	5.7	3	1.792	179	197	105	3.12	6.74	59	15	119	99	0.47	14.3	11.3	60	1.011	1.009	1.010	1.010	1.136	0.370	0.339	0.381	0.376	0.029
22-SEP-94 15:33:57 500 PROCESS	11.20	1.41	5.7	3	1.804	179	198	105	3.10	6.29	59	15	116	99	0.44	15.0	12.5	60	1.013	1.007	1.015	1.004	1.139	0.361	0.333	0.382	0.374	0.028
22-SEP-94 15:34:57 500 PROCESS	11.30	1.41	5.7	3	1.810	179	197	105	3.13	6.34	59	15	115	98	0.42	12.6	13.0	60	1.009	1.006	1.009	1.010	1.133	0.363	0.339	0.391	0.380	0.029
22-SEP-94 15:35:58 500 PROCESS	11.29	1.41	5.7	3	1.800	179	197	105	3.10	6.20	59	15	117	98	0.42	10.1	15.1	60	1.007	1.005	1.010	1.006	1.134	0.365	0.342	0.385	0.372	0.024
22-SEP-94 15:36:58 500 PROCESS	11.26	1.40	5.7	3	1.796	179	198	105	3.08	5.79	59	15	117	99	0.46	12.5	13.9	60	1.010	1.015	1.012	1.007	1.140	0.349	0.327	0.381	0.369	0.034
22-SEP-94 15:37:58 500 PROCESS	11.30	1.41	5.8	3	1.796	179	197	105	3.05	5.61	59	15	118	98	0.45	13.9	12.6	60	1.015	1.011	1.005	1.010	1.138	0.372	0.330	0.377	0.370	0.097
22-SEP-94 15:38:57 500 PROCESS	11.28	1.40	5.8	3	1.795	179	197	105	3.09	6.47	59	15	119	99	0.43	15.1	11.2	60	1.007	1.024	1.015	1.010	1.137	0.361	0.344	0.381	0.370	0.040
22-SEP-94 15:39:57 500 PROCESS	11.32	1.41	5.8	3	1.794	179	198	105	3.08	5.76	59	15	119	99	0.45	13.9	12.7	60	1.012	1.011	1.015	1.013	1.142	0.385	0.341	0.379	0.379	0.039
22-SEP-94 15:40:58 500 PROCESS	11.25	1.40	5.8	3	1.792	178	198	106	3.10	5.58	59	15	119	99	0.40	12.5	13.9	60	1.011	1.010	1.010	1.016	1.137	0.385	0.346	0.376	0.375	0.081
22-SEP-94 15:41:57 500 PROCESS	11.30	1.41	5.8	3	1.806	179	197	106	3.08	6.74	59	15	116	99	0.40	11.3	15.1	60	1.004	1.009	1.016	1.015	1.142	0.381	0.337	0.375	0.371	0.027
22-SEP-94 15:42:57 500 PROCESS	11.28	1.41	5.8	3	1.812	178	198	104	3.08	6.61	59	15	114	99	0.43	12.4	12.5	60	1.001	1.012	1.006	1.005	1.137	0.371	0.341	0.364	0.375	0.035
22-SEP-94 15:43:57 500 PROCESS	11.26	1.40	5.8	4	1.803	178	197	105	3.11	6.25	59	16	117	99	0.41	13.9	11.3	60	1.010	1.006	1.011	1.015	1.132	0.385	0.347	0.382	0.348	0.056
22-SEP-94 15:44:57 500 PROCESS	11.20	1.40	5.9	4	1.796	176	197	103	3.09	6.40	59	17	118	99	0.44	15.1	11.3	60	0.999	1.015	1.005	1.004	1.136	0.380	0.341	0.348	0.357	0.011
22-SEP-94 15:45:57 500 PROCESS	11.26	1.40	5.9	3	1.794	176	197	103	3.12	6.26	58	18	118	99	0.43	16.4	11.3	60	1.007	1.015	1.013	1.009	1.142	0.381	0.333	0.375	0.348	0.060
22-SEP-94 15:46:58 500 PROCESS	11.28	1.41	5.9	3	1.795	175	198	102	3.09	5.65	59	18	119	99	0.42	17.4	11.4	60	1.011	1.005	1.006	1.015	1.137	0.391	0.342	0.381	0.365	0.081
22-SEP-94 15:47:57 500 PROCESS	11.28	1.41	5.9	2	1.807	177	197	103	3.08	6.10	59	18	116	99	0.43	18.9	10.2	60	1.009	1.010	1.010	1.016	1.149	0.382	0.346	0.380	0.371	0.037
22-SEP-94 15:48:57 500 PROCESS	11.27	1.40	5.9	2	1.804	178	197	105	3.10	5.44	59	16	115	99	0.42	16.4	12.4	60	1.011	1.013	1.011	1.011	1.140	0.371	0.331	0.377	0.374	0.045
22-SEP-94 15:49:57 500 PROCESS	11.21	1.40	5.9	2	1.801	179	198	105	3.12	5.53	59	15	117	99	0.42	15.0	13.0	60	1.013	1.006	1.017	1.013	1.142	0.382	0.349	0.379	0.375	0.040
22-SEP-94 15:50:57 500 PROCESS	11.31	1.41	5.9	2	1.798	179	198	105	3.11	5.37	59	15	117	99	0.43	12.5	15.2	60	1.007	1.005	1.009	1.013	1.137	0.380	0.346	0.372	0.348	0.037
22-SEP-94 15:51:57 500 PROCESS	11.28	1.41	6.0	2	1.795	179	197	105	3.06	5.27	58	15	118	99	0.45	11.1	16.3	60	1.011	1.006	1.016	1.010	1.133	0.361	0.342	0.386	0.366	0.044
22-SEP-94 15:52:57 500 PROCESS	11.28	1.41	6.0	2	1.798	179	197	106	3.08	5.65	58	15	119	99	0.40	12.6	15.1	60	1.010	1.010	1.007	1.006	1.136	0.365	0.337	0.392	0.379	0.038
22-SEP-94 15:53:57 500 PROCESS	11.30	1.41	6.0	2	1.793	179	198	105	3.10	5.65	59	15	119	99	0.46	13.8	12.6	60	1.007	1.009	1.009	1.012	1.147	0.375	0.339	0.394	0.369	0.063
22-SEP-94 15:54:57 500 PROCESS	11.23	1.40	6.0	3	1.804	178	197	105	3.13	5.86	59	15	116	99	0.43	15.0	11.5	60	1.009	1.015	1.011	1.007	1.138	0.366	0.303	0.386	0.374	0.328
22-SEP-94 15:55:57 500 PROCESS	11.35	1.41	6.0	3	1.807	179	198	105	3.14	6.37	58	16	115	99	0.41	13.9	12.5	60	1.013	1.026	1.013	1.011	1.123	0.353	0.330	0.392	0.371	0.028

22-SEP-94 15:58:57 500 PROCESS	11.24	1.40	6.1	3	1.796	179	197	186	3.10	6.10	59	15	118	99	0.46	12.6	13.9	60	1.010	1.013	1.012	1.009	1.134	0.380	0.337	0.393	0.371	0.076
22-SEP-94 15:59:57 500 PROCESS	11.19	1.39	6.1	3	1.794	179	197	186	3.06	5.05	58	15	118	99	0.45	13.9	11.4	60	1.007	1.015	1.009	1.009	1.136	0.370	0.341	0.387	0.380	0.031
22-SEP-94 16:00:57 500 PROCESS	11.31	1.41	6.1	3	1.793	179	197	186	3.12	6.17	59	15	119	99	0.41	15.2	11.3	60	1.001	1.005	1.011	1.013	1.132	0.383	0.331	0.380	0.376	0.055
22-SEP-94 16:01:57 500 PROCESS	11.24	1.40	6.1	3	1.793	179	197	186	3.11	5.01	59	15	119	99	0.42	13.9	12.6	60	1.004	1.011	1.009	1.005	1.129	0.383	0.337	0.383	0.379	0.087
22-SEP-94 16:02:57 500 PROCESS	11.26	1.40	6.1	3	1.804	179	197	186	3.15	6.03	59	15	116	98	0.44	12.5	13.8	60	1.001	0.999	1.009	1.010	1.137	0.377	0.337	0.380	0.375	0.071
22-SEP-94 16:03:57 500 PROCESS	11.26	1.40	6.2	3	1.809	179	198	186	3.11	5.84	59	15	114	99	0.43	11.3	13.9	60	1.006	1.011	1.009	1.002	1.136	0.380	0.381	0.376	0.357	0.040
22-SEP-94 16:04:57 500 PROCESS	11.23	1.40	6.2	4	1.800	177	197	183	3.15	5.84	59	17	117	99	0.46	12.5	13.8	60	1.006	1.016	1.013	1.010	1.132	0.387	0.337	0.382	0.364	0.040
22-SEP-94 16:05:57 500 PROCESS	11.30	1.41	6.2	3	1.797	176	198	183	3.13	5.62	59	18	118	99	0.41	13.9	13.9	60	1.007	1.006	1.009	1.013	1.123	0.387	0.342	0.385	0.364	0.040
22-SEP-94 16:06:57 500 PROCESS	11.23	1.40	6.2	3	1.796	176	198	182	3.13	5.26	59	18	119	99	0.46	15.1	13.0	60	1.012	1.015	1.015	1.002	1.136	0.381	0.327	0.379	0.369	0.033
22-SEP-94 16:07:57 500 PROCESS	11.24	1.40	6.2	3	1.794	176	197	182	3.10	5.09	59	18	119	99	0.44	17.5	13.0	60	1.002	1.013	1.013	1.012	1.142	0.382	0.337	0.391	0.365	0.050
22-SEP-94 16:08:57 500 PROCESS	11.25	1.40	6.2	2	1.791	178	197	185	3.10	4.98	59	16	119	99	0.42	17.6	11.3	60	1.004	1.017	1.016	1.011	1.143	0.386	0.342	0.374	0.377	0.049
22-SEP-94 16:09:57 500 PROCESS	11.20	1.41	6.2	2	1.804	179	198	185	3.16	6.68	59	15	116	99	0.40	17.5	11.3	60	1.009	1.013	1.011	1.005	1.132	0.387	0.331	0.381	0.380	0.053
22-SEP-94 16:10:57 500 PROCESS	11.24	1.40	6.3	2	1.800	179	198	186	3.16	6.39	59	15	114	99	0.42	15.1	12.7	60	1.012	1.020	1.013	1.010	1.136	0.381	0.331	0.380	0.372	0.060
22-SEP-94 16:11:57 500 PROCESS	11.24	1.40	6.3	2	1.802	179	197	185	3.08	6.25	59	15	116	99	0.42	13.9	15.0	60	1.001	1.007	1.018	1.011	1.138	0.387	0.346	0.379	0.374	0.049
22-SEP-94 16:12:57 500 PROCESS	11.17	1.39	6.3	2	1.798	179	197	186	3.14	6.13	59	15	117	99	0.43	12.6	15.1	60	1.009	1.011	1.005	1.006	1.134	0.383	0.335	0.372	0.370	0.037
22-SEP-94 16:13:57 500 PROCESS	11.29	1.41	6.3	3	1.798	179	198	185	3.09	6.54	58	15	118	99	0.40	11.4	15.0	60	0.999	1.012	1.010	1.005	1.138	0.375	0.331	0.389	0.374	0.026
22-SEP-94 16:14:57 500 PROCESS	11.18	1.39	6.3	3	1.794	179	197	185	3.07	4.30	59	15	118	99	0.43	12.6	13.9	60	1.007	1.011	1.009	1.010	1.136	0.389	0.336	0.385	0.343	0.031
22-SEP-94 16:15:57 500 PROCESS	11.30	1.41	6.3	3	1.794	178	197	186	3.07	5.94	59	15	119	100	0.43	14.0	11.4	60	1.009	1.010	1.012	1.010	1.129	0.391	0.331	0.375	0.374	0.042
22-SEP-94 16:16:57 500 PROCESS	11.27	1.40	6.4	3	1.793	179	198	186	3.15	6.84	59	15	119	99	0.42	13.9	11.3	60	1.006	1.009	1.015	1.009	1.139	0.389	0.327	0.386	0.371	0.012
22-SEP-94 16:17:57 500 PROCESS	11.27	1.40	6.4	3	1.806	179	197	185	3.17	5.91	59	15	115	99	0.41	12.5	12.7	60	1.005	1.009	1.006	1.009	1.137	0.380	0.320	0.379	0.370	0.051
22-SEP-94 16:18:56 500 PROCESS	11.31	1.41	6.4	3	1.805	178	198	186	3.16	6.21	59	15	115	100	0.44	10.0	13.8	60	1.004	1.015	1.013	1.004	1.136	0.380	0.317	0.377	0.376	0.045
22-SEP-94 16:19:57 500 PROCESS	11.20	1.41	6.4	3	1.799	179	198	184	3.16	6.26	59	15	116	99	0.43	12.4	15.1	60	1.006	1.011	1.002	1.009	1.139	0.396	0.325	0.377	0.340	0.043
22-SEP-94 16:20:57 500 PROCESS	11.30	1.41	6.4	3	1.798	179	198	186	3.14	6.15	59	15	117	99	0.43	13.8	12.6	60	1.011	1.010	1.013	1.013	1.130	0.392	0.321	0.382	0.365	0.051
22-SEP-94 16:21:57 500 PROCESS	11.26	1.40	6.4	3	1.795	179	197	186	3.10	5.97	59	15	118	99	0.45	15.1	11.3	60	1.004	1.012	1.009	1.004	1.134	0.391	0.327	0.369	0.376	0.062
22-SEP-94 16:22:57 500 PROCESS	11.29	1.41	6.5	3	1.795	179	197	186	3.15	6.22	59	15	119	99	0.45	15.1	12.5	60	1.006	1.017	1.013	1.009	1.133	0.391	0.315	0.372	0.374	0.051
22-SEP-94 16:23:56 500 PROCESS	11.33	1.41	6.5	3	1.795	179	197	187	3.16	5.01	59	15	119	99	0.40	12.5	13.9	60	1.007	1.016	1.013	1.015	1.137	0.396	0.322	0.382	0.375	0.040
22-SEP-94 16:24:57 500 PROCESS	11.15	1.39	6.5	4	1.803	176	197	184	3.12	6.33	59	17	117	99	0.44	12.5	15.0	59	1.007	1.006	1.017	1.010	1.125	0.393	0.327	0.383	0.366	0.034
22-SEP-94 16:25:56 500 PROCESS	11.31	1.41	6.5	3	1.800	176	197	183	3.10	4.20	59	18	114	100	0.42	12.5	16.4	60	1.009	1.018	1.013	1.011	1.130	0.386	0.324	0.377	0.360	0.050
22-SEP-94 16:26:56 500 PROCESS	11.20	1.41	6.5	3	1.800	176	197	183	3.19	6.14	59	18	116	99	0.42	12.6	17.6	60	1.010	1.013	1.015	1.009	1.132	0.391	0.326	0.380	0.361	0.044
22-SEP-94 16:27:57 500 PROCESS	11.21	1.40	6.5	3	1.799	176	198	182	3.13	5.80	60	18	117	99	0.45	12.5	10.9	60	1.009	1.015	1.016	1.005	1.133	0.386	0.321	0.382	0.357	0.048
22-SEP-94 16:28:57 500 PROCESS	11.29	1.41	6.5	2	1.795	178	197	185	3.10	6.21	59	16	118	99	0.42	11.3	20.1	60	1.009	1.015	1.013	1.007	1.132	0.385	0.325	0.381	0.366	0.017
22-SEP-94 16:29:57 500 PROCESS	11.29	1.41	6.6	2	1.795	179	197	185	3.12	5.07	60	15	119	99	0.38	12.6	17.6	60	1.010	1.015	1.013	1.010	1.131	0.386	0.316	0.380	0.366	0.023
22-SEP-94 16:30:56 500 PROCESS	11.26	1.40	6.6	2	1.793	179	198	186	3.17	5.70	59	15	119	99	0.40	13.9	15.1	60	1.010	1.018	1.004	1.005	1.137	0.386	0.316	0.380	0.370	0.034
22-SEP-94 16:31:56 500 PROCESS	11.27	1.40	6.6	2	1.793	179	198	185	3.13	5.62	59	15	119	99	0.45	15.1	13.9	60	1.009	1.005	1.004	1.006	1.137	0.392	0.324	0.380	0.370	0.002
22-SEP-94 16:32:56 500 PROCESS	11.24	1.40	6.6	2	1.807	179	198	185	3.14	5.01	59	15	115	99	0.42	16.9	11.4	60	1.006	1.016	1.010	1.007	1.142	0.377	0.320	0.393	0.365	0.035
22-SEP-94 16:33:56 500 PROCESS	11.30	1.41	6.6	3	1.802	179	198	185	3.17	6.26	59	15	116	100	0.47	15.1	11.3	60	1.010	1.011	1.011	1.007	1.139	0.380	0.317	0.385	0.375	0.074
22-SEP-94 16:34:56 500 PROCESS	11.27	1.40	6.6	3	1.800	179	197	186	3.13	5.80	59	15	117	100	0.46	13.9	12.6	60	1.011	1.007	1.020	1.012	1.133	0.384	0.320	0.380	0.371	0.034
22-SEP-94 16:35:56 500 PROCESS	11.33	1.41	6.7	3	1.798	179	198	186	3.14	5.60	59	15	118	99	0.42	12.6	15.0	60	1.007	1.006	1.016	1.010	1.136	0.381	0.327	0.393	0.369	0.022
22-SEP-94 16:36:56 500 PROCESS	11.24	1.40	6.7	3	1.796	179	198	185	3.15	6.44	59	15	118	99	0.46	11.4	15.1	60	1.010	1.012	1.011	1.011	1.130	0.387	0.321	0.391	0.360	0.033
22-SEP-94 16:37:56 500 PROCESS	11.28	1.40	6.7	3	1.796	179	198	186	3.12	5.44	59	15	119	100	0.44	12.6	13.8	60	1.006	1.006	1.013	1.006	1.137	0.377	0.315	0.394	0.365	0.029
22-SEP-94 16:38:56 500 PROCESS	11.32	1.41	6.7	3	1.793	179	198	186	3.10	5.39	59	15	119	99	0.40	13.8	11.4	60	1.006	1.012	1.009	1.009	1.140	0.387	0.313	0.396	0.371	0.012
22-SEP-94 16:39:56 500 PROCESS	11.30	1.41	6.7	3	1.794	179	198	186	3.10	6.47	59	15	119	99	0.44	15.1	11.4	60	1.001	1.010	1.006	1.010	1.137	0.382	0.319	0.392	0.375	0.030
22-SEP-94 16:40:56 500 PROCESS	11.21	1.40	6.7	3	1.807	179	197	186	3.10	6.74	60	15	115	99	0.44	13.9	12.6	60	1.011	1.017	1.010	1.007	1.134	0.376	0.332	0.381	0.369	0.035
22-SEP-94 16:41:56 500 PROCESS	11.26	1.40	6.7	3	1.804	179	197	186	3.15	5.74	59	15	115	99	0.38	12.6	13.9	60	1.018	1.013	1.018	1.002	1.143	0.382	0.315	0.387	0.371	0.039
22-SEP-94 16:42:56 500 PROCESS	11.24	1.40	6.8	3	1.799	179	197	186	3.12	6.30	59	15	117	99	0.46	11.3	13.9	60	1.011	1.012	1.009	1.007	1.144	0.380	0.320	0.386	0.371	0.030
22-SEP-94 16:43:56 500 PROCESS	11.32	1.41	6.8	3	1.799	179	198	185	3.26	6.17	59	15	118	99	0.47	12.6	12.6	60	1.005	1.013	1.013	1.007	1.143	0.383	0.320	0.387	0.369	0.048
22-SEP-94 16:44:56 500 PROCESS	11.28	1.41	6.8	4	1.796	178	197	185	3.16	5.07	59	16	118	99	0.42	13.9	11.4	60	1.005	1.009	1.007	1.002	1.131	0.377	0.324	0.393	0.361	0.012
22-SEP-94 16:45:56 500 PROCESS	11.26	1.40	6.8	4	1.792	176	197	184	3.15	5.38	60	18	119	99	0.44	15.1	11.4	60	1.012	1.016	1.012	1.012	1.133	0.380	0.327	0.392	0.361	0.022
22-SEP-94 16:46:56 500 PROCESS	11.26	1.40	6.8	3	1.792	176	197	182	3.17	5.50	59	18	119	100	0.46	17.1	11.4	60	1.009	1.007	1.013	1.017	1.133	0.380	0.325	0.383	0.360	0.011
22-SEP-94 16:47:56 500 PROCESS	11.28	1.41	6.8	3	1.803	176	197	182	3.20	5.07	59	18	116	99	0.47	17.6	11.3	60	1.004	1.012	1.015	1.009	1.137	0.382	0.321	0.387	0.364	0.050
22-SEP-94 16:48:56 500 PROCESS	11.28	1.41	6.9	2	1.806	177	197	183	3.15	6.60	59	17	115	100	0.43	17.4	11.3	60	1.013	1.007	1.005	1.010	1.136	0.387	0.321	0.391	0.376	0.072
22-SEP-94 16:49:56 500 PROCESS	11.29	1.41	6.9	2	1.799	178	197	185	3.19	6.17	60	16	117	99	0.41	15.1	12.5	60	1.005	1.005	1.010	1.007	1.145	0.381	0.320	0.389	0.369	0.030
22-SEP-94 16:50:56 500 PROCESS	11.19	1.39	6.9	2	1.799	179	197	185	3.15	6.12	60	15	118	100	0.42	14.0	15.1	60	1.010	1.016	1.020	1.015	1.132	0.382	0.322	0.386	0.370	0.016
22-SEP-94 16:51:56 500 PROCESS	11.32	1.41	6.9	2	1.796	179	197	185	3.16	6.06	60	15	118	99	0.43	12.6	15.0	60	1.010	1.004	1.017	1.011	1.133	0.380	0.321	0.381	0.374	0.067
22-SEP-94 16:52:56 500 PROCESS	11.23	1.40	6.9	2	1.794	179	197	185	3.16	6.50	59	15	119	99	0.43	11.4	15.0	60	1.007	1.009	1.007	1.010	1.137	0.392	0.320	0.387	0.372	0.042
22-SEP-94 16:53:56 500 PROCESS	11.27	1.40	6.9	2	1.794	179	197	186	3.12	6.12	59	15	119	99	0.39	12.5	13.9	60	1.006	1.006	1.012	1.013	1.138	0.387	0.327	0.386	0.368	0.034
22-SEP-94 16:54:56 500 PROCESS	11.26	1.40	6.9	2	1.792	179	197	185	3.13	5.72	59	15	119	100	0.42	13.9	12.7	60	1.004	1.012	1.015	1.007	1.137	0.385	0.320	0.400	0.369	0.035
22-SEP-94 16:55:56 500 PROCESS	11.26	1.40	6.9	2	1.803	179	198	185	3.19	6.20	59	16	116	99	0.40	15.1	11.4	60	1.001	1.010	1.012	1.001	1.140	0.386	0.315	0.386	0.371	0.039
22-SEP-94 16:56:56 500 PROCESS	11.30	1.41	7.0	3	1.809	179	198	185	3.23	6.12	59	16	114	100	0.42	12.6	12.7	60	1.007	1.013	1.009	1.015	1.142	0.389	0.316	0.385	0.372	0.037
22-SEP-94 16:57:56 500 PROCESS	11.31	1.41	7.0	3	1.800	180	198	187	3.16	6.02	59	15	117	99	0.42	11.3	14.0	60	1.007	1.016	1.016	1.006	1.138	0.387	0.318	0.380	0.366	0.044
22-SEP-94 16:58:56 500 PROCESS	11.26	1.40	7.0	3	1.800	180	198	187	3.15	6.19	60	14	118	100	0.42	12.4	15.1	60	1.004	1.012	1.016	1.005	1.137	0.387	0.322	0.386	0.371	0.034
22-SEP-94 16:59:56 500 PROCESS	11.27	1.41	7.0	3	1.796	180	197	187	3.13	5.90	59	14	118	99	0.45	12.7	12.6	60	0.999	1.011	1.010	1.020	1.132	0.380	0.321	0.389	0.365	0.040
22-SEP-94 17:00:56 500 PROCESS	11.24	1.40	7.0	3	1.795	180	197	187	3.16	5.09	60	14	119	99	0.41	15.2	11.4	60	1.006	1.015	1.015	1.009	1.142	0.381	0.316	0.383	0.361	0.040
22-SEP-94 17:01:56 500 PROCESS	11.19	1.39	7.1	3	1.791	179	197	185	3.19	6.54	59	15	119	100	0.42	13.9	11.3	60	1.004	1.015	1.013	1.019	1.132	0.387	0.321	0.387	0.360	0.024

22-SEP-94	17:04:56	300	PROCESS	11.32	1.41	7.1	2	1.001	170	197	103	3.14	5.42	59	17	116	99	0.46	13.9	15.1	60	1.009	1.012	1.015	1.013	1.130	0.301	0.322	0.307	0.360	0.045
22-SEP-94	17:05:55	300	PROCESS	11.21	1.40	7.1	2	1.797	170	197	104	3.20	5.43	59	17	117	99	0.42	13.9	17.6	60	1.009	1.010	1.012	1.001	1.129	0.302	0.324	0.302	0.369	0.046
22-SEP-94	17:06:[illegible]	124	FAIL	11.20	1.41	7.1	2	1.795	170	197	104	3.21	5.23	59	16	110	99	0.41	14.0	17.6	60	1.009	1.011	1.009	1.013	1.134	0.304	0.327	0.391	0.340	0.076
22-SEP-94	17:06:55	124	FAIL	0.00	0.00	7.1	2	0.000	160	177	161	0.92	5.06	51	15	110	99	0.00	14.0	17.6	5	0.063	0.061	0.060	0.063	1.049	0.067	0.043	0.061	0.070	0.011
22-SEP-94	17:07:56	124	FAIL	0.00	0.00	7.1	5	0.000	51	44	52	2.16	0.00	38	12	113	99	0.00	13.8	20.2	0	0.502	0.505	0.674	0.674	0.490	0.020	0.000	0.007	0.030	0.027
22-SEP-94	17:08:56	124	FAIL	0.00	0.00	7.1	7	0.000	17	25	23	0.00	0.00	6	0	111	99	0.00	13.9	20.2	-0	0.440	0.436	0.596	0.590	0.540	0.002	0.006	0.006	0.034	0.015
22-SEP-94	17:09:56	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	23	0.00	0.00	1	2	110	99	0.00	13.9	20.1	0	0.347	0.340	0.496	0.400	0.576	0.005	0.004	0.006	0.044	0.009
22-SEP-94	17:10:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	19	23	0.00	0.00	2	2	109	99	0.00	13.9	20.1	0	0.290	0.295	0.376	0.374	0.507	0.006	0.004	0.002	0.045	0.016
22-SEP-94	17:11:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	19	23	0.00	0.00	2	2	108	98	0.00	13.9	20.1	0	0.254	0.253	0.321	0.326	0.504	0.002	0.004	0.002	0.037	0.004
22-SEP-94	17:12:56	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	3	2	107	99	0.00	13.9	20.1	-0	0.216	0.217	0.201	0.274	0.500	0.002	0.006	0.005	0.040	0.012
22-SEP-94	17:13:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	23	0.00	0.00	3	2	106	99	0.00	13.9	20.1	-0	0.190	0.183	0.241	0.236	0.509	0.001	0.007	0.005	0.040	0.005
22-SEP-94	17:14:56	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	4	2	106	99	0.00	13.9	20.1	0	0.162	0.162	0.210	0.190	0.506	0.005	0.002	0.002	0.048	0.026
22-SEP-94	17:15:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	23	0.00	0.00	5	2	105	99	0.00	13.9	20.1	0	0.142	0.142	0.181	0.172	0.500	0.002	0.004	0.005	0.042	0.027
22-SEP-94	17:16:56	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	23	0.00	0.00	5	2	104	99	0.00	13.9	20.1	0	0.125	0.123	0.159	0.150	0.573	0.002	0.004	0.002	0.035	0.015
22-SEP-94	17:17:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	23	0.00	0.00	6	2	103	99	0.00	13.9	20.1	-0	0.121	0.120	0.150	0.133	0.559	0.004	0.006	0.002	0.043	0.011
22-SEP-94	17:18:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	23	0.00	0.00	6	2	103	99	0.00	14.0	20.1	-0	0.107	0.098	0.133	0.129	0.565	0.002	0.002	0.005	0.045	0.022
22-SEP-94	17:19:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	7	2	102	99	0.00	14.0	20.2	-0	0.084	0.080	0.125	0.114	0.552	0.004	0.005	0.004	0.032	0.018
22-SEP-94	17:20:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	7	2	102	99	0.00	13.9	20.2	0	0.081	0.076	0.112	0.115	0.554	0.006	0.005	0.004	0.042	0.017
22-SEP-94	17:21:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	7	2	101	99	0.00	13.8	20.2	0	0.057	0.057	0.103	0.090	0.545	0.004	0.006	0.005	0.043	0.017
22-SEP-94	17:22:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	8	2	100	99	0.00	13.8	20.1	0	0.050	0.035	0.084	0.077	0.546	0.005	0.004	0.004	0.040	0.016
22-SEP-94	17:23:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	8	2	100	99	0.00	13.9	20.2	-0	0.039	0.037	0.072	0.068	0.535	0.002	0.004	0.002	0.044	0.022
22-SEP-94	17:24:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	8	2	99	99	0.00	13.9	20.1	0	0.031	0.027	0.040	0.042	0.535	0.006	0.005	0.004	0.051	0.017
22-SEP-94	17:25:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	8	2	99	99	0.00	13.9	20.1	-0	0.023	0.023	0.042	0.037	0.525	0.004	0.005	0.005	0.042	0.016
22-SEP-94	17:26:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	21	0.00	0.00	9	2	98	98	0.00	13.8	20.1	-0	0.026	0.022	0.031	0.022	0.525	0.002	0.005	0.002	0.043	0.013
22-SEP-94	17:27:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	16	22	0.00	0.00	9	2	98	99	0.00	13.8	20.1	0	0.020	0.021	0.034	0.024	0.513	0.001	0.006	0.005	0.044	0.007
22-SEP-94	17:28:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	21	0.00	0.00	9	2	97	99	0.00	13.9	20.2	-0	0.015	0.016	0.027	0.026	0.504	0.005	0.002	0.002	0.049	0.023
22-SEP-94	17:29:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	9	2	97	99	0.00	13.9	20.1	0	0.010	0.011	0.022	0.010	0.505	0.004	0.005	0.005	0.046	0.011
22-SEP-94	17:30:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	9	2	96	99	0.00	13.9	20.2	-0	0.015	0.015	0.017	0.020	0.497	0.002	0.006	0.006	0.042	0.022
22-SEP-94	17:31:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	2	96	99	0.00	13.9	20.0	-0	0.016	0.016	0.015	0.011	0.473	0.004	0.007	0.002	0.040	0.015
22-SEP-94	17:32:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	9	2	95	99	0.00	13.9	20.1	-0	0.016	0.017	0.016	0.015	0.320	0.002	0.004	0.004	0.045	0.015
22-SEP-94	17:33:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	2	95	99	0.00	13.9	20.1	-0	0.007	0.015	0.015	0.011	0.193	0.009	0.007	0.004	0.045	0.032
22-SEP-94	17:34:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	2	94	99	0.00	13.9	20.2	-0	0.015	0.015	0.017	0.016	0.125	0.007	0.002	0.004	0.040	0.029
22-SEP-94	17:35:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	9	2	94	98	0.00	13.9	20.1	-0	0.016	0.015	0.015	0.013	0.082	0.002	0.006	0.004	0.044	0.016
22-SEP-94	17:36:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	9	1	93	99	0.00	13.9	20.2	-0	0.010	0.011	0.016	0.010	0.056	0.004	0.005	0.004	0.043	0.017
22-SEP-94	17:37:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	9	1	93	98	0.00	14.0	20.2	-0	0.015	0.015	0.016	0.013	0.038	0.006	0.004	0.002	0.044	0.028
22-SEP-94	17:38:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	9	1	93	98	0.00	13.9	20.2	-0	0.016	0.015	0.013	0.010	0.033	0.002	0.004	0.004	0.039	0.017
22-SEP-94	17:39:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	2	92	98	0.00	14.0	20.1	-0	0.012	0.018	0.015	0.013	0.024	0.004	0.005	0.005	0.045	0.010
22-SEP-94	17:40:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	17	22	0.00	0.00	9	1	92	98	0.00	13.9	20.1	-0	0.012	0.015	0.013	0.009	0.022	0.006	0.005	0.002	0.045	0.010
22-SEP-94	17:41:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	1	91	98	0.00	13.9	20.1	-0	0.012	0.015	0.010	0.016	0.010	0.004	0.004	0.005	0.044	0.020
22-SEP-94	17:42:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	17	21	0.00	0.00	9	1	91	98	0.00	13.9	20.1	-0	0.015	0.012	0.010	0.018	0.011	0.004	0.006	0.004	0.045	0.022
22-SEP-94	17:43:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	17	22	0.00	0.00	9	1	91	98	0.00	13.9	20.1	-0	0.012	0.011	0.007	0.015	0.011	0.005	0.005	0.006	0.045	0.013
22-SEP-94	17:44:55	124	FAIL	0.00	0.00	7.1	7	0.000	17	18	22	0.00	0.00	9	1	90	97	0.00	13.8	20.2	-0	0.013	0.013	0.016	0.012	0.009	0.006	0.005	0.005	0.043	0.031
22-SEP-94	17:45:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	1	90	98	0.00	14.0	20.1	-0	0.011	0.009	0.012	0.011	0.002	0.005	0.007	0.004	0.046	0.024
22-SEP-94	17:46:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	1	90	97	0.00	14.0	20.2	-0	0.011	0.009	0.012	0.013	0.006	0.004	0.007	0.002	0.043	0.015
22-SEP-94	17:47:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	21	0.00	0.00	9	1	89	97	0.00	13.8	20.2	-1	0.010	0.007	0.015	0.010	0.001	0.004	0.006	0.004	0.045	0.007
22-SEP-94	17:48:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	2	89	97	0.00	13.9	20.2	-0	0.012	0.010	0.009	0.013	0.001	0.004	0.002	0.005	0.042	0.029
22-SEP-94	17:49:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	22	0.00	0.00	9	2	89	97	0.00	13.8	20.2	-0	0.012	0.009	0.012	0.010	0.000	0.004	0.005	0.005	0.044	0.007
22-SEP-94	17:50:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	88	97	0.00	13.9	20.1	-0	0.011	0.009	0.010	0.006	0.001	0.002	0.005	0.005	0.034	0.021
22-SEP-94	17:51:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	22	0.00	0.00	9	2	88	97	0.00	13.9	20.2	-0	0.015	0.012	0.010	0.009	0.001	0.005	0.005	0.004	0.049	0.020
22-SEP-94	17:52:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	88	97	0.00	14.0	20.1	-0	0.011	0.011	0.009	0.006	0.001	0.004	0.005	0.004	0.040	0.028
22-SEP-94	17:53:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	18	21	0.00	0.00	9	2	87	97	0.00	13.9	20.1	-0	0.009	0.006	0.010	0.011	0.000	0.002	0.005	0.004	0.040	0.033
22-SEP-94	17:54:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	87	97	0.00	13.9	20.2	-0	0.012	0.013	0.011	0.009	0.000	0.004	0.005	0.004	0.043	0.033
22-SEP-94	17:55:54	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	87	97	0.00	13.9	20.1	-0	0.011	0.011	0.009	0.007	0.000	0.004	0.005	0.004	0.040	0.024
22-SEP-94	17:56:54	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	86	97	0.00	13.9	20.1	-0	0.007	0.011	0.009	0.010	0.000	0.004	0.004	0.002	0.045	0.024
22-SEP-94	17:57:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	86	96	0.00	13.8	20.2	-0	0.009	0.011	0.015	0.006	0.000	0.005	0.006	0.002	0.040	0.024
22-SEP-94	17:58:54	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	86	96	0.00	13.8	20.2	-0	0.015	0.007	0.007	0.012	0.000	0.005	0.005	0.004	0.050	0.015
22-SEP-94	17:59:54	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	86	97	0.00	13.9	20.1	-0	0.007	0.010	0.012	0.007	0.000	0.007	0.006	0.001	0.049	0.022
22-SEP-94	18:00:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	9	2	86	96	0.00	13.8	20.1	-0	0.009	0.007	0.009	0.006	0.000	0.037	0.006	0.005	0.049	0.028
22-SEP-94	18:01:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	8	2	85	96	0.00	13.9	20.2	-0	0.012	0.012	0.011	0.011	0.000	0.006	0.005	0.005	0.051	0.022
22-SEP-94	18:02:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	8	2	85	96	0.00	14.0	20.2	-0	0.013	0.007	0.011	0.007	0.000	0.002	0.004	0.001	0.046	0.006
22-SEP-94	18:03:54	124	FAIL	0.00	0.00	7.1	7	0.000	17	17	21	0.00	0.00	8	1	85	96	0.00	13.8	20.1	-0	0.013	0.009	0.011	0.010	0.000	0.002	0.004	0.002	0.046	0.020
22-SEP-94	18:04:55	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	8	2	85	96	0.00	13.9	20.2	-0	0.009	0.010	0.335	0.007	0.000	0.004	0.007	0.004	0.012	0.010
22-SEP-94	18:05:54	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	8	1	84	96	0.00	13.8	20.1	-0	0.009	0.009	0.006	0.009	0.000	0.005	0.006	0.001	0.043	0.024
22-SEP-94	18:06:54	124	FAIL	0.00	0.00	7.1	7	0.000	16	17	21	0.00	0.00	8	1	84	96	0.00	13.9	20.2	-0	0.010	0.009	0.013	0.036	0.000	0.304	0.305	0.005	0.037	0.026

FACILITY DI WATER IS SHUTOFF OVERNIGHT

LFSPE OXYGEN GENERATION

DATE	TIME	AMDU	STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-606	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP707 PSID	DP708 PSID	DP749-1 PSID	DP749-2 PSID	T762-1 F	T736-1 F	CALC745 GPM	LEV605-1 CM IN	LEV605-2 CM IN	I766 AMPS	M2V760-1 V	M2V760-2 V	M2V760-3 V	M2V760-4 V	M2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I908 A
23-SEP-94	08:30:20	500	OFF	0.00	0.00	7.1	7	0.000	15	18	17	0.41	0.00	2	4	72	73	0.00	11.3	16.5	-1	0.007	0.007	0.007	0.004	0.001	0.000	0.004	0.002	0.039	0.022
23-SEP-94	08:31:20	500	PURGE	0.00	0.00	7.1	7	0.140	14	17	23	2.00	0.00	1	5	72	73	0.07	12.6	15.2	-1	0.954	0.962	0.903	0.967	1.110	0.575	0.414	0.228	0.422	0.200
23-SEP-94	08:32:20	500	PURGE	0.00	0.00	7.1	6	0.141	14	18	23	1.96	0.00	0	5	72	73	0.00	12.6	15.2	-1	1.140	1.134	1.147	1.139	1.145	0.079	0.174	0.050	0.144	0.082
23-SEP-94	08:33:20	500	PURGE	0.00	0.00	7.1	6	0.142	14	18	22	2.03	0.00	0	5	72	73	0.05	12.4	15.2	-0	1.176	1.170	1.181	1.171	1.153	0.055	0.057	0.034	0.082	0.066
23-SEP-94	08:34:20	500	PURGE	0.00	0.00	7.1	6	0.143	14	17	22	2.05	0.00	0	5	72	73	0.14	12.4	15.1	-0	1.186	1.184	1.188	1.184	1.149	0.042	0.037	0.018	0.071	0.049
23-SEP-94	08:35:20	500	PURGE	0.00	0.00	7.1	6	0.147	14	18	22	2.05	0.00	0	5	72	73	0.13	12.4	15.1	-1	1.190	1.193	1.193	1.183	1.150	0.030	0.031	0.016	0.057	0.024
23-SEP-94	08:36:20	500	PURGE	0.00	0.00	7.1	6	0.146	15	17	22	2.10	0.00	0	4	72	73	0.00	12.6	15.1	-0	1.193	1.195	1.190	1.187	1.159	0.034	0.017	0.016	0.067	0.031
23-SEP-94	08:37:20	500	PURGE	0.00	0.00	7.1	6	0.148	15	18	21	2.02	0.00	0	4	72	73	0.07	12.6	15.2	-1	1.193	1.193	1.195	1.187	1.150	0.020	0.024	0.015	0.050	0.020
23-SEP-94	08:38:19	500	PURGE	0.00	0.00	7.1	6	0.151	14	18	21	2.00	0.00	0	4	72	73	0.00	12.6	15.1	-0	1.200	1.197	1.194	1.186	1.150	0.021	0.021	0.013	0.060	0.029
23-SEP-94	08:39:20	500	PURGE	0.00	0.00	7.1	6	0.151	14	18	17	0.90	0.00	0	4	72	73	0.00	12.5	15.1	-0	1.190	1.188	1.195	1.190	1.155	0.015	0.020	0.012	0.055	0.039
23-SEP-94	08:40:20	500	PURGE	0.00	0.00	7.1	6	0.150	14	17	15	0.33	0.00	0	5	72	73	0.00	12.7	15.1	-0	1.190	1.195	1.199	1.180	1.155	0.023	0.015	0.011	0.053	0.050
23-SEP-94	08:41:20	500	PURGE	0.00	0.00	7.1	6	0.153	14	18	15	0.24	0.00	0	4	72	73	0.00	15.2	15.2	-1	1.193	1.199	1.201	1.193	1.153	0.020	0.021	0.010	0.040	0.037
23-SEP-94	08:42:20	500	PURGE	0.00	0.00	7.1	6	0.152	15	17	16	0.24	0.00	0	4	72	73	0.00	12.6	15.2	-1	1.200	1.190	1.195	1.197	1.153	0.017	0.015	0.015	0.059	0.024
23-SEP-94	08:43:20	500	PURGE	0.00	0.00	7.1	6	0.153	15	18	17	0.22	0.00	0	4	72	73	0.00	13.9	15.2	-1	1.189	1.195	1.194	1.197	1.140	0.023	0.009	0.009	0.057	0.062
23-SEP-94	08:44:20	500	PURGE	0.00	0.00	7.1	6	0.155	15	17	17	0.20	0.00	0	4	72	73	0.00	13.2	15.1	-1	1.195	1.194	1.201	1.193	1.151	0.023	0.013	0.011	0.056	0.031
23-SEP-94	08:45:20	500	PURGE	0.00	0.00	7.1	7	0.154	15	17	17	0.21	0.00	0	4	72	73	0.00	14.0	15.2	-1	1.197	1.201	1.190	1.197	1.154	0.010	0.017	0.009	0.054	0.024
23-SEP-94	08:46:20	500	PURGE	0.00	0.00	7.1	7	0.156	15	18	17	0.23	0.00	0	4	72	73	0.00	14.0	15.1	-1	1.197	1.195	1.195	1.195	1.155	0.020	0.013	0.011	0.059	0.051
23-SEP-94	08:47:20	500	PURGE	0.00	0.00	7.1	7	0.000	15	18	17	0.22	0.00	0	4	72	73	0.00	14.0	15.2	-0	1.190	1.192	1.109	1.103	1.151	0.010	0.006	0.006	0.045	0.035
23-SEP-94	08:48:20	500	PURGE	0.00	0.00	7.1	7	0.155	15	17	17	0.25	0.00	0	4	72	73	0.00	12.7	15.2	-0	1.200	1.190	1.190	1.194	1.150	0.010	0.012	0.007	0.051	0.051
23-SEP-94	08:49:20	500	PURGE	0.00	0.00	7.1	7	0.154	15	17	17	0.27	0.00	0	4	72	73	0.00	12.6	15.1	-1	1.199	1.193	1.200	1.197	1.164	0.013	0.017	0.013	0.051	0.035
23-SEP-94	08:50:20	500	PURGE	0.00	0.00	7.1	7	0.155	15	17	17	0.19	0.00	0	4	71	73	0.00	12.6	15.1	-1	1.199	1.190	1.201	1.194	1.150	0.010	0.012	0.013	0.051	0.031
23-SEP-94	08:51:19	500	OFF	0.00	0.00	7.1	7	0.000	15	18	17	0.21	0.00	0	4	72	73	0.00	12.7	15.1	-0	1.171	1.168	1.176	1.173	1.127	0.006	0.007	0.004	0.039	0.010
23-SEP-94	08:52:20	500	OFF	0.00	0.00	7.1	7	0.000	15	17	25	1.07	0.00	0	3	73	73	0.00	15.0	15.3	-0	1.070	1.066	1.084	1.096	1.053	0.004	0.004	0.002	0.035	0.030
23-SEP-94	08:53:19	500	PURGE	0.00	0.00	7.1	7	0.152	15	17	28	2.39	0.00	0	3	72	73	0.34	15.1	15.0	-1	1.190	1.201	1.195	1.193	1.149	0.020	0.017	0.013	0.056	0.027
23-SEP-94	08:54:19	500	PURGE	0.00	0.00	7.1	6	0.155	15	17	27	2.39	0.00	0	4	73	73	0.40	15.1	15.0	-1	1.200	1.192	1.201	1.192	1.151	0.015	0.011	0.010	0.056	0.040
23-SEP-94	08:55:19	500	PURGE	0.00	0.00	7.1	6	0.153	15	17	27	2.40	0.00	0	4	73	73	0.34	15.1	15.2	-1	1.200	1.199	1.197	1.200	1.154	0.015	0.016	0.011	0.046	0.046
23-SEP-94	08:56:19	500	PURGE	0.00	0.00	7.1	6	0.154	14	17	27	2.52	0.00	0	4	73	73	0.35	15.1	15.2	-1	1.195	1.192	1.199	1.193	1.150	0.016	0.011	0.009	0.053	0.032
23-SEP-94	08:57:20	500	PURGE	0.00	0.00	7.1	6	0.153	14	18	27	2.40	0.00	0	4	73	73	0.35	15.1	15.1	-1	1.200	1.190	1.200	1.201	1.140	0.013	0.022	0.010	0.051	0.042
23-SEP-94	08:58:19	500	PURGE	0.00	0.00	7.1	6	0.153	14	17	27	2.56	0.00	0	4	73	73	0.32	15.2	15.1	-1	1.200	1.199	1.199	1.195	1.145	0.021	0.010	0.009	0.050	0.022
23-SEP-94	08:59:19	500	PURGE	0.00	0.00	7.1	6	0.153	14	17	27	2.50	0.00	0	4	73	74	0.33	15.1	15.2	-1	1.194	1.200	1.197	1.193	1.155	0.015	0.010	0.011	0.053	0.071
23-SEP-94	09:00:19	500	PURGE	0.00	0.00	7.1	6	0.150	14	17	27	2.40	0.00	0	4	73	73	0.36	15.2	15.1	-0	1.190	1.194	1.193	1.201	1.150	0.013	0.013	0.006	0.049	0.040
23-SEP-94	09:01:19	500	PURGE	0.00	0.00	7.1	6	0.151	15	17	27	2.52	0.00	0	5	73	73	0.32	15.2	15.2	-1	1.190	1.194	1.200	1.194	1.156	0.016	0.016	0.011	0.054	0.039
23-SEP-94	09:02:19	500	PURGE	0.00	0.00	7.1	6	0.152	14	17	27	2.54	0.00	0	4	74	73	0.37	15.1	15.1	-0	1.195	1.205	1.199	1.190	1.154	0.010	0.016	0.013	0.045	0.050
23-SEP-94	09:03:19	500	PURGE	0.00	0.00	7.1	6	0.149	14	17	27	2.56	0.00	0	4	73	73	0.35	15.2	15.2	-0	1.194	1.194	1.195	1.109	1.155	0.019	0.013	0.011	0.044	0.053
23-SEP-94	09:04:19	500	PURGE	0.00	0.00	7.1	6	0.149	15	18	27	2.49	0.00	0	4	73	73	0.36	15.1	15.1	-1	1.190	1.109	1.200	1.235	1.155	0.015	0.015	0.007	0.057	0.047
23-SEP-94	09:05:19	500	PURGE	0.00	0.00	7.1	6	0.149	15	17	27	2.51	0.00	0	4	73	74	0.35	15.1	15.2	-1	1.205	1.203	1.204	1.190	1.153	0.017	0.007	0.010	0.051	0.033
23-SEP-94	09:06:19	500	PURGE	0.00	0.00	7.1	5	0.150	15	18	27	2.45	0.00	0	4	73	73	0.31	15.1	15.2	-1	1.194	1.190	1.190	1.193	1.158	0.017	0.015	0.009	0.056	0.010
23-SEP-94	09:07:19	500	PURGE	0.00	0.00	7.1	6	0.148	15	17	27	2.49	0.00	0	4	74	73	0.37	15.1	15.2	-0	1.201	1.197	1.190	1.204	1.150	0.010	0.016	0.007	0.044	0.043
23-SEP-94	09:08:19	500	PURGE	0.00	0.00	7.1	6	0.146	15	17	27	2.47	0.00	0	4	74	74	0.31	15.1	15.1	-1	1.201	1.205	1.201	1.197	1.159	0.020	0.016	0.011	0.059	0.035
23-SEP-94	09:09:19	500	PURGE	0.00	0.00	7.1	6	0.149	15	17	27	2.45	0.00	0	4	74	73	0.37	15.1	15.1	-1	1.201	1.197	1.203	1.199	1.155	0.016	0.013	0.005	0.040	0.043
23-SEP-94	09:10:19	500	PURGE	0.00	0.00	7.1	6	0.149	15	18	27	2.37	0.00	0	4	74	74	0.30	15.1	15.2	-0	1.195	1.197	1.203	1.193	1.107	0.020	0.021	0.012	0.040	0.043
23-SEP-94	09:11:19	500	PURGE	0.00	0.00	7.1	6	0.147	15	17	27	2.39	0.00	0	4	74	74	0.33	15.1	15.0	-0	1.194	1.190	1.201	1.197	1.151	0.015	0.015	0.012	0.053	0.044
23-SEP-94	09:12:19	500	PURGE	0.00	0.00	7.1	6	0.147	15	17	26	2.35	0.00	0	4	74	74	0.37	15.2	15.2	-0	1.195	1.194	1.204	1.200	1.154	0.017	0.021	0.010	0.054	0.031
23-SEP-94	09:13:19	500	PURGE	0.00	0.00	7.1	6	0.146	15	18	26	2.46	0.00	0	4	74	73	0.30	15.1	15.1	-1	1.195	1.197	1.199	1.190	1.156	0.013	0.010	0.012	0.053	0.030
23-SEP-94	09:14:19	500	PURGE	0.00	0.00	7.1	6	0.145	15	17	26	2.54	0.00	0	4	74	73	0.33	15.2	15.1	-1	1.197	1.195	1.190	1.200	1.150	0.018	0.017	0.009	0.053	0.050
23-SEP-94	09:15:19	500	PURGE	0.00	0.00	7.1	6	0.147	15	17	25	2.54	0.00	0	4	74	74	0.35	15.1	15.1	-0	1.190	1.193	1.203	1.192	1.155	0.015	0.013	0.012	0.049	0.046
23-SEP-94	09:16:19	500	PURGE	0.00	0.00	7.1	6	0.146	15	17	25	2.52	0.00	0	4	74	74	0.30	15.2	15.2	-1	1.197	1.200	1.194	1.201	1.147	0.016	0.015	0.007	0.051	0.031
23-SEP-94	09:17:19	500	PURGE	0.00	0.00	7.1	6	0.146	15	18	25	2.57	0.00	0	4	75	73	0.34	15.2	15.2	-1	1.201	1.190	1.201	1.197	1.155	0.012	0.013	0.011	0.054	0.050
23-SEP-94	09:18:19	500	PURGE	0.00	0.00	7.1	5	0.147	14	17	25	2.46	0.00	0	4	75	73	0.34	15.1	15.0	-1	1.203	1.199	1.203	1.194	1.151	0.012	0.016	0.009	0.049	0.029
23-SEP-94	09:19:19	500	PURGE	0.00	0.00	7.1	5	0.144	15	17	25	2.43	0.00	0	3	74	74	0.33	15.1	15.2	-1	1.195	1.192	1.195	1.197	1.151	0.012	0.010	0.006	0.050	0.049
23-SEP-94	09:20:19	500	PURGE	0.00	0.00	7.1	5	0.145	15	17	24	2.43	0.00	0	3	74	74	0.35	15.1	15.2	-1	1.190	1.193	1.195	1.193	1.151	0.010	0.020	0.005	0.059	0.046
23-SEP-94	09:21:19	500	PURGE	0.00	0.00	7.1	4	0.146	15	17	24	2.49	0.00	0	3	75	74	0.34	15.1	16.4	-1	1.200	1.190	1.199	1.200	1.160	0.016	0.012	0.009	0.053	0.065
23-SEP-94	09:22:19	500	PURGE	0.00	0.00	7.1	4	0.143	15	21	25	2.41	0.00	3	7	74	73	0.32	15.2	16.4	-1	1.203	1.199	1.200	1.198	1.140	0.010	0.010	0.011	0.043	0.039
23-SEP-94	09:23:19	500	PURGE	0.00	0.00	7.1	4	0.144	15	21	24	2.46	0.00	3	8	75	73	0.36	15.1	16.4	-1	1.201	1.190	1.201	1.193	1.143	0.017	0.010	0.011	0.044	0.050
23-SEP-94	09:24:19	500	PURGE	0.00	0.00	7.1	3	0.142	15	25	23	2.47	0.00	8	11	75	73	0.33	15.1	16.4	-1	1.195	1.205	1.199	1.198	1.150	0.013	0.010	0.010	0.042	0.033
23-SEP-94	09:25:19	500	PURGE	0.00	0.00	7.1	3	0.142	15	36	24	2.47	0.00	19	22	75	74	0.39	15.1	16.4	-0	1.203	1.199	1.195	1.192	1.154	0.016	0.013	0.009	0.053	0.035
23-SEP-94	09:26:19	500	PURGE	0.00	0.00	7.1	3	0.144	15	40	25	2.49	0.00	30	31	75	74	0.29	15.2	16.4	-1	1.204	1.199	1.199	1.203	1.156	0.021	0.011	0.011	0.051	0.070
23-SEP-94	09:26:59	230	FAIL	2.41	0.30	7.1	4	1.409	17	55	23	2.15	3.21	36	39	75	74	0.28	11.4	16.4	13	1.192	1.184	1.190	1.190	1.105	0.070	0.024	0.017	0.062	0.074
23-SEP-94	09:27:18	500	OFF	0.00	0.00	7.1	5	0.000	17	49	22	1.94	0.32	31	33	75	73	0.32	11.4	16.4	-0	1.095	1.110	1.160	1.161	0.916	0.015	0.000	0.004	0.039	0.020
23-SEP-94	[illegible]	500	PURGE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

23-SEP-94 09:30:17 500 PURGE	0.00	0.00	7.1	5	1.420	14	18	15	0.27	0.00	1	4	74	74	0.00	[illegible]	16.4	-0	1.212	1.210	[illegible]	[illegible]	1.157	[illegible]	[illegible]	[illegible]	0.055	0.022
23-SEP-94 09:31:19 500 PURGE	0.00	0.00	7.1	5	1.415	15	18	16	0.26	0.00	2	4	74	74	0.00	15.1	16.3	-0	1.210	1.212	1.210	1.209	1.151	0.031	0.012	0.010	0.050	0.031
23-SEP-94 09:32:19 500 PURGE	0.00	0.00	7.1	5	1.413	16	18	16	0.20	0.00	2	4	74	74	0.00	14.9	16.4	-0	1.214	1.212	1.214	1.209	1.149	0.020	0.016	0.010	0.046	0.023
23-SEP-94 09:33:19 500 PURGE	0.00	0.00	7.1	5	1.408	16	18	16	0.26	0.00	2	3	74	73	0.00	12.6	16.5	-0	1.210	1.210	1.216	1.210	1.150	0.027	0.012	0.010	0.053	0.034
23-SEP-94 09:34:10 500 PURGE	0.00	0.00	7.1	6	1.400	17	18	17	0.27	0.00	2	3	74	74	0.00	15.1	16.4	-0	1.211	1.216	1.210	1.209	1.147	0.023	0.017	0.007	0.050	0.051
23-SEP-94 09:35:19 500 PURGE	0.00	0.00	7.1	6	1.405	17	18	17	0.20	0.00	3	3	74	74	0.00	10.1	16.4	-0	1.214	1.212	1.212	1.211	1.145	0.020	0.021	0.017	0.053	0.042
23-SEP-94 09:36:10 500 PURGE	0.00	0.00	7.1	6	1.404	15	18	27	2.71	0.00	3	4	75	74	0.40	15.1	16.4	-0	1.215	1.210	1.208	1.214	1.147	0.020	0.015	0.016	0.049	0.020
23-SEP-94 09:37:10 500 PURGE	0.00	0.00	7.1	6	1.400	15	17	27	2.79	0.00	3	4	75	74	0.30	15.1	16.4	0	1.209	1.206	1.206	1.212	1.149	0.010	0.015	0.016	0.056	0.059
23-SEP-94 09:38:19 500 PURGE	0.00	0.00	7.1	6	1.390	15	18	26	2.83	0.00	3	4	75	74	0.36	15.2	16.4	0	1.210	1.217	1.215	1.208	1.140	0.015	0.015	0.020	0.053	0.023
23-SEP-94 09:39:19 500 PURGE	0.00	0.00	7.1	6	1.387	15	18	27	2.92	0.00	3	4	75	74	0.33	15.1	16.4	-0	1.211	1.215	1.210	1.206	1.147	0.013	0.012	0.017	0.039	0.039
23-SEP-94 09:40:10 500 PURGE	0.00	0.00	7.1	6	1.370	15	18	27	2.89	0.00	4	4	75	74	0.32	15.1	16.4	0	1.212	1.215	1.214	1.211	1.153	0.016	0.010	0.022	0.053	0.029
23-SEP-94 09:41:10 500 PURGE	0.00	0.00	7.1	6	1.371	15	18	26	2.92	0.00	4	4	75	74	0.33	15.1	16.3	0	1.214	1.210	1.208	1.209	1.147	0.009	0.009	0.020	0.045	0.051
23-SEP-94 09:42:19 500 PURGE	0.00	0.00	7.1	6	1.360	15	17	26	2.94	0.00	4	4	75	75	0.32	15.0	16.4	0	1.212	1.210	1.208	1.206	1.144	0.012	0.017	0.017	0.046	0.034
23-SEP-94 09:43:10 500 PURGE	0.00	0.00	7.1	6	1.349	15	18	25	2.91	0.00	4	4	75	74	0.34	15.1	16.5	-0	1.209	1.215	1.212	1.208	1.153	0.013	0.011	0.013	0.051	0.043
23-SEP-94 09:44:10 500 PURGE	0.00	0.00	7.1	6	1.332	16	18	25	2.91	0.00	4	4	75	74	0.31	15.2	16.4	-0	1.214	1.220	1.219	1.212	1.147	0.012	0.011	0.020	0.045	0.022
23-SEP-94 09:45:10 500 PURGE	0.00	0.00	7.1	5	1.317	15	17	25	2.87	0.00	4	4	75	74	0.30	15.1	16.4	-0	1.212	1.219	1.212	1.215	1.150	0.015	0.011	0.017	0.040	0.015
23-SEP-94 09:46:10 500 PURGE	0.00	0.00	7.1	5	1.306	15	18	25	2.78	0.00	4	4	75	74	0.37	15.1	16.5	-0	1.214	1.210	1.208	1.208	1.153	0.015	0.015	0.016	0.049	0.032
23-SEP-94 09:47:10 500 PURGE	0.00	0.00	7.1	4	1.290	15	17	25	2.72	0.00	4	4	75	74	0.36	15.1	16.4	-0	1.215	1.209	1.209	1.208	1.142	0.012	0.011	0.020	0.039	0.026
23-SEP-94 09:48:10 500 PURGE	0.00	0.00	7.1	4	1.280	15	19	25	2.72	0.00	6	5	75	74	0.29	15.1	16.4	-0	1.215	1.219	1.211	1.210	1.151	0.012	0.012	0.009	0.048	0.009
23-SEP-94 09:49:10 500 PURGE	0.00	0.00	7.1	4	1.260	15	21	24	2.42	0.00	8	7	76	75	0.35	15.2	16.4	-0	1.211	1.215	1.215	1.205	1.147	0.011	0.010	0.007	0.037	0.040
23-SEP-94 09:50:10 500 PURGE	0.00	0.00	7.1	3	1.255	15	21	23	2.43	0.00	8	7	76	75	0.36	15.1	16.5	-0	1.214	1.214	1.212	1.205	1.153	0.012	0.011	0.010	0.053	0.032
23-SEP-94 09:51:10 500 PURGE	0.00	0.00	7.1	3	1.242	15	31	24	2.45	0.00	19	10	76	74	0.34	15.2	16.4	-0	1.219	1.210	1.211	1.210	1.145	0.012	0.015	0.009	0.030	0.020
23-SEP-94 09:52:10 500 PURGE	0.00	0.00	7.1	3	1.227	15	43	24	2.60	0.00	30	29	76	75	0.33	15.1	16.4	-0	1.214	1.211	1.216	1.208	1.151	0.011	0.017	0.011	0.044	0.030
23-SEP-94 09:53:10 500 PROCESS-VENT	1.72	0.21	7.1	3	1.601	15	54	21	2.21	3.02	36	39	76	75	0.31	15.1	16.4	11	1.210	1.209	1.210	1.209	1.127	0.020	0.017	0.009	0.051	0.173
23-SEP-94 09:54:10 500 PROCESS-VENT	4.39	0.79	7.1	3	1.727	25	63	30	1.99	1.17	43	38	77	74	0.28	15.1	16.4	33	1.200	1.193	1.205	1.190	1.109	0.021	0.020	0.010	0.079	0.192
23-SEP-94 09:55:10 500 PROCESS-VENT	10.23	1.27	7.1	3	1.912	45	74	44	2.08	2.30	52	33	79	75	0.31	15.1	16.4	56	1.215	1.211	1.219	1.209	1.121	0.010	0.023	0.012	0.063	0.186
23-SEP-94 09:56:10 500 PROCESS-VENT	11.42	1.42	7.1	3	2.017	41	84	65	2.19	2.31	50	23	81	75	0.33	15.2	16.4	60	1.217	1.214	1.216	1.212	1.145	0.012	0.020	0.010	0.057	0.050
23-SEP-94 09:57:10 500 PROCESS-VENT	11.41	1.42	7.1	2	2.022	76	95	88	2.16	2.15	62	19	86	75	0.34	11.4	16.5	60	1.231	1.227	1.221	1.230	1.137	0.017	0.031	0.012	0.070	0.095
23-SEP-94 09:58:10 500 PROCESS-VENT	11.44	1.43	7.1	3	2.021	84	104	89	2.08	4.59	64	19	88	75	0.33	12.6	11.9	60	1.222	1.211	1.215	1.206	1.130	0.033	0.066	0.033	0.082	0.020
23-SEP-94 09:59:10 500 PROCESS-VENT	11.38	1.42	7.1	3	2.010	93	113	98	2.12	6.60	65	20	90	75	0.33	13.9	11.3	60	1.220	1.210	1.219	1.203	1.140	0.030	0.053	0.033	0.093	0.056
23-SEP-94 10:00:10 500 PROCESS-VENT	11.41	1.42	7.1	4	2.013	101	123	106	2.14	7.96	66	21	92	75	0.32	12.6	12.6	60	1.201	1.197	1.210	1.200	1.153	0.042	0.078	0.030	0.106	0.023
23-SEP-94 10:01:10 500 PROCESS-VENT	11.37	1.42	7.1	3	2.004	109	132	114	2.12	8.00	66	21	93	75	0.36	12.5	13.9	60	1.193	1.187	1.190	1.170	1.136	0.056	0.085	0.055	0.110	0.051
23-SEP-94 10:02:10 500 PROCESS-VENT	11.37	1.42	7.1	3	1.995	117	140	122	2.20	8.30	66	21	95	75	0.37	12.6	14.4	60	1.180	1.176	1.182	1.177	1.140	0.067	0.090	0.067	0.122	0.027
23-SEP-94 10:03:10 500 PROCESS-VENT	11.34	1.41	7.1	3	1.987	125	147	130	2.19	8.16	67	21	97	75	0.36	12.5	15.2	60	1.179	1.178	1.178	1.175	1.143	0.078	0.111	0.090	0.145	0.059
23-SEP-94 10:04:10 500 PROCESS-VENT	11.34	1.41	7.1	2	1.988	135	154	140	2.16	8.21	67	18	98	75	0.38	11.4	15.1	60	1.170	1.162	1.164	1.161	1.142	0.082	0.123	0.094	0.172	0.040
23-SEP-94 10:05:10 500 PROCESS-VENT	11.29	1.41	7.1	3	1.983	142	161	147	2.22	7.59	66	17	96	75	0.34	12.6	11.4	60	1.164	1.149	1.159	1.155	1.149	0.101	0.143	0.111	0.176	0.029
23-SEP-94 10:06:10 500 PROCESS-VENT	11.35	1.41	7.1	3	1.979	148	167	154	2.20	7.55	67	17	100	75	0.37	14.1	11.4	60	1.156	1.140	1.149	1.143	1.154	0.111	0.154	0.121	0.197	0.031
23-SEP-94 10:07:10 500 PROCESS-VENT	11.28	1.41	7.1	4	1.969	151	173	156	2.27	7.57	67	20	101	75	0.36	13.9	12.6	60	1.144	1.139	1.136	1.133	1.145	0.120	0.175	0.140	0.199	0.035
23-SEP-94 10:08:10 500 PROCESS-VENT	11.38	1.42	7.1	3	1.964	155	177	160	2.28	7.91	66	20	102	74	0.41	13.9	13.9	60	1.134	1.134	1.130	1.126	1.149	0.143	0.161	0.150	0.217	0.049
23-SEP-94 10:09:10 500 PROCESS-VENT	11.34	1.41	7.1	3	1.959	160	181	165	2.30	7.53	67	20	103	75	0.37	13.9	15.2	60	1.129	1.121	1.129	1.127	1.154	0.155	0.180	0.167	0.226	0.039
23-SEP-94 10:10:10 500 PROCESS-VENT	11.28	1.41	7.1	3	1.952	164	185	168	2.35	7.55	67	20	104	75	0.43	13.9	16.4	60	1.125	1.117	1.122	1.109	1.140	0.160	0.197	0.187	0.244	0.033
23-SEP-94 10:11:10 500 PROCESS-VENT	11.31	1.41	7.1	2	1.952	170	188	175	2.32	6.92	67	16	105	75	0.38	11.3	17.7	60	1.115	1.106	1.107	1.106	1.145	0.175	0.205	0.199	0.255	0.034
23-SEP-94 10:12:10 500 PROCESS-VENT	11.36	1.42	7.1	3	1.948	172	190	177	2.34	7.00	67	17	105	75	0.41	12.6	15.1	60	1.115	1.099	1.104	1.109	1.149	0.181	0.210	0.206	0.264	0.034
23-SEP-94 10:13:10 500 PROCESS-VENT	11.26	1.40	7.1	4	1.945	173	192	178	2.36	6.47	66	18	106	76	0.39	13.9	11.4	60	1.100	1.101	1.103	1.104	1.144	0.188	0.225	0.216	0.270	0.029
23-SEP-94 10:14:10 500 PROCESS-VENT	11.29	1.41	7.1	4	1.938	172	193	177	2.40	5.99	67	19	107	76	0.40	15.2	11.4	60	1.099	1.096	1.096	1.093	1.150	0.195	0.220	0.238	0.277	0.081
23-SEP-94 10:15:10 500 PROCESS-VENT	11.22	1.40	7.1	3	1.932	173	194	178	2.40	6.05	66	19	108	76	0.41	15.2	11.4	60	1.094	1.103	1.101	1.092	1.140	0.206	0.227	0.243	0.277	0.020
23-SEP-94 10:16:10 500 PROCESS-VENT	11.30	1.41	7.1	3	1.926	173	194	179	2.43	5.98	66	18	109	76	0.39	17.4	11.3	60	1.087	1.090	1.090	1.094	1.130	0.212	0.230	0.241	0.282	0.040
23-SEP-94 10:17:10 500 PROCESS-VENT	11.29	1.41	7.1	2	1.922	175	194	180	2.46	5.41	66	17	110	76	0.42	10.9	11.3	60	1.090	1.090	1.093	1.088	1.147	0.221	0.236	0.249	0.281	0.070
23-SEP-94 10:18:10 500 PROCESS-VENT	11.24	1.40	7.1	3	1.921	174	194	179	2.47	5.94	66	18	110	76	0.43	15.2	12.5	60	1.090	1.092	1.092	1.088	1.140	0.222	0.226	0.261	0.281	0.029
23-SEP-94 10:19:10 500 PROCESS-VENT	11.26	1.40	7.1	3	1.920	173	194	179	2.47	5.32	66	18	110	76	0.41	12.5	13.9	60	1.088	1.084	1.084	1.080	1.143	0.231	0.239	0.256	0.289	0.050
23-SEP-94 10:20:17 500 PROCESS-VENT	11.24	1.40	7.1	4	1.916	173	194	179	2.50	5.36	66	19	110	76	0.41	11.4	15.2	60	1.082	1.081	1.074	1.081	1.149	0.239	0.243	0.271	0.287	0.030
23-SEP-94 10:21:10 500 PROCESS-VENT	11.25	1.40	7.1	4	1.911	173	194	179	2.49	5.40	66	19	111	77	0.43	12.7	15.2	60	1.087	1.081	1.073	1.071	1.145	0.233	0.239	0.270	0.293	0.057
23-SEP-94 10:22:10 500 PROCESS-VENT	11.25	1.40	7.1	3	1.905	173	194	179	2.52	5.23	66	19	112	77	0.45	13.9	15.2	60	1.084	1.067	1.071	1.083	1.145	0.244	0.239	0.278	0.294	0.026
23-SEP-94 10:23:10 500 PROCESS	11.28	1.41	7.1	3	1.901	173	194	178	2.50	4.91	65	19	113	77	0.46	15.0	15.1	60	1.078	1.070	1.072	1.074	1.144	0.245	0.243	0.277	0.292	0.013
23-SEP-94 10:24:17 500 PROCESS	11.23	1.40	7.1	2	1.896	175	194	180	2.46	5.64	65	17	113	77	0.42	16.3	15.1	60	1.074	1.073	1.067	1.070	1.136	0.250	0.250	0.284	0.303	0.043
23-SEP-94 10:25:10 500 PROCESS	11.24	1.40	7.2	3	1.897	176	194	182	2.51	5.25	65	16	113	77	0.44	17.6	11.4	60	1.070	1.068	1.073	1.073	1.144	0.249	0.248	0.284	0.309	0.046
23-SEP-94 10:26:17 500 PROCESS	11.25	1.40	7.2	3	1.895	177	194	182	2.46	5.38	65	14	113	77	0.42	14.1	12.5	60	1.076	1.071	1.073	1.072	1.149	0.263	0.252	0.287	0.305	0.037
23-SEP-94 10:27:17 500 PROCESS	11.24	1.40	7.2	4	1.892	175	194	180	2.54	4.82	65	18	114	77	0.41	12.5	13.9	60	1.071	1.076	1.067	1.066	1.147	0.271	0.253	0.289	0.299	0.022
23-SEP-94 10:28:17 500 PROCESS	11.21	1.40	7.2	4	1.888	173	194	178	2.55	5.19	65	19	115	77	0.46	12.6	15.2	59	1.068	1.066	1.070	1.060	1.145	0.269	0.253	0.300	0.313	0.051
23-SEP-94 10:29:17 500 PROCESS	11.30	1.41	7.2	3	1.882	173	194	178	2.60	4.95	65	19	115	77	0.43	12.6	16.4	60	1.065	1.061	1.060	1.063	1.142	0.271	0.252	0.291	0.311	0.051
23-SEP-94 10:30:10 500 PROCESS	11.27	1.40	7.2	3	1.879	173	194	178	2.57	4.74	65	19	116	77	0.46	12.6	17.6	60	1.060	1.059	1.063	1.062	1.144	0.271	0.256	0.304	0.314	0.035
23-SEP-94 10:31:17 500 PROCESS	11.21	1.40	7.2	2	1.876	175	194	180	2.52	5.27	65	17	116	78	0.47	12.6	18.9	60	1.060	1.061	1.065	1.061	1.142	0.274	0.244	0.306	0.315	0.030
23-SEP-94 10:32:17 500 PROCESS	11.25	1.40	7.3	3	1.870	175	194	181	2.34	5.07	65	17	116	78	0.45	12.6	16.3	60	1.070	1.057	1.061	1.061	1.140	0.284	0.258	0.299	0.327	0.074
23-SEP-94 10:33:17 500 PROCESS	11.23	1.40	7.3	3	1.875	174	194	185	2.54	4.56	65	19	116	76	0.47	13.9	12.7	60	1.055	1.057	1.053	1.057	1.142	0.270	0.259	0.310	0.320	0.027

23-SEP-94 10:36:17 500 PROCESS	11.27	1.41	7.3	3	1.067	175	195	179	2.57	4.70	64	17	117	75	0.46	16.4	[illegible]	60	1.065	1.062	1.059	1.051	1.137	0.262	0.269	0.324	0.311	0.045
23-SEP-94 10:37:17 500 PROCESS	11.29	1.41	7.3	3	1.064	173	194	179	2.57	4.44	64	19	118	79	0.45	16.4	15.1	60	1.059	1.043	1.040	1.051	1.137	0.284	0.269	0.322	0.315	0.045
23-SEP-94 10:38:17 500 PROCESS	11.22	1.40	7.4	2	1.041	174	194	180	2.57	4.62	64	18	119	79	0.45	16.4	16.5	60	1.062	1.055	1.051	1.049	1.142	0.290	0.267	0.320	0.326	0.042
23-SEP-94 10:39:17 500 PROCESS	11.27	1.40	7.4	3	1.044	177	194	183	2.60	4.57	65	16	118	79	0.45	12.5	17.6	60	1.059	1.060	1.059	1.053	1.149	0.302	0.271	0.327	0.328	0.056
23-SEP-94 10:40:17 500 PROCESS	11.30	1.41	7.4	3	1.062	177	194	182	2.58	4.89	64	15	118	80	0.46	12.5	17.6	60	1.061	1.051	1.051	1.053	1.145	0.305	0.272	0.321	0.327	0.055
23-SEP-94 10:41:17 500 PROCESS	11.28	1.40	7.4	4	1.061	176	194	182	2.57	4.35	64	16	118	79	0.49	12.6	13.8	60	1.060	1.054	1.048	1.057	1.140	0.304	0.272	0.326	0.328	0.031
23-SEP-94 10:42:17 500 PROCESS	11.31	1.41	7.4	4	1.059	173	194	179	2.60	4.02	64	19	119	80	0.47	14.9	13.9	60	1.053	1.050	1.046	1.046	1.140	0.303	0.272	0.330	0.320	0.015
23-SEP-94 10:43:17 500 PROCESS	11.28	1.40	7.4	3	1.056	174	194	180	2.62	4.52	64	18	119	81	0.49	15.2	14.0	60	1.056	1.057	1.048	1.050	1.153	0.314	0.276	0.332	0.317	0.042
23-SEP-94 10:44:17 500 PROCESS	11.28	1.41	7.4	3	1.075	174	195	180	2.63	5.44	64	18	115	81	0.44	17.4	13.9	60	1.053	1.054	1.055	1.051	1.144	0.306	0.271	0.328	0.326	0.054
23-SEP-94 10:45:17 500 PROCESS	11.24	1.40	7.5	2	1.066	176	195	181	2.57	4.89	64	17	117	81	0.47	17.4	13.9	60	1.055	1.053	1.048	1.050	1.149	0.309	0.277	0.331	0.331	0.027
23-SEP-94 10:46:17 500 PROCESS	11.21	1.40	7.5	3	1.065	177	195	182	2.60	4.87	64	16	117	81	0.44	20.1	18.0	60	1.055	1.054	1.049	1.046	1.144	0.311	0.281	0.333	0.337	0.035
23-SEP-94 10:47:17 500 PROCESS	11.25	1.40	7.5	3	1.063	177	195	183	2.59	5.35	64	16	117	81	0.47	15.1	12.6	60	1.058	1.050	1.046	1.049	1.136	0.310	0.278	0.326	0.343	0.032
23-SEP-94 10:48:17 500 PROCESS	11.24	1.40	7.5	3	1.065	177	195	183	2.65	4.89	64	16	117	81	0.48	12.6	13.8	60	1.053	1.051	1.045	1.045	1.140	0.309	0.275	0.330	0.341	0.031
23-SEP-94 10:49:17 500 PROCESS	11.25	1.40	7.5	4	1.050	174	195	180	2.60	4.86	64	18	118	81	0.47	12.6	15.2	60	1.051	1.048	1.053	1.043	1.136	0.314	0.287	0.339	0.333	0.045
23-SEP-94 10:50:17 500 PROCESS	11.23	1.40	7.5	3	1.054	174	195	179	2.60	4.30	64	19	119	81	0.46	12.6	16.4	60	1.045	1.050	1.043	1.042	1.137	0.314	0.287	0.330	0.339	0.043
23-SEP-94 10:51:17 500 PROCESS	11.28	1.40	7.6	3	1.053	173	194	179	2.60	4.25	64	19	119	81	0.49	12.6	17.7	60	1.056	1.044	1.049	1.042	1.142	0.313	0.281	0.335	0.344	0.043
23-SEP-94 10:52:17 500 PROCESS	11.23	1.40	7.6	3	1.072	174	195	179	2.69	4.49	64	19	114	81	0.47	12.6	20.0	60	1.048	1.043	1.043	1.045	1.138	0.317	0.287	0.336	0.342	0.044
23-SEP-94 10:53:17 500 PROCESS	11.26	1.40	7.6	2	1.065	177	195	182	2.66	4.40	64	16	117	82	0.47	12.6	17.7	60	1.035	1.050	1.045	1.042	1.145	0.309	0.284	0.332	0.346	0.039
23-SEP-94 10:54:17 500 PROCESS	11.24	1.40	7.6	3	1.063	176	195	183	2.65	4.70	64	17	117	82	0.39	12.6	15.1	60	1.039	1.043	1.037	1.038	1.143	0.317	0.278	0.335	0.346	0.046
23-SEP-94 10:55:17 500 PROCESS	11.27	1.41	7.6	3	1.057	176	195	182	2.65	5.52	64	17	117	82	0.49	15.1	12.5	60	1.044	1.043	1.037	1.043	1.136	0.320	0.288	0.346	0.346	0.030
23-SEP-94 10:56:17 500 PROCESS	11.28	1.40	7.6	3	1.050	176	195	181	2.61	5.21	64	17	118	82	0.47	15.1	11.4	60	1.040	1.049	1.039	1.043	1.139	0.321	0.291	0.338	0.352	0.028
23-SEP-94 10:57:17 500 PROCESS	11.26	1.40	7.7	4	1.053	173	195	180	2.64	5.26	64	19	118	83	0.48	15.1	12.6	60	1.045	1.034	1.035	1.037	1.145	0.321	0.280	0.343	0.339	0.049
23-SEP-94 10:58:17 500 PROCESS	11.25	1.40	7.7	3	1.051	174	195	180	2.63	4.86	64	19	119	83	0.47	15.1	13.9	60	1.043	1.043	1.038	1.034	1.138	0.325	0.283	0.343	0.335	0.038
23-SEP-94 10:59:16 500 PROCESS	11.28	1.41	7.7	3	1.063	174	195	180	2.65	5.20	64	19	117	83	0.46	15.1	15.1	60	1.039	1.040	1.030	1.029	1.143	0.328	0.294	0.339	0.342	0.034
23-SEP-94 11:00:17 500 PROCESS	11.24	1.40	7.7	3	1.073	175	195	180	2.72	5.17	64	18	114	83	0.49	15.0	17.7	60	1.032	1.038	1.038	1.033	1.139	0.317	0.289	0.344	0.309	0.050
23-SEP-94 11:01:17 500 PROCESS	11.28	1.40	7.7	2	1.041	178	195	184	2.59	4.87	64	15	116	83	0.44	12.6	17.7	60	1.040	1.039	1.033	1.033	1.139	0.326	0.298	0.340	0.353	0.040
23-SEP-94 11:02:17 500 PROCESS	11.23	1.40	7.7	3	1.041	177	195	183	2.63	4.92	64	15	117	84	0.47	12.6	16.5	60	1.042	1.042	1.035	1.038	1.140	0.330	0.295	0.340	0.348	0.032
23-SEP-94 11:03:17 500 PROCESS	11.26	1.40	7.7	3	1.050	177	195	184	2.66	4.57	64	15	117	83	0.45	13.9	12.6	60	1.035	1.037	1.043	1.031	1.140	0.333	0.300	0.340	0.347	0.032
23-SEP-94 11:04:16 500 PROCESS	11.27	1.40	7.8	4	1.055	176	195	182	2.71	4.42	63	17	118	84	0.42	15.1	11.5	60	1.032	1.033	1.034	1.028	1.140	0.332	0.292	0.350	0.347	0.037
23-SEP-94 11:05:17 500 PROCESS	11.27	1.40	7.8	4	1.049	174	195	180	2.60	4.46	63	19	119	84	0.44	15.1	11.4	60	1.032	1.032	1.035	1.031	1.143	0.337	0.305	0.353	0.348	0.053
23-SEP-94 11:06:17 500 PROCESS	11.21	1.40	7.8	3	1.048	175	195	181	2.63	4.12	63	18	119	84	0.45	17.6	11.3	60	1.035	1.036	1.024	1.031	1.139	0.320	0.300	0.350	0.352	0.049
23-SEP-94 11:07:16 500 PROCESS	11.30	1.41	7.8	3	1.040	175	195	180	2.66	5.11	63	18	115	84	0.46	18.9	11.4	60	1.040	1.039	1.037	1.037	1.137	0.337	0.291	0.354	0.358	0.043
23-SEP-94 11:08:17 500 PROCESS	11.30	1.41	7.8	2	1.057	177	196	183	2.66	5.47	63	15	114	84	0.46	17.6	11.4	60	1.039	1.039	1.035	1.024	1.149	0.342	0.308	0.355	0.357	0.016
23-SEP-94 11:09:17 500 PROCESS	11.17	1.39	7.8	3	1.055	176	196	181	2.72	5.12	63	17	114	85	0.47	15.1	12.6	60	1.038	1.035	1.031	1.031	1.143	0.331	0.280	0.349	0.357	0.054
23-SEP-94 11:10:17 500 PROCESS	11.22	1.40	7.9	3	1.034	176	195	181	2.69	5.26	63	18	117	85	0.46	12.6	15.2	60	1.033	1.034	1.031	1.031	1.139	0.326	0.290	0.357	0.354	0.050
23-SEP-94 11:11:17 500 PROCESS	11.22	1.40	7.9	3	1.050	175	196	182	2.72	4.76	63	18	118	85	0.46	11.4	12.4	60	1.033	1.029	1.033	1.020	1.147	0.324	0.293	0.350	0.355	0.035
23-SEP-94 11:12:16 500 PROCESS	11.20	1.40	7.9	4	1.040	175	195	181	2.65	4.40	63	18	118	85	0.46	12.4	11.4	60	1.029	1.030	1.031	1.022	1.143	0.320	0.299	0.353	0.358	0.051
23-SEP-94 11:13:17 500 PROCESS	11.25	1.40	7.9	3	1.044	175	195	181	2.65	4.43	63	18	115	85	0.45	13.9	11.4	60	1.034	1.040	1.032	1.021	1.142	0.330	0.306	0.355	0.350	0.018
23-SEP-94 11:14:17 500 PROCESS	11.21	1.40	7.9	3	1.063	174	195	181	2.74	4.00	63	19	116	85	0.45	15.0	11.2	60	1.032	1.039	1.032	1.029	1.138	0.337	0.309	0.358	0.340	0.024
23-SEP-94 11:15:16 500 PROCESS	11.23	1.40	7.9	3	1.056	175	195	181	2.71	4.17	63	18	117	85	0.45	17.4	11.3	60	1.027	1.034	1.031	1.027	1.145	0.343	0.310	0.363	0.356	0.037
23-SEP-94 11:16:16 500 PROCESS	11.25	1.40	7.9	2	1.053	178	195	183	2.68	4.50	63	16	117	85	0.44	16.9	11.4	60	1.024	1.026	1.029	1.023	1.140	0.339	0.314	0.358	0.365	0.032
23-SEP-94 11:17:16 500 PROCESS	11.21	1.40	7.9	3	1.051	178	196	184	2.71	4.71	63	15	118	86	0.43	13.9	12.6	60	1.034	1.030	1.031	1.032	1.137	0.339	0.304	0.354	0.359	0.034
23-SEP-94 11:18:16 500 PROCESS	11.26	1.40	8.0	3	1.051	178	195	185	2.68	4.35	63	15	118	86	0.45	10.1	13.0	60	1.020	1.031	1.034	1.022	1.137	0.335	0.304	0.340	0.340	0.033
23-SEP-94 11:19:16 500 PROCESS	11.20	1.40	8.0	3	1.045	178	195	184	2.72	4.01	63	15	118	86	0.47	12.5	14.0	60	1.020	1.020	1.033	1.023	1.137	0.346	0.313	0.352	0.355	0.027
23-SEP-94 11:20:16 500 PROCESS	11.23	1.40	8.0	4	1.043	176	195	183	2.69	4.90	63	17	119	86	0.42	12.6	12.7	60	1.023	1.029	1.033	1.023	1.136	0.340	0.300	0.350	0.350	0.020
23-SEP-94 11:21:16 500 PROCESS	11.25	1.40	8.0	4	1.055	175	196	183	2.71	5.29	63	17	117	86	0.46	15.0	12.7	60	1.031	1.020	1.033	1.029	1.143	0.344	0.319	0.355	0.335	0.034
23-SEP-94 11:22:16 500 PROCESS	11.26	1.40	8.0	3	1.047	175	196	181	2.69	4.95	63	18	114	86	0.46	15.0	12.7	60	1.020	1.029	1.020	1.027	1.143	0.346	0.313	0.357	0.353	0.009
23-SEP-94 11:23:16 500 PROCESS	11.25	1.40	8.1	3	1.050	175	196	181	2.65	4.66	63	18	117	86	0.46	17.7	12.5	60	1.031	1.027	1.027	1.027	1.147	0.343	0.310	0.357	0.360	0.049
23-SEP-94 11:24:16 500 PROCESS	11.29	1.41	8.1	2	1.046	177	196	183	2.69	4.24	63	16	118	87	0.47	17.4	11.4	60	1.029	1.031	1.028	1.020	1.144	0.347	0.308	0.341	0.368	0.034
23-SEP-94 11:25:16 500 PROCESS	11.26	1.40	8.1	2	1.046	178	196	184	2.68	4.82	63	15	118	87	0.42	15.1	12.6	60	1.026	1.032	1.033	1.023	1.140	0.349	0.313	0.359	0.363	0.060
23-SEP-94 11:26:16 500 PROCESS	11.28	1.41	8.1	3	1.044	178	195	184	2.64	4.41	63	15	119	87	0.45	12.7	13.9	60	1.024	1.033	1.034	1.021	1.149	0.347	0.315	0.340	0.359	0.051
23-SEP-94 11:27:16 500 PROCESS	11.20	1.40	8.1	3	1.043	178	196	184	2.65	4.20	63	15	119	87	0.43	11.4	13.9	60	1.024	1.027	1.027	1.023	1.147	0.353	0.306	0.352	0.370	0.033
23-SEP-94 11:28:16 500 PROCESS	11.20	1.41	8.1	4	1.043	177	195	183	2.65	4.00	62	16	119	87	0.47	12.5	11.4	60	1.021	1.022	1.024	1.020	1.142	0.352	0.311	0.358	0.343	0.018
23-SEP-94 11:29:16 500 PROCESS	11.17	1.39	8.1	4	1.034	175	196	181	2.74	4.69	62	18	116	87	0.50	13.0	11.4	60	1.018	1.031	1.024	1.018	1.140	0.339	0.306	0.365	0.344	0.051
23-SEP-94 11:30:16 500 PROCESS	11.23	1.40	8.2	3	1.061	175	196	181	2.77	4.86	62	18	114	87	0.48	15.1	11.4	60	1.027	1.032	1.020	1.018	1.142	0.344	0.306	0.355	0.365	0.027
23-SEP-94 11:31:16 500 PROCESS	11.24	1.40	8.2	3	1.049	176	196	181	2.74	4.73	63	18	117	87	0.46	16.4	11.5	60	1.024	1.020	1.020	1.026	1.137	0.342	0.315	0.346	0.355	0.023
23-SEP-94 11:32:16 500 PROCESS	11.19	1.40	8.2	2	1.043	177	196	183	2.72	3.93	62	17	118	88	0.43	17.6	10.1	60	1.021	1.026	1.026	1.021	1.132	0.357	0.316	0.349	0.353	0.046
23-SEP-94 11:33:16 500 PROCESS	11.30	1.41	8.2	2	1.043	177	196	183	2.73	4.46	62	17	118	87	0.45	13.9	12.5	60	1.021	1.021	1.023	1.024	1.033	0.349	0.319	0.370	0.350	0.046
23-SEP-94 11:34:16 500 PROCESS	11.26	1.40	8.2	3	1.042	176	196	182	2.74	4.23	62	18	119	88	0.44	11.3	14.0	60	1.017	1.024	1.023	1.021	1.140	0.350	0.314	0.375	0.364	0.012
23-SEP-94 11:35:16 500 PROCESS	11.22	1.40	8.2	3	1.039	177	196	182	2.75	3.97	63	17	119	88	0.46	11.3	15.2	60	1.026	1.027	1.031	1.022	1.142	0.352	0.320	0.365	0.360	0.037
23-SEP-94 11:36:16 500 PROCESS	11.32	1.41	8.3	3	1.046	177	196	183	2.72	4.41	63	17	118	88	0.44	12.5	11.4	60	1.022	1.017	1.029	1.021	1.144	0.348	0.321	0.359	0.360	0.034
23-SEP-94 11:37:16 500 PROCESS	11.17	1.39	8.3	4	1.040	176	196	181	2.69	4.77	63	18	114	88	0.48	13.9	11.4	60	1.018	1.033	1.027	1.021	1.140	0.346	0.317	0.364	0.363	0.009
23-SEP-94 11:38:16 500 PROCESS	11.28	1.41	8.3	3	1.047	175	196	182	2.79	4.61	63	18	117	88	0.47	15.1	11.5	60	1.027	1.020	1.026	1.020	1.138	0.354	0.319	0.365	0.341	0.029
23-SEP-94 11:39:16 500 PROCESS	11.29	1.41	9.3	3	1.043	176	196	181	2.73	4.02	63	18	118	35	0.48	17.6	11.0	60	1.024	1.024	1.027	1.323	1.142	0.352	0.321	0.371	0.364	0.315

23-SEP-94 11:42:16 500 PROCESS	11.29	1.41	0.3	2	1.053	179	196	105	2.68	4.07	63	15	116	89	0.44	13.9	13.5	60	1.027	1.023	1.025	1.027	1.136	0.356	0.316	0.369	0.360	0.035
23-SEP-94 11:43:16 500 PROCESS	11.23	1.40	0.4	3	1.054	178	196	105	2.71	4.42	63	15	115	89	0.45	10.0	15.2	60	1.028	1.031	1.027	1.028	1.140	0.349	0.316	0.366	0.366	0.034
23-SEP-94 11:44:16 500 PROCESS	11.28	1.41	0.4	3	1.047	179	196	105	2.66	4.70	63	15	117	89	0.42	12.6	12.5	60	1.024	1.022	1.022	1.028	1.144	0.349	0.313	0.365	0.360	0.024
23-SEP-94 11:45:16 500 PROCESS	11.30	1.41	0.4	3	1.044	179	196	105	2.65	4.53	63	15	118	89	0.44	15.1	11.4	60	1.022	1.024	1.024	1.022	1.140	0.340	0.315	0.358	0.364	0.034
23-SEP-94 11:46:16 500 PROCESS	11.21	1.40	0.4	4	1.043	177	196	103	2.72	4.61	63	17	118	89	0.45	15.1	12.6	60	1.027	1.023	1.024	1.021	1.137	0.349	0.300	0.366	0.364	0.042
23-SEP-94 11:47:16 500 PROCESS	11.26	1.40	0.4	3	1.040	176	196	102	2.73	4.04	63	18	119	89	0.45	15.1	14.0	60	1.026	1.023	1.027	1.021	1.139	0.340	0.324	0.364	0.360	0.042
23-SEP-94 11:48:16 500 PROCESS	11.26	1.40	0.4	3	1.051	175	196	101	2.77	4.73	63	18	115	89	0.49	15.0	15.1	60	1.022	1.022	1.031	1.018	1.138	0.346	0.314	0.366	0.361	0.043
23-SEP-94 11:49:16 500 PROCESS	11.28	1.41	0.5	3	1.051	176	196	101	2.71	4.51	63	18	115	89	0.45	15.2	16.3	60	1.023	1.022	1.026	1.018	1.137	0.349	0.314	0.377	0.359	0.001
23-SEP-94 11:50:16 500 PROCESS	11.19	1.39	0.5	2	1.046	178	197	104	2.75	4.15	63	15	117	90	0.48	12.6	17.7	60	1.017	1.021	1.027	1.018	1.140	0.352	0.314	0.361	0.360	0.035
23-SEP-94 11:51:15 500 PROCESS	11.30	1.41	0.5	3	1.044	177	196	103	2.72	4.39	63	17	118	89	0.46	11.4	17.7	60	1.023	1.018	1.027	1.023	1.143	0.352	0.314	0.371	0.366	0.027
23-SEP-94 11:52:16 500 PROCESS	11.26	1.40	0.5	3	1.041	176	196	103	2.74	4.23	63	18	118	90	0.43	12.5	15.2	60	1.016	1.017	1.024	1.026	1.143	0.354	0.319	0.359	0.361	0.026
23-SEP-94 11:53:16 500 PROCESS	11.25	1.40	0.5	3	1.038	177	197	103	2.72	3.98	63	18	119	90	0.42	13.9	12.6	60	1.016	1.020	1.027	1.017	1.140	0.343	0.314	0.366	0.365	0.038
23-SEP-94 11:54:16 500 PROCESS	11.29	1.41	0.5	3	1.037	176	196	103	2.66	4.43	63	18	119	90	0.44	13.9	11.3	60	1.020	1.022	1.031	1.024	1.142	0.354	0.325	0.374	0.344	0.041
23-SEP-94 11:55:16 500 PROCESS	11.18	1.39	0.5	4	1.037	176	196	101	2.69	4.60	63	18	119	90	0.48	13.9	12.6	60	1.026	1.024	1.026	1.028	1.145	0.351	0.337	0.375	0.360	0.032
23-SEP-94 11:56:15 500 PROCESS	11.26	1.40	0.6	3	1.052	175	196	101	2.76	5.04	63	18	115	90	0.48	13.8	13.9	60	1.016	1.021	1.029	1.021	1.143	0.353	0.319	0.343	0.354	0.023
23-SEP-94 11:57:16 500 PROCESS	11.30	1.41	0.6	3	1.047	176	196	102	2.73	4.76	63	18	116	90	0.44	13.8	15.1	60	1.022	1.029	1.027	1.017	1.143	0.355	0.321	0.363	0.358	0.022
23-SEP-94 11:58:15 500 PROCESS	11.26	1.40	0.6	2	1.041	176	197	103	2.77	4.62	63	17	118	90	0.43	14.0	16.5	60	1.021	1.018	1.022	1.021	1.145	0.352	0.317	0.371	0.340	0.044
23-SEP-94 11:59:15 500 PROCESS	11.28	1.40	0.6	2	1.040	179	196	105	2.69	4.39	63	15	118	90	0.46	11.4	17.7	60	1.023	1.021	1.026	1.023	1.143	0.358	0.324	0.370	0.354	0.046
23-SEP-94 12:00:15 500 PROCESS	11.19	1.40	0.6	3	1.038	179	196	105	2.71	4.49	63	15	118	90	0.45	12.7	15.1	60	1.026	1.028	1.029	1.023	1.139	0.355	0.324	0.364	0.366	0.040
23-SEP-94 12:01:15 500 PROCESS	11.24	1.40	0.6	3	1.037	179	196	105	2.76	4.26	63	15	119	90	0.49	13.0	12.7	60	1.023	1.024	1.022	1.024	1.140	0.347	0.315	0.374	0.361	0.028
23-SEP-94 12:02:16 500 PROCESS	11.28	1.41	0.7	3	1.036	179	196	105	2.65	4.44	63	15	119	90	0.46	15.1	11.5	60	1.023	1.017	1.018	1.028	1.145	0.357	0.320	0.372	0.368	0.004
23-SEP-94 12:03:15 500 PROCESS	11.28	1.41	0.7	3	1.053	178	197	105	2.74	4.78	63	15	115	90	0.44	13.9	12.7	60	1.024	1.024	1.023	1.027	1.130	0.355	0.321	0.375	0.359	0.046
23-SEP-94 12:04:15 500 PROCESS	11.25	1.40	0.7	4	1.044	176	196	103	2.74	4.62	63	18	117	91	0.44	12.6	13.9	60	1.026	1.021	1.029	1.024	1.142	0.349	0.314	0.377	0.360	0.029
23-SEP-94 12:05:15 500 PROCESS	11.22	1.40	0.7	3	1.041	176	196	102	2.79	4.41	63	18	118	91	0.44	12.4	15.2	60	1.023	1.024	1.022	1.018	1.136	0.350	0.319	0.372	0.364	0.042
23-SEP-94 12:06:15 500 PROCESS	11.29	1.41	0.7	3	1.039	176	196	102	2.74	4.28	63	18	119	90	0.48	12.5	16.4	60	1.024	1.021	1.027	1.023	1.132	0.354	0.327	0.375	0.360	0.027
23-SEP-94 12:07:15 500 PROCESS	11.27	1.40	0.7	3	1.043	176	196	101	2.71	4.56	63	18	118	91	0.46	12.4	17.6	60	1.026	1.020	1.024	1.021	1.133	0.350	0.317	0.369	0.364	0.023
23-SEP-94 12:08:15 500 PROCESS	11.24	1.40	0.7	2	1.052	178	197	105	2.75	4.08	63	16	115	91	0.43	11.4	17.7	60	1.023	1.031	1.027	1.022	1.139	0.349	0.317	0.379	0.360	0.029
23-SEP-94 12:09:15 500 PROCESS	11.25	1.40	0.8	3	1.044	179	197	105	2.75	4.48	63	15	116	91	0.44	12.6	15.1	60	1.023	1.021	1.022	1.015	1.143	0.355	0.319	0.374	0.369	0.031
23-SEP-94 12:10:15 500 PROCESS	11.24	1.40	0.8	3	1.045	179	197	105	2.71	4.38	63	15	117	91	0.44	13.9	12.7	60	1.026	1.018	1.027	1.027	1.130	0.348	0.325	0.376	0.361	0.077
23-SEP-94 12:11:15 500 PROCESS	11.21	1.40	0.8	3	1.041	179	197	105	2.74	4.17	63	15	118	91	0.44	15.1	10.0	60	1.022	1.016	1.023	1.028	1.145	0.350	0.326	0.374	0.361	0.031
23-SEP-94 12:12:15 500 PROCESS	11.28	1.41	0.8	3	1.039	179	197	105	2.72	4.42	63	15	118	91	0.48	12.5	12.6	60	1.023	1.021	1.023	1.024	1.140	0.355	0.321	0.377	0.361	0.042

DATE: 23-SEP-94 LFSPE OXYGEN GENERATION TIME: 12:12:43
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.27 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 0.8 HOURS LAST 406 LEVEL: 3

V403 FILL2/DRAINS	LEV606-1 OFF	P706-1 179 PSIA
V405-1 PRODUCT	LEV606-2 OFF	P706-2 197 PSIA
V405-2 PRODUCT	LEV606-3 OFF	P706-3 105 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.71 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 4.42 PSID
V053 CLOSED	LEV606-6 OFF	DP749-1 63 PSID
V081-1 CLOSED	LEV606-7 OFF	DP749-2 15 PSID
V081-2 OPEN	PDR785 ON	T762-1 118 F
V081-3 CLOSED		T762-2 119 F
V081-4 CLOSED	CALC745 0.45 GPM	T736-1 91 F
FAN422 OFF	LEV605-1 11.4 CU IN	T736-2 94 F
PMP463 ON	LEV605-2 12.6 CU IN	P713 175 PSIS
PMP464 ON		

ANOMALY:
ADVICE:

(F1) PAGE	(F4) CONFIG CNTRL	(F7) ACKNOWLEDGE	(F10) MODIFY OPER
(F2) SUBSYSTEM PARA	(F5) MANUAL OPER	(F8) DATA LOGGING	
(F3) MODE SELECTION	(F6) VIEW OPER	(F9) EXIT	PAGE 1 OF 2

DATE: 23-SEP-94 LFSPE OXYGEN GENERATION TIME: 12:12:54
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.30 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 0.8 HOURS LAST 406 LEVEL: 4

CG746-1 -1 % LEL	H2V740-1 1.020 V	VLT906-1 1.002 V

CG746-4	-1 % LEL	H2V760-4	1.020 V	VL1906-4	1.704 V
CS755	0.0 MMHO/CM	H2V900	1.139 V	VL1906-5	1.744 V
I766	60 AMPS	H2PAVG	1.046 V	VL1906-6	1.797 V
				VL1906-7	1.901 V
		I740-1	0.352 A	VL1906-8	1.905 V
		I740-2	0.315 A	VL1906-9	1.063 V
		I740-3	0.301 A	VL1906-10	1.840 V
		I740-4	0.365 A	VL1906-11	1.934 V
		I900	0.002 A	VL1906-12	1.079 V
				CELLAVG	1.037 V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

23-SEP-94 12:03:15 500 PROCESS	11.16	1.39	0.0	4	1.037	177	196	184	2.73	4.23	63	17	119	91	0.41	11.3	13.9	60	1.027	1.020	1.020	1.026	1.137	0.354	0.315	0.379	0.365	0.006
23-SEP-94 12:13:27 500 PROCESS	11.20	1.41	0.0	4	1.034	176	196	183	2.74	4.38	63	17	119	91	0.45	11.3	14.0	60	1.021	1.010	1.010	1.017	1.137	0.342	0.320	0.375	0.366	0.035
23-SEP-94 12:23:27 500 PROCESS	11.26	1.40	9.0	4	1.048	176	197	182	2.75	5.96	60	18	115	92	0.45	12.5	15.1	60	1.028	1.024	1.024	1.020	1.140	0.344	0.326	0.375	0.349	0.029
23-SEP-94 12:33:27 500 PROCESS	11.22	1.40	9.1	3	1.035	176	196	182	2.75	4.90	61	18	118	93	0.45	13.8	14.0	60	1.023	1.020	1.018	1.017	1.130	0.353	0.314	0.369	0.366	0.046
23-SEP-94 12:43:26 500 PROCESS	11.22	1.40	9.3	4	1.043	176	196	182	2.80	4.01	61	18	115	93	0.44	15.1	13.9	60	1.026	1.022	1.022	1.026	1.142	0.353	0.325	0.376	0.365	0.038
23-SEP-94 12:53:26 500 PROCESS	11.23	1.40	9.4	4	1.032	176	196	182	2.75	5.43	61	18	118	93	0.44	12.6	13.9	60	1.024	1.016	1.022	1.018	1.143	0.360	0.322	0.381	0.364	0.028
23-SEP-94 13:03:26 500 PROCESS	11.23	1.40	9.6	4	1.044	178	197	185	2.77	5.14	61	16	115	94	0.41	12.6	12.7	60	1.020	1.020	1.016	1.020	1.142	0.359	0.326	0.385	0.371	0.046
23-SEP-94 13:13:26 500 PROCESS	11.28	1.41	9.8	3	1.028	178	197	184	2.73	5.23	60	16	119	94	0.46	13.9	11.5	60	1.015	1.015	1.020	1.013	1.139	0.352	0.322	0.388	0.366	0.027
23-SEP-94 13:23:26 500 PROCESS	11.26	1.40	9.9	3	1.034	178	197	184	2.77	6.12	60	16	116	95	0.43	15.1	11.4	60	1.016	1.020	1.020	1.016	1.140	0.361	0.326	0.391	0.374	0.035
23-SEP-94 13:33:25 500 PROCESS	11.31	1.41	10.1	3	1.023	179	197	185	2.80	6.75	60	16	119	95	0.42	13.9	11.3	60	1.016	1.017	1.016	1.015	1.137	0.374	0.335	0.379	0.360	0.033
23-SEP-94 13:43:25 500 PROCESS	11.27	1.40	10.2	3	1.032	179	196	186	2.80	5.05	60	15	117	96	0.45	13.0	13.9	60	1.017	1.010	1.026	1.011	1.144	0.301	0.322	0.380	0.365	0.037
23-SEP-94 13:53:25 500 PROCESS	11.30	1.41	10.4	2	1.040	180	197	186	2.81	6.52	60	15	115	96	0.42	11.3	10.9	60	1.015	1.012	1.013	1.017	1.137	0.377	0.320	0.344	0.372	0.049
23-SEP-94 14:03:25 500 PROCESS	11.22	1.40	10.5	3	1.024	178	197	184	2.73	5.91	60	17	119	96	0.44	15.0	13.8	60	1.018	1.021	1.016	1.015	1.139	0.302	0.319	0.377	0.360	0.046
23-SEP-94 14:13:25 500 PROCESS	11.31	1.41	10.7	4	1.032	177	197	183	2.85	5.59	60	18	115	96	0.43	15.1	13.9	60	1.017	1.010	1.016	1.012	1.137	0.377	0.320	0.365	0.364	0.031
23-SEP-94 14:23:24 500 PROCESS	11.26	1.40	10.8	3	1.021	179	197	185	2.79	6.11	60	16	119	97	0.45	12.7	12.4	60	1.017	1.017	1.021	1.015	1.139	0.386	0.321	0.379	0.369	0.031
23-SEP-94 14:33:24 500 PROCESS	11.29	1.41	11.0	3	1.027	179	197	186	2.94	6.10	60	15	117	97	0.44	12.6	15.2	60	1.013	1.014	1.020	1.015	1.136	0.387	0.321	0.372	0.372	0.013
23-SEP-94 14:43:24 500 PROCESS	11.30	1.41	11.1	2	1.019	179	197	186	2.88	5.36	60	15	119	98	0.42	10.1	20.2	60	1.015	1.020	1.015	1.012	1.136	0.383	0.325	0.371	0.376	0.030
23-SEP-94 14:53:24 500 PROCESS	11.25	1.40	11.3	3	1.026	177	197	183	2.90	6.20	60	17	116	97	0.47	15.1	16.5	60	1.006	1.022	1.017	1.011	1.143	0.386	0.327	0.379	0.363	0.042
23-SEP-94 15:03:23 500 PROCESS	11.24	1.40	11.5	4	1.020	177	197	184	2.80	6.14	59	17	119	97	0.40	15.1	11.4	60	1.011	1.016	1.015	1.009	1.137	0.382	0.325	0.379	0.375	0.034
23-SEP-94 15:13:23 500 PROCESS	11.26	1.40	11.6	3	1.034	178	197	184	2.92	6.47	59	16	114	98	0.43	15.1	11.3	60	1.023	1.015	1.017	1.013	1.134	0.374	0.330	0.380	0.365	0.044
23-SEP-94 15:23:23 500 PROCESS	11.23	1.40	11.8	3	1.019	179	197	185	2.86	5.66	60	16	119	98	0.41	15.1	14.0	59	1.016	1.015	1.013	1.015	1.132	0.382	0.322	0.385	0.355	0.044

DATE: 23-SEP-94 LFSPE OXYGEN GENERATION TIME: 15:28:3?
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.28 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 11.8 HOURS LAST 606 LEVEL: 3

V003	FILL2/DRAIN1	LEV606-1	OFF	P706-1	179	PSIA
V005-1	PRODUCT	LEV606-2	OFF	P706-2	197	PSIA
V005-2	PRODUCT	LEV606-3	OFF	P706-3	185	PSIA
V051-1	CLOSED	LEV606-4	OFF	DP709	2.92	PSID
V051-2	CLOSED	LEV606-5	OFF	DP708	6.20	PSID
V053	CLOSED	LEV606-6	OFF	DP749-1	59	PSID
V081-1	CLOSED	LEV606-7	OFF	DP749-2	16	PSID
V081-2	OPEN	PUR705	ON	T762-1	118	F
V081-3	CLOSED			T762-2	118	F
V081-4	CLOSED	CALC745	0.46 GPM	T736-1	98	F
FAN422	OFF	LEV605-1	15.1 CU IN	T736-2	100	F
PMP463	ON	LEV605-2	11.3 CU IN	P713	175	PSIS
PMP460	ON					

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 1 OF 2

MODE: 04 STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.25 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 11.0 HOURS LAST 406 LEVEL: 3

C6746-1 -1 % LEL	H2V760-1 1.012 V	VL1906-1 1.795 V
C6746-2 -0 % LEL	H2V760-2 1.017 V	VL1906-2 1.781 V
C6746-3 -0 % LEL	H2V760-3 1.013 V	VL1906-3 1.786 V
C6746-4 -1 % LEL	H2V760-4 1.012 V	VL1906-4 1.785 V
C5755 0.0 UMHO/CM	H2V908 1.142 V	VL1906-5 1.772 V
I746 60 AMPS	H2PAVG 1.039 V	VL1906-6 1.791 V
		VL1906-7 1.070 V
	I760-1 0.303 A	VL1906-8 1.000 V
	I760-2 0.324 A	VL1906-9 1.024 V
	I760-3 0.375 A	VL1906-10 1.006 V
	I760-4 0.360 A	VL1906-11 1.910 V
	I900 0.032 A	VL1906-12 1.050 V
		CELLAVG 1.023 V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) ADRIFT OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

23-SEP-94 15:33:23	500 PROCESS	11.23	1.40	11.9	2	1.025	180	197	186	2.89	5.46	59	15	117	98	0.46	12.6	17.7	60	1.016	1.013	1.020	1.013	1.134	0.389	0.330	0.375	0.363	0.422
23-SEP-94 15:43:23	500 PROCESS	11.21	1.40	12.1	4	1.017	177	197	183	2.90	6.25	59	18	119	99	0.40	13.9	11.4	60	1.020	1.013	1.013	1.010	1.137	0.380	0.337	0.380	0.359	0.040
23-SEP-94 15:53:22	500 PROCESS	11.29	1.41	12.2	3	1.032	180	197	185	2.90	6.42	59	15	114	98	0.43	15.1	12.7	60	1.015	1.023	1.010	1.013	1.130	0.392	0.335	0.383	0.341	0.032
23-SEP-94 16:03:22	500 PROCESS	11.27	1.41	12.4	2	1.016	179	196	186	2.90	6.09	60	15	119	98	0.42	12.9	13.8	60	1.010	1.007	1.015	1.010	1.131	0.389	0.328	0.370	0.359	0.039
23-SEP-94 16:13:22	500 PROCESS	11.27	1.41	12.5	3	1.030	176	197	183	2.93	5.07	59	18	114	98	0.41	15.1	13.0	60	1.016	1.020	1.016	1.016	1.143	0.387	0.322	0.391	0.357	0.055
23-SEP-94 16:23:22	500 PROCESS	11.25	1.40	12.7	3	1.010	180	197	186	2.88	5.08	59	15	110	98	0.41	13.9	12.7	60	1.015	1.010	1.015	1.015	1.133	0.387	0.332	0.388	0.361	0.042
23-SEP-94 16:33:22	500 PROCESS	11.30	1.41	12.8	3	1.029	178	197	184	2.94	6.19	59	16	115	98	0.46	12.5	15.2	60	1.017	1.016	1.017	1.020	1.139	0.400	0.316	0.385	0.360	0.040
23-SEP-94 16:43:21	500 PROCESS	11.24	1.40	13.0	2	1.017	178	197	184	2.93	6.40	59	16	118	98	0.44	11.3	20.1	60	1.017	1.022	1.016	1.020	1.139	0.380	0.320	0.382	0.364	0.044
23-SEP-94 16:53:21	500 PROCESS	11.25	1.40	13.1	3	1.014	179	197	185	2.92	6.22	59	16	119	98	0.43	15.1	11.4	60	1.017	1.022	1.020	1.016	1.142	0.383	0.322	0.394	0.360	0.044
23-SEP-94 17:03:21	500 PROCESS	11.27	1.40	13.3	3	1.010	179	197	186	2.94	5.13	60	15	117	98	0.47	16.4	11.4	60	1.010	1.013	1.012	1.010	1.136	0.396	0.320	0.376	0.365	0.062
23-SEP-94 17:13:21	500 PROCESS	11.28	1.41	13.5	2	1.023	177	197	183	2.91	6.13	59	17	117	98	0.46	13.9	17.7	60	1.015	1.015	1.017	1.013	1.139	0.391	0.326	0.377	0.349	0.033
23-SEP-94 17:23:21	500 PROCESS	11.25	1.40	13.6	4	1.019	177	197	183	2.99	5.54	59	17	117	98	0.46	13.0	11.3	60	1.015	1.020	1.022	1.015	1.137	0.387	0.331	0.380	0.353	0.042
23-SEP-94 17:33:20	500 PROCESS	11.31	1.41	13.8	3	1.012	179	197	185	2.94	5.42	60	15	119	98	0.46	15.0	11.3	60	1.010	1.016	1.010	1.013	1.139	0.393	0.330	0.380	0.363	0.053
23-SEP-94 17:43:20	500 PROCESS	11.27	1.41	13.9	3	1.016	179	197	185	2.95	5.95	59	15	118	98	0.44	12.6	13.9	60	1.013	1.010	1.020	1.017	1.137	0.400	0.320	0.372	0.369	0.040
23-SEP-94 17:53:20	500 PROCESS	11.27	1.40	14.1	2	1.027	179	197	185	2.93	5.00	59	15	115	99	0.49	12.6	17.7	60	1.017	1.010	1.017	1.010	1.133	0.400	0.344	0.369	0.361	0.042
23-SEP-94 18:03:20	500 PROCESS	11.25	1.40	14.2	3	1.017	177	197	183	2.91	6.05	59	18	117	99	0.45	16.4	12.6	60	1.011	1.026	1.010	1.011	1.133	0.399	0.342	0.379	0.348	0.009
23-SEP-94 18:13:19	500 PROCESS	11.20	1.41	14.4	4	1.012	177	197	184	3.00	5.04	59	16	119	98	0.44	13.9	13.9	60	1.017	1.017	1.022	1.015	1.140	0.413	0.326	0.370	0.352	0.037
23-SEP-94 18:23:19	500 PROCESS	11.23	1.40	14.5	3	1.018	178	197	184	2.94	6.22	59	16	118	98	0.45	12.5	12.7	60	1.013	1.015	1.020	1.017	1.139	0.400	0.336	0.375	0.352	0.035
23-SEP-94 18:33:19	500 PROCESS	11.29	1.41	14.7	3	1.015	179	197	185	2.97	5.65	60	16	118	98	0.43	12.6	15.2	60	1.017	1.017	1.017	1.017	1.133	0.399	0.324	0.365	0.354	0.035
23-SEP-94 18:43:19	500 PROCESS	11.25	1.40	14.8	2	1.027	179	197	185	2.90	5.62	59	16	115	98	0.47	11.1	20.1	60	1.022	1.016	1.022	1.018	1.139	0.407	0.326	0.368	0.353	0.026
23-SEP-94 18:53:19	500 PROCESS	11.25	1.40	15.0	2	1.019	177	196	183	3.00	6.25	59	17	118	98	0.42	10.0	20.2	60	1.013	1.013	1.013	1.017	1.129	0.411	0.321	0.382	0.354	0.005
23-SEP-94 19:03:18	500 PROCESS	11.22	1.40	15.2	3	1.010	174	196	183	2.95	5.09	59	18	119	98	0.43	15.1	11.5	60	1.009	1.016	1.020	1.022	1.133	0.415	0.317	0.379	0.355	0.026
23-SEP-94 19:13:18	500 PROCESS	11.23	1.40	15.3	4	1.021	177	196	184	3.02	6.11	59	16	116	98	0.42	12.6	13.9	60	1.013	1.020	1.018	1.017	1.136	0.407	0.325	0.371	0.349	0.070
23-SEP-94 19:23:18	500 PROCESS	11.25	1.40	15.5	3	1.019	177	196	184	2.99	5.45	59	16	117	98	0.46	12.5	13.9	60	1.018	1.016	1.020	1.018	1.133	0.400	0.324	0.377	0.355	0.044
23-SEP-94 19:33:18	500 PROCESS	11.31	1.41	15.6	3	1.010	179	197	185	3.00	5.49	59	15	118	98	0.45	11.3	15.1	60	1.009	1.015	1.015	1.023	1.136	0.400	0.322	0.358	0.352	0.044
23-SEP-94 19:43:17	500 PROCESS	11.27	1.41	15.8	3	1.009	178	196	184	3.04	5.54	59	16	119	98	0.44	13.9	15.1	60	1.009	1.017	1.017	1.018	1.136	0.400	0.320	0.380	0.357	0.055
23-SEP-94 19:53:17	500 PROCESS	11.28	1.41	15.9	2	1.014	179	197	185	3.02	5.41	59	15	117	97	0.46	13.8	13.8	60	1.020	1.020	1.018	1.016	1.132	0.405	0.332	0.370	0.355	0.038
23-SEP-94 20:03:17	500 PROCESS	11.28	1.41	16.1	2	1.011	179	196	185	2.98	5.52	59	15	118	97	0.45	10.9	10.0	60	1.011	1.021	1.022	1.017	1.129	0.422	0.319	0.372	0.340	0.059
23-SEP-94 20:13:17	500 PROCESS	11.24	1.40	16.2	3	1.005	176	196	183	3.00	5.55	59	18	119	98	0.41	13.9	17.7	60	1.017	1.021	1.015	1.013	1.136	0.410	0.319	0.381	0.353	0.045
23-SEP-94 20:23:17	500 PROCESS	11.24	1.40	16.4	3	1.022	175	196	181	3.10	6.02	59	18	114	97	0.40	13.0	15.1	60	1.011	1.017	1.010	1.018	1.139	0.396	0.300	0.377	0.352	0.034
23-SEP-94 20:33:17	500 PROCESS	11.26	1.40	16.5	4	1.013	176	196	183	3.06	6.30	59	18	117	97	0.45	15.1	11.2	60	1.014	1.015	1.023	1.012	1.116	0.400	0.324	0.370	0.353	0.172
23-SEP-94 20:43:16	500 PROCESS	11.24	1.40	16.7	3	1.007	178	196	185	3.00	5.73	59	15	119	97	0.43	13.9	12.7	60	1.013	1.026	1.021	1.010	1.134	0.420	0.314	0.368	0.360	0.048
23-SEP-94 20:53:16	500 PROCESS	11.23	1.40	16.9	3	1.007	179	196	185	3.07	6.17	59	15	119	97	0.43	12.5	12.7	60	1.010	1.020	1.015	1.016	1.137	0.400	0.320	0.377	0.350	0.359
23-SEP-94 21:03:16	500 PROCESS	11.28	1.41	17.0	3	1.013	179	196	185	3.05	5.01	59	15	117	97	0.43	12.7	15.1	60	1.017	1.017	1.021	1.013	1.152	0.468	0.322	0.365	0.349	0.032
23-SEP-94 21:13:16	500 PROCESS	11.26	1.40	17.2	2	1.011	179	196	185	3.07	5.10	59	[illegible]	118	97	0.42	11.3	19.9	60	1.015	[illegible]	[illegible]	[illegible]	1.146	0.397	0.319	0.372	0.356	0.033
23-SEP-94 21:23:15	500 PROCESS	11.25	1.40	17.3	3	1.004	175	175	181	3.08	5.31	59	18	115	97	0.45	15.1	15.0	60	1.015	1.017	[illegible]	[illegible]	1.137	0.422	0.314	0.385	0.347	0.043
23-SEP-94 21:33:15	500 PROCESS	11.27	1.40	17.5	4	1.015	176	175	182	3.12	5.47	59	[illegible]	118	[illegible]	0.43	15.0	12.7	60	1.011	1.016	1.020	[illegible]	1.133	0.435	0.324	0.388	0.346	0.073
23-SEP-94 21:43:15	500 PROCESS	[illegible]	1.40	17.6	3	1.010	177	175	184	3.15	6.93	59	16	115	97	0.44	12.6	12.5	60	1.022	1.022	1.024	1.017	1.134	0.409	0.306	0.371	0.340	0.056
23-SEP-94 21:53:15	500 PROCESS	11.22	1.42	17.8	3	1.026	[illegible]	196	184	3.13	5.87	59	16	118	97	0.42	12.6	13.0	60	1.016	1.017	1.016	1.024	1.134	0.411	0.313	0.369	0.352	0.004
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	178	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	118	[illegible]	[illegible]	[illegible]	15.1	60	1.017	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	11.24	1.40	[illegible]	4	1.011	176	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23-SEP-94 22:33:14 500 PROCESS	11.29	1.41	18.4	4	1.000	175	195	101	3.22	5.94	59	10	118	96	0.46	15.1	13.0	60	1.012	1.020	1.021	1.017	1.134	0.415	0.315	0.354	0.355	0.022
23-SEP-94 22:43:14 500 PROCESS	11.26	1.40	18.6	3	1.006	177	195	104	3.16	5.39	59	16	119	97	0.45	12.6	13.9	60	1.016	1.018	1.028	1.021	1.133	0.410	0.316	0.365	0.359	0.076
23-SEP-94 22:53:13 500 PROCESS	11.23	1.40	18.7	3	1.004	177	195	104	3.15	5.91	59	16	119	96	0.43	12.4	15.1	60	1.013	1.017	1.018	1.018	1.120	0.410	0.322	0.360	0.355	0.046
23-SEP-94 23:03:13 500 PROCESS	11.24	1.40	18.9	3	1.011	178	195	105	3.15	5.70	59	15	118	97	0.46	11.4	15.2	60	1.005	1.022	1.018	1.007	1.134	0.415	0.325	0.355	0.340	0.063
23-SEP-94 23:13:13 500 PROCESS	11.25	1.40	19.0	2	1.005	178	195	105	3.12	6.22	59	15	118	96	0.43	12.5	17.6	60	1.007	1.013	1.018	1.013	1.140	0.421	0.315	0.363	0.359	0.035
23-SEP-94 23:23:13 500 PROCESS	11.21	1.40	19.2	3	1.014	175	196	101	3.24	5.67	59	18	116	96	0.47	17.6	12.6	60	1.012	1.020	1.020	1.018	1.134	0.407	0.319	0.370	0.346	0.092
23-SEP-94 23:33:13 500 PROCESS	11.21	1.40	19.3	4	1.019	176	195	103	3.19	5.01	59	17	114	96	0.44	12.6	14.0	60	1.011	1.020	1.016	1.017	1.136	0.400	0.315	0.361	0.344	0.067
23-SEP-94 23:43:13 500 PROCESS	11.18	1.39	19.5	3	1.008	177	195	105	3.19	5.07	59	15	117	97	0.41	12.5	13.9	60	1.015	1.020	1.021	1.010	1.142	0.408	0.320	0.375	0.352	0.061
23-SEP-94 23:53:12 500 PROCESS	11.24	1.40	19.6	3	1.004	177	196	104	3.19	5.43	59	16	118	96	0.46	12.6	15.1	60	1.015	1.018	1.020	1.018	1.139	0.413	0.315	0.372	0.350	0.042
24-SEP-94 00:03:12 500 PROCESS	11.23	1.40	19.8	2	1.003	177	195	104	3.21	6.30	59	15	119	96	0.42	12.6	17.6	60	1.013	1.015	1.012	1.021	1.133	0.427	0.319	0.377	0.353	0.037
24-SEP-94 00:13:12 500 PROCESS	11.27	1.41	19.9	2	1.013	177	196	103	3.24	5.06	59	16	115	96	0.40	16.4	15.2	60	1.016	1.022	1.017	1.012	1.139	0.427	0.304	0.359	0.350	0.082
24-SEP-94 00:23:12 500 PROCESS	11.26	1.40	20.1	3	1.011	176	196	101	3.24	5.42	59	17	117	96	0.40	17.6	12.7	60	1.016	1.015	1.018	1.018	1.130	0.426	0.315	0.371	0.343	0.080
24-SEP-94 00:33:11 500 PROCESS	11.23	1.40	20.3	4	1.009	174	195	102	3.24	5.56	59	17	118	96	0.46	12.6	15.2	60	1.009	1.018	1.021	1.016	1.132	0.422	0.315	0.375	0.352	0.040
24-SEP-94 00:43:11 500 PROCESS	11.25	1.40	20.4	3	1.004	178	196	104	3.21	6.02	59	16	119	96	0.47	11.4	15.0	60	1.007	1.018	1.018	1.012	1.139	0.431	0.306	0.379	0.353	0.050
24-SEP-94 00:53:11 500 PROCESS	11.26	1.40	20.6	3	1.004	177	195	104	3.23	5.50	59	15	119	96	0.40	12.5	13.9	60	1.013	1.020	1.020	1.020	1.136	0.421	0.324	0.379	0.340	0.071
24-SEP-94 01:03:11 500 PROCESS	11.23	1.40	20.7	3	1.011	178	195	104	3.29	5.97	59	16	116	95	0.41	13.9	15.1	60	1.009	1.017	1.015	1.018	1.140	0.424	0.315	0.364	0.347	0.077
24-SEP-94 01:13:10 500 PROCESS	11.23	1.40	20.9	2	1.008	178	195	104	3.27	5.70	59	15	118	96	0.47	10.9	11.6	60	1.010	1.021	1.018	1.021	1.133	0.410	0.317	0.370	0.346	0.024
24-SEP-94 01:23:10 500 PROCESS	11.23	1.40	21.0	2	1.007	178	195	104	3.20	6.07	59	15	118	96	0.45	17.6	11.6	60	1.012	1.017	1.015	1.013	1.134	0.420	0.309	0.360	0.359	0.073
24-SEP-94 01:33:10 500 PROCESS	11.24	1.40	21.2	3	1.002	175	195	101	3.27	5.53	59	18	119	96	0.45	12.3	17.7	60	1.011	1.023	1.017	1.013	1.130	0.433	0.322	0.375	0.354	0.085
24-SEP-94 01:43:10 500 PROCESS	11.22	1.40	21.3	3	1.012	175	195	101	3.31	6.16	59	18	117	95	0.45	15.1	13.9	60	1.010	1.017	1.022	1.024	1.126	0.432	0.316	0.360	0.340	0.024
24-SEP-94 01:53:09 500 PROCESS	11.22	1.40	21.5	4	1.009	175	195	102	3.27	6.31	59	18	118	96	0.47	15.0	12.7	60	1.011	1.015	1.011	1.017	1.137	0.427	0.316	0.370	0.350	0.046
24-SEP-94 02:03:10 500 PROCESS	11.24	1.40	21.6	4	1.002	177	195	104	3.29	5.75	59	16	119	96	0.40	12.6	14.0	60	1.007	1.017	1.015	1.010	1.136	0.436	0.311	0.355	0.352	0.079
24-SEP-94 02:13:09 500 PROCESS	11.31	1.41	21.8	3	1.017	177	195	104	3.33	6.47	59	16	115	96	0.43	11.3	15.1	60	1.009	1.011	1.020	1.021	1.133	0.426	0.320	0.350	0.366	0.060
24-SEP-94 02:23:09 500 PROCESS	11.21	1.40	21.9	3	1.007	178	195	105	3.29	5.80	59	15	118	96	0.42	12.6	13.9	60	1.013	1.017	1.020	1.015	1.133	0.420	0.303	0.363	0.350	0.040
24-SEP-94 02:33:09 500 PROCESS	11.27	1.41	22.1	3	1.003	178	195	104	3.28	5.51	59	15	118	96	0.46	15.1	14.0	60	1.013	1.021	1.018	1.012	1.132	0.426	0.298	0.360	0.354	0.065
24-SEP-94 02:43:09 500 PROCESS	11.28	1.41	22.3	2	1.004	178	195	105	3.32	6.10	59	15	119	96	0.44	17.6	11.3	60	1.013	1.018	1.020	1.022	1.130	0.431	0.309	0.382	0.349	0.037
24-SEP-94 02:53:08 500 PROCESS	11.26	1.40	22.4	2	1.014	175	195	102	3.37	6.14	59	18	115	95	0.43	15.1	17.7	60	1.016	1.026	1.015	1.022	1.130	0.421	0.311	0.360	0.352	0.029
24-SEP-94 03:03:08 500 PROCESS	11.29	1.41	22.6	3	1.012	176	195	102	3.41	5.71	59	17	116	96	0.46	12.4	17.7	60	1.017	1.017	1.021	1.015	1.139	0.422	0.300	0.371	0.350	0.060
24-SEP-94 03:13:08 500 PROCESS	11.27	1.40	22.7	3	1.018	175	195	101	3.39	5.01	59	18	116	96	0.46	15.1	13.9	60	1.015	1.015	1.021	1.018	1.140	0.435	0.306	0.372	0.350	0.043
24-SEP-94 03:23:08 500 PROCESS	11.24	1.40	22.9	3	1.015	175	195	101	3.42	6.07	59	18	115	96	0.43	15.1	13.9	60	1.015	1.015	1.018	1.021	1.131	0.432	0.299	0.360	0.337	0.071
24-SEP-94 03:33:07 500 PROCESS	11.31	1.41	23.0	4	1.014	175	195	101	3.41	5.08	59	18	116	96	0.47	12.6	13.9	60	1.017	1.007	1.018	1.021	1.134	0.427	0.306	0.379	0.352	0.040
24-SEP-94 03:43:07 500 PROCESS	11.27	1.41	23.2	4	1.001	176	195	103	3.41	5.47	59	17	119	96	0.46	12.6	15.1	60	1.012	1.016	1.021	1.020	1.132	0.438	0.325	0.359	0.348	0.043
24-SEP-94 03:53:07 500 PROCESS	11.28	1.40	23.3	3	1.001	177	195	104	3.31	5.50	59	16	119	96	0.45	12.6	11.4	60	1.006	1.015	1.021	1.016	1.103	0.435	0.303	0.356	0.352	0.049
24-SEP-94 04:03:07 500 PROCESS	11.21	1.40	23.5	3	1.015	177	195	104	3.34	6.37	58	16	116	96	0.44	15.2	11.4	60	1.007	1.022	1.013	1.015	1.134	0.430	0.313	0.377	0.347	0.055
24-SEP-94 04:13:07 500 PROCESS	11.23	1.40	23.6	3	1.036	177	195	104	3.35	6.17	59	15	118	96	0.44	13.9	11.4	60	1.006	1.015	1.013	1.017	1.135	0.426	0.309	0.357	0.353	0.045
24-SEP-94 04:23:06 500 PROCESS	11.21	1.40	23.8	3	1.000	177	195	104	3.34	5.63	59	15	118	96	0.45	12.5	15.1	60	1.013	1.020	1.021	1.012	1.137	0.429	0.320	0.371	0.358	0.042
24-SEP-94 04:33:06 500 PROCESS	11.19	1.40	23.9	3	1.006	178	195	104	3.35	5.92	59	15	118	96	0.47	12.6	15.1	60	1.015	1.016	1.016	1.013	1.134	0.435	0.306	0.350	0.340	0.053
24-SEP-94 04:43:06 500 PROCESS	11.26	1.40	24.1	2	1.001	177	195	104	3.39	6.07	59	15	118	96	0.44	13.0	13.0	60	1.013	1.020	1.020	1.016	1.137	0.433	0.313	0.365	0.340	0.057
24-SEP-94 04:53:06 500 PROCESS	11.26	1.40	24.3	2	1.000	177	195	104	3.32	4.75	59	15	119	95	0.46	10.9	11.2	60	1.012	1.023	1.023	1.020	1.139	0.432	0.309	0.366	0.354	0.044
24-SEP-94 05:03:06 500 PROCESS	11.27	1.40	24.4	3	1.016	175	193	101	3.40	5.09	59	18	114	96	0.45	15.0	17.7	60	1.014	1.017	1.018	1.017	1.130	0.421	0.311	0.371	0.342	0.061
24-SEP-94 05:13:06 500 PROCESS	11.31	1.41	24.6	3	1.008	175	195	101	3.41	5.32	59	18	116	96	0.44	12.4	17.7	60	1.013	1.018	1.018	1.013	1.120	0.430	0.298	0.377	0.343	0.031
24-SEP-94 05:23:05 500 PROCESS	11.27	1.40	24.7	3	1.017	174	195	101	3.45	6.47	59	18	114	95	0.47	15.0	12.7	60	1.013	1.023	1.017	1.015	1.142	0.425	0.310	0.359	0.350	0.045
24-SEP-94 05:33:05 500 PROCESS	11.21	1.40	24.9	4	1.010	176	195	103	3.43	5.60	59	17	115	95	0.44	12.6	13.0	60	1.015	1.021	1.020	1.017	1.133	0.426	0.300	0.369	0.340	0.055
24-SEP-94 05:43:05 500 PROCESS	11.20	1.40	25.0	3	1.005	177	195	104	3.33	5.95	59	16	118	96	0.45	11.4	15.1	60	1.011	1.018	1.021	1.010	1.139	0.431	0.316	0.357	0.346	0.060
24-SEP-94 05:53:05 500 PROCESS	11.22	1.40	25.2	3	1.004	177	195	105	3.36	5.57	59	15	118	95	0.43	12.6	12.7	60	1.013	1.017	1.012	1.015	1.134	0.419	0.316	0.363	0.353	0.074
24-SEP-94 06:03:04 500 PROCESS	11.20	1.40	25.3	3	1.002	177	195	103	3.37	5.97	59	16	118	95	0.49	15.1	11.3	60	1.012	1.024	1.023	1.022	1.138	0.427	0.299	0.360	0.357	0.067
24-SEP-94 06:13:04 500 PROCESS	11.21	1.40	25.5	3	1.002	177	195	104	3.46	5.91	59	16	119	96	0.45	12.5	12.4	60	1.016	1.013	1.026	1.015	1.126	0.431	0.302	0.350	0.353	0.045
24-SEP-94 06:23:04 500 PROCESS	11.26	1.40	25.7	3	1.799	176	195	103	3.41	6.00	59	16	119	95	0.46	12.6	15.0	60	1.017	1.021	1.020	1.020	1.132	0.432	0.310	0.355	0.355	0.049
24-SEP-94 06:33:03 500 PROCESS	11.25	1.40	25.8	3	1.001	178	195	105	3.41	6.30	59	15	119	96	0.41	11.3	15.1	60	1.010	1.021	1.016	1.017	1.134	0.440	0.310	0.375	0.349	0.046
24-SEP-94 06:43:03 500 PROCESS	11.24	1.40	25.9	3	1.799	178	195	105	3.36	5.76	59	15	119	95	0.45	13.9	12.4	60	1.011	1.020	1.015	1.016	1.134	0.429	0.292	0.381	0.340	0.032
24-SEP-94 06:53:03 500 PROCESS	11.22	1.40	26.1	3	1.009	178	196	105	3.37	6.29	58	15	117	96	0.39	16.3	12.6	60	1.012	1.016	1.012	1.020	1.134	0.420	0.300	0.360	0.357	0.093
24-SEP-94 07:03:03 500 PROCESS	11.10	1.39	26.3	3	1.002	178	196	105	3.42	5.69	59	16	118	96	0.42	12.5	13.9	60	1.013	1.015	1.013	1.011	1.133	0.440	0.303	0.380	0.349	0.040
24-SEP-94 07:13:03 500 PROCESS	11.25	1.40	26.4	3	1.002	178	196	105	3.39	5.80	59	15	118	96	0.42	12.5	13.2	60	1.010	1.020	1.009	1.013	1.132	0.430	0.314	0.370	0.365	0.023
24-SEP-94 07:23:02 500 PROCESS	11.15	1.39	26.6	2	1.002	178	195	105	3.44	5.92	58	15	119	96	0.44	15.0	12.7	60	1.009	1.017	1.011	1.012	1.134	0.427	0.313	0.371	0.353	0.083
24-SEP-94 07:33:02 500 PROCESS	11.19	1.40	26.7	2	1.000	179	196	105	3.40	5.25	59	15	117	97	0.44	16.3	12.7	60	1.017	1.022	1.017	1.016	1.131	0.438	0.305	0.376	0.343	0.092
24-SEP-94 07:43:02 500 PROCESS	11.22	1.40	26.9	2	1.003	179	196	105	3.33	5.77	59	15	118	96	0.46	12.5	17.7	60	1.016	1.018	1.017	1.012	1.139	0.440	0.311	0.350	0.357	0.063
24-SEP-94 07:53:02 500 PROCESS	11.25	1.40	27.0	3	1.799	176	196	103	3.30	5.14	59	17	119	97	0.47	15.2	15.2	60	1.015	1.016	1.018	1.017	1.131	0.443	0.311	0.361	0.346	0.048
24-SEP-94 08:03:02 500 PROCESS	11.27	1.40	27.2	3	1.013	176	196	103	3.49	5.90	59	18	114	96	0.41	16.3	11.4	60	1.009	1.014	1.010	1.011	1.137	0.435	0.317	0.357	0.354	0.087
24-SEP-94 08:13:02 500 PROCESS	11.29	1.41	27.4	4	1.006	177	196	104	3.45	5.65	59	17	117	96	0.46	11.3	15.2	60	1.011	1.020	1.016	1.017	1.139	0.430	0.310	0.377	0.355	0.042
24-SEP-94 08:23:01 500 PROCESS	11.26	1.40	27.5	3	1.001	178	196	105	3.33	5.01	58	15	119	97	0.46	11.3	15.2	60	1.002	1.012	1.012	1.009	1.140	0.435	0.311	0.380	0.354	0.056
24-SEP-94 08:33:01 500 PROCESS	11.23	1.40	27.7	3	1.001	178	196	103	3.42	6.07	59	15	119	97	0.41	12.5	15.1	60	1.013	1.016	1.006	1.021	1.129	0.437	0.322	0.382	0.349	0.032
24-SEP-94 08:43:01 500 PROCESS	11.19	1.40	27.8	2	1.006	178	196	103	3.42	5.47	58	15	117	97	0.40	13.9	15.2	60	1.005	1.016	1.020	1.015	1.131	0.443	0.325	0.370	0.354	0.040
24-SEP-94 08:51:01 500 PROCESS	11.20	1.40	28.0	3	1.001	176	196	103	3.40	5.53	58	18	119	97	0.46	15.1	15.1	60	1.001	1.015	1.014	1.012	1.134	0.447	0.310	0.377	0.355	0.037

[illegible] 09:23:00 500 PROCESS	11.30	1.41	28.4	2	[illegible]	[illegible]	[illegible]	107	3.40	5.66	50	15	116	98	0.41	[illegible]	15.2	60	1.010	1.011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.352	0.046
24-SEP-94 09:33:00 500 PROCESS	11.27	1.40	28.6	3	1.004	177	197	103	3.45	5.69	50	18	117	98	0.45	13.0	15.1	60	1.011	1.010	1.015	1.009	1.133	0.443	0.320	0.370	0.355	0.044
24-SEP-94 09:43:00 500 PROCESS	11.25	1.40	28.7	3	1.001	179	197	106	3.43	5.94	50	16	119	98	0.40	11.3	15.0	60	1.005	1.017	1.006	1.005	1.132	0.444	0.321	0.379	0.364	0.039
24-SEP-94 09:53:00 500 PROCESS	11.27	1.41	28.9	2	1.007	179	197	106	3.41	5.34	50	15	117	98	0.43	13.9	15.1	60	1.004	1.018	1.015	1.013	1.131	0.451	0.315	0.380	0.353	0.017
24-SEP-94 10:02:59 500 PROCESS	11.30	1.41	29.1	3	1.798	177	197	108	3.43	5.39	50	18	119	98	0.44	15.1	15.1	60	1.010	1.018	1.011	1.010	1.133	0.440	0.315	0.382	0.350	0.022
24-SEP-94 10:12:59 500 PROCESS	11.27	1.40	29.2	3	1.807	180	197	107	3.43	5.01	50	15	117	98	0.45	12.4	14.0	60	1.001	1.010	1.006	1.011	1.137	0.440	0.313	0.387	0.360	0.037
24-SEP-94 10:22:59 500 PROCESS	11.28	1.41	29.4	2	1.799	180	197	107	3.46	5.97	50	15	119	99	0.40	12.6	17.6	60	1.001	1.009	1.009	1.013	1.136	0.447	0.321	0.375	0.357	0.040
24-SEP-94 10:32:59 500 PROCESS	11.26	1.40	29.5	3	1.016	179	197	107	3.43	5.03	50	15	115	99	0.45	13.9	12.7	60	1.005	1.012	1.012	1.016	1.126	0.443	0.321	0.381	0.359	0.043
24-SEP-94 10:42:58 500 PROCESS	11.21	1.40	29.7	3	1.002	180	197	107	3.30	5.20	50	15	110	99	0.42	17.6	11.3	60	1.006	1.010	1.002	1.006	1.130	0.446	0.319	0.371	0.361	0.029

DATE: 24-SEP-94 LFSPE OXYGEN GENERATION TIME: 10:43:11
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.24 LB/DAY HYDROGEN PRODUCTION RATE: 1.40 LB/DAY
OPERATING TIME: 29.7 HOURS LAST 606 LEVEL: 3

CG746-1 -1 % LEL	H2V760-1 1.006 V	VLT906-1 1.003 V
CG746-2 -0 % LEL	H2V760-2 1.015 V	VLT906-2 1.780 V
CG746-3 0 % LEL	H2V760-3 1.012 V	VLT906-3 1.791 V
CG746-4 -1 % LEL	H2V760-4 1.007 V	VLT906-4 1.789 V
CS755 0.0 UMHO/CM	H2V900 1.131 V	VLT906-5 1.780 V
I744 60 AMPS	H2PAVG 1.034 V	VLT906-6 1.799 V
		VLT906-7 1.011 V
	I760-1 0.447 A	VLT906-8 1.030 V
	I760-2 0.314 A	VLT906-9 1.007 V
	I760-3 0.379 A	VLT906-10 1.003 V
	I760-4 0.359 A	VLT906-11 1.052 V
	I900 0.024 A	VLT906-12 1.057 V
		CELLAVG 1.010 V

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 2 OF 2

DATE: 24-SEP-94 LFSPE OXYGEN GENERATION TIME: 10:45:21
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.29 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 29.7 HOURS LAST 606 LEVEL: 3

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 179 PSIA
V005-1 PRODUCT	LEV606-2 OFF	P706-2 197 PSIA
V005-2 PRODUCT	LEV606-3 ON	P706-3 106 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 3.30 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 5.92 PSID
V053 CLOSED	LEV606-6 OFF	DP749-1 50 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 16 PSID
V001-2 OPEN	PUM705 ON	T742-1 116 F
V001-3 CLOSED		T742-2 116 F
V001-4 CLOSED	CALC745 0.41 GPH	T736-1 99 F
FAN422 ON	LEV605-1 12.6 CU IN	T736-2 102 F
PMP463 ON	LEV605-2 14.0 CU IN	P713 174 PSIS
PMP464 ON		

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 1 OF 2

24-SEP-94 10:52:50 500 PROCESS	11.23	1.40	29.8	3	1.014	177	197	104	3.42	5.75	50	18	115	99	0.44	12.5	16.4	60	0.998	1.013	1.012	1.012	1.132	0.446	0.325	0.379	0.361	0.044
24-SEP-94 11:02:50 500 PROCESS	11.23	1.40	30.0	3	1.002	180	197	107	3.47	5.65	50	15	110	100	0.46	12.6	15.2	60	1.006	1.011	1.013	1.012	1.130	0.452	0.322	0.363	0.365	0.039
24-SEP-94 11:12:50 500 PROCESS	11.24	1.40	30.1	3	1.009	178	197	104	3.41	5.25	50	18	117	99	0.45	[illegible]	12.6	60	1.005	1.011	1.006	1.013	1.133	0.442	0.317	0.309	0.355	0.020

24-SEP-94 11:42:57 500 PROCESS	11.29	1.41	30.6	1	1.000	180	158	167	3.45	5.55	57	15	118	99	0.40	15.2	11.4	58	1.006	1.002	1.013	1.012	1.142	0.441	0.317	0.305	0.357	0.033
24-SEP-94 11:52:57 500 PROCESS	11.24	1.40	30.7	4	1.012	170	190	105	3.40	5.42	58	18	115	100	0.39	11.3	14.4	60	1.007	1.020	1.012	1.011	1.125	0.453	0.316	0.374	0.359	0.055
24-SEP-94 12:02:56 500 PROCESS	11.26	1.40	30.9	2	1.000	180	198	107	3.41	5.36	58	15	119	100	0.42	13.8	13.9	60	0.999	1.012	1.012	1.009	1.120	0.452	0.326	0.302	0.355	0.050
24-SEP-94 12:12:56 500 PROCESS	11.24	1.40	31.1	3	1.005	181	199	108	3.41	5.37	58	15	116	100	0.43	15.0	12.6	60	1.002	1.011	1.006	1.012	1.136	0.452	0.321	0.309	0.360	0.040
24-SEP-94 12:22:56 500 PROCESS	11.19	1.39	31.2	4	1.001	179	190	106	3.40	5.47	57	17	119	101	0.44	12.6	15.1	60	1.009	1.012	1.010	1.009	1.126	0.459	0.314	0.302	0.363	0.050
24-SEP-94 12:32:56 500 PROCESS	11.26	1.40	31.4	2	1.006	181	190	100	3.44	5.60	57	15	117	101	0.42	11.3	17.7	60	0.999	1.010	1.007	1.009	1.133	0.450	0.325	0.375	0.364	0.045
24-SEP-94 12:42:56 500 PROCESS	11.25	1.40	31.5	3	1.007	181	190	107	3.38	5.50	57	16	117	101	0.42	13.9	12.5	60	1.002	1.007	1.006	1.009	1.137	0.454	0.319	0.300	0.376	0.024
24-SEP-94 12:52:55 500 PROCESS	11.29	1.41	31.7	3	1.003	181	190	100	3.41	5.73	57	15	118	101	0.46	11.3	14.4	60	0.907	1.006	1.007	1.007	1.132	0.451	0.324	0.396	0.375	0.050
24-SEP-94 13:02:55 500 PROCESS	11.29	1.41	31.8	3	1.010	181	199	100	3.40	5.26	58	16	115	102	0.43	13.0	12.7	60	0.998	1.005	1.009	1.002	1.138	0.450	0.311	0.379	0.370	0.031
24-SEP-94 13:12:55 500 PROCESS	11.30	1.41	32.0	2	1.799	181	199	100	3.46	5.30	57	15	119	101	0.40	15.1	13.9	60	1.002	1.002	1.004	1.006	1.133	0.446	0.319	0.300	0.370	0.071
24-SEP-94 13:22:55 500 PROCESS	11.32	1.41	32.1	2	1.004	181	199	107	3.44	5.47	57	15	117	102	0.46	12.6	15.2	60	0.991	1.007	0.999	1.005	1.133	0.463	0.326	0.374	0.370	0.049
24-SEP-94 13:32:54 500 PROCESS	11.29	1.41	32.3	2	1.008	181	190	108	3.40	5.34	58	15	116	102	0.45	13.9	12.7	60	1.002	1.015	1.006	1.015	1.133	0.440	0.320	0.397	0.350	0.044
24-SEP-94 13:42:54 500 PROCESS	11.23	1.40	32.4	2	1.799	182	199	100	3.46	4.07	57	15	119	102	0.46	11.4	15.1	60	0.993	1.005	0.996	1.007	1.140	0.464	0.309	0.300	0.364	0.010
24-SEP-94 13:52:54 500 PROCESS	11.24	1.40	32.6	2	1.007	180	199	106	3.42	5.03	57	17	117	102	0.46	15.0	11.3	60	0.996	0.999	0.994	1.002	1.131	0.462	0.324	0.303	0.392	0.023
24-SEP-94 14:02:54 500 PROCESS	11.23	1.40	32.8	2	1.006	181	199	107	3.40	5.55	57	16	118	102	0.42	12.6	13.0	60	0.993	1.015	1.002	1.011	1.126	0.462	0.322	0.307	0.374	0.030
24-SEP-94 14:12:54 500 PROCESS	11.24	1.40	32.9	2	1.001	186	199	107	3.47	4.73	58	16	110	102	0.41	15.0	10.6	60	0.994	1.005	1.005	1.009	1.133	0.454	0.315	0.300	0.303	0.034
24-SEP-94 14:22:54 500 PROCESS	11.29	1.41	33.1	2	1.000	185	199	107	3.47	5.03	57	17	114	102	0.43	11.4	15.1	60	0.999	1.004	0.990	1.009	1.136	0.443	0.324	0.391	0.374	0.023
24-SEP-94 14:26:32 237 FAIL	11.25	1.40	33.1	2	1.003	180	199	107	3.43	5.75	57	17	118	103	0.43	13.0	12.5	60	0.991	1.012	0.993	1.005	1.132	0.453	0.320	0.392	0.300	0.042
24-SEP-94 14:32:33 237 FAIL	0.00	0.00	33.1	7	0.000	17	17	21	0.00	0.00	3	2	109	102	0.00	13.0	15.1	0	0.020	0.016	0.236	0.230	0.030	0.005	0.004	0.005	0.035	0.010
24-SEP-94 14:42:33 237 FAIL	0.00	0.00	33.1	7	0.000	16	17	21	0.00	0.00	1	1	103	102	0.00	13.0	15.1	-0	0.010	0.016	0.070	0.060	0.006	0.002	0.005	0.006	0.033	0.007
24-SEP-94 14:52:33 237 FAIL	0.00	0.00	33.1	7	0.000	17	16	20	0.00	0.00	1	1	99	103	0.00	13.9	15.1	-0	0.016	0.011	0.021	0.013	0.006	0.006	0.005	0.005	0.030	0.010
24-SEP-94 15:02:53 237 FAIL	0.00	0.00	33.1	7	0.000	16	16	20	0.00	0.00	1	1	96	103	0.00	13.9	15.0	-0	0.007	0.011	0.012	0.009	0.007	0.005	0.004	0.005	0.040	0.009
24-SEP-94 15:12:53 237 FAIL	0.00	0.00	33.1	7	0.000	16	16	21	0.00	0.00	1	1	93	103	0.00	13.0	15.1	-0	0.006	0.007	0.006	0.010	0.007	0.002	0.005	0.002	0.039	0.015
24-SEP-94 15:22:52 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	20	0.00	0.00	1	1	90	102	0.00	13.0	15.2	-0	0.009	0.007	0.010	0.006	0.005	0.002	0.002	0.005	0.042	0.009
24-SEP-94 15:32:52 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	20	0.00	0.00	0	1	89	103	0.00	13.8	15.0	-0	0.011	0.011	0.009	0.006	0.005	0.005	0.005	0.004	0.029	0.012
24-SEP-94 15:42:52 237 FAIL	0.00	0.00	33.1	7	0.000	17	15	20	0.00	0.00	0	1	88	103	0.00	13.7	15.1	-0	0.005	0.010	0.009	0.006	0.006	0.005	0.004	0.002	0.030	0.016
24-SEP-94 15:52:52 237 FAIL	0.00	0.00	33.1	7	0.000	14	16	19	0.00	0.00	0	0	87	102	0.00	13.7	15.0	-0	0.005	0.007	0.010	0.002	0.007	0.005	0.005	0.002	0.042	0.012
24-SEP-94 16:02:51 237 FAIL	0.00	0.00	33.1	7	0.000	17	16	19	0.00	0.00	0	1	86	102	0.00	13.9	15.1	-0	0.004	0.004	0.007	0.004	0.005	0.004	0.005	0.005	0.040	0.022
24-SEP-94 16:12:51 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	0	85	102	0.00	13.8	15.1	-0	0.005	0.005	0.010	0.005	0.007	0.004	0.001	0.002	0.030	0.001
24-SEP-94 16:22:51 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	85	102	0.00	13.9	15.0	-0	0.001	0.004	0.006	0.005	0.009	0.007	0.000	0.001	0.033	0.011
24-SEP-94 16:32:51 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	1	1	85	102	0.00	13.8	15.2	-0	0.004	0.005	0.010	0.004	0.007	0.007	0.001	0.004	0.040	0.012
24-SEP-94 16:42:51 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	1	1	85	101	0.00	13.8	15.1	-1	0.004	0.005	0.007	0.002	0.006	0.007	0.002	0.002	0.037	0.010
24-SEP-94 16:52:50 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	19	0.00	0.00	1	1	84	101	0.00	13.9	15.1	-0	0.007	0.004	0.005	0.007	0.006	0.009	0.002	0.004	0.043	0.006
24-SEP-94 17:02:50 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	84	102	0.00	13.9	15.2	-0	0.002	0.002	0.006	0.006	0.004	0.003	0.002	0.005	0.034	0.013
24-SEP-94 17:12:50 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	19	0.00	0.00	0	1	84	101	0.00	13.8	15.1	-0	0.005	0.005	0.010	0.005	0.005	0.005	0.001	0.004	0.033	0.011
24-SEP-94 17:22:50 237 FAIL	0.00	0.00	33.1	7	0.000	16	16	19	0.00	0.00	0	1	83	101	0.00	13.8	15.1	-0	0.004	0.002	0.004	0.007	0.006	0.006	0.001	0.004	0.044	0.011
24-SEP-94 17:32:49 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	19	0.00	0.00	0	1	83	101	0.00	13.0	15.1	-0	0.004	0.006	0.006	0.006	0.004	0.006	0.006	0.006	0.040	0.014
24-SEP-94 17:42:49 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	83	101	0.00	13.0	15.1	-0	0.005	0.004	0.007	0.004	0.005	0.006	0.002	0.005	0.035	0.014
24-SEP-94 17:52:49 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	83	101	0.00	13.9	15.0	-0	0.004	0.002	0.006	0.004	0.005	0.004	0.004	0.005	0.039	0.015
24-SEP-94 18:02:49 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	83	100	0.00	13.9	15.1	-0	0.006	0.005	0.009	0.006	0.004	0.004	0.005	0.004	0.040	0.016
24-SEP-94 18:12:49 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	83	100	0.00	13.9	15.2	-0	0.005	0.004	0.007	0.005	0.002	0.004	0.004	0.005	0.035	0.011
24-SEP-94 18:22:48 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	19	0.00	0.00	0	1	82	99	0.00	13.9	15.1	-0	0.006	0.005	0.009	0.005	0.005	0.004	0.004	0.002	0.043	0.015
24-SEP-94 18:32:48 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	82	99	0.00	13.8	15.1	-0	0.009	0.004	0.007	0.006	0.006	0.005	0.006	0.005	0.042	0.011
24-SEP-94 18:42:48 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	1	1	82	99	0.00	13.9	15.2	-1	0.000	0.000	0.009	0.006	0.007	0.002	0.006	0.004	0.037	0.021
24-SEP-94 18:52:48 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	19	0.00	0.00	0	1	82	99	0.00	13.8	15.0	-0	0.000	0.000	0.009	0.004	0.006	0.000	0.011	0.001	0.037	0.010
24-SEP-94 19:02:48 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	18	0.00	0.00	0	1	81	98	0.00	13.9	15.2	-0	0.000	0.000	0.007	0.005	0.002	0.000	0.013	0.004	0.033	0.032
24-SEP-94 19:12:47 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	18	0.00	0.00	0	1	81	98	0.00	13.8	15.2	-1	0.000	0.000	0.006	0.001	0.007	0.000	0.012	0.001	0.031	0.028
24-SEP-94 19:22:47 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	18	0.00	0.00	0	1	81	98	0.00	13.8	15.1	-0	0.000	0.000	0.007	0.007	0.004	0.000	0.013	0.005	0.037	0.016
24-SEP-94 19:32:47 237 FAIL	0.00	0.00	33.1	7	0.000	16	16	18	0.00	0.00	0	1	81	98	0.00	13.9	15.0	-1	0.000	0.000	0.009	0.005	0.003	0.000	0.009	0.002	0.040	0.016
24-SEP-94 19:42:47 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	81	97	0.00	13.9	15.1	-1	0.000	0.000	0.006	0.004	0.004	0.001	0.010	0.004	0.030	0.014
24-SEP-94 19:52:46 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	19	0.00	0.00	0	1	80	97	0.00	13.0	15.1	-0	0.000	0.000	0.004	0.005	0.004	0.000	0.011	0.004	0.044	0.013
24-SEP-94 20:02:46 237 FAIL	0.00	0.00	33.1	7	0.000	16	16	18	0.00	0.00	0	1	80	97	0.00	13.9	15.2	-0	0.000	0.000	0.006	0.004	0.003	0.001	0.011	0.001	0.044	0.021
24-SEP-94 20:12:46 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	80	97	0.00	13.9	15.1	-0	0.000	0.000	0.006	0.004	0.004	0.000	0.013	0.004	0.043	0.037
24-SEP-94 20:22:46 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	18	0.00	0.00	0	1	80	97	0.00	13.0	15.1	-0	0.000	0.000	0.006	0.004	0.005	0.002	0.005	0.006	0.038	0.017
24-SEP-94 20:32:46 237 FAIL	0.00	0.00	33.1	7	0.000	14	15	20	0.00	0.00	0	1	80	96	0.00	13.8	15.2	-1	0.000	0.000	0.006	0.005	0.003	0.005	0.006	0.002	0.030	0.020
24-SEP-94 20:42:45 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	80	97	0.00	13.9	15.2	-0	0.000	0.000	0.009	0.005	0.006	0.004	0.009	0.002	0.039	0.035
24-SEP-94 20:52:45 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	79	96	0.00	13.9	15.1	-0	0.000	0.000	0.007	0.007	0.006	0.002	0.010	0.002	0.039	0.017
24-SEP-94 21:02:45 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	79	96	0.00	13.9	15.1	-1	0.000	0.000	0.006	0.006	0.007	0.002	0.004	0.006	0.045	0.021
24-SEP-94 21:12:45 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	79	96	0.00	13.9	15.1	-1	0.000	0.000	0.005	0.007	0.006	0.005	0.005	0.004	0.035	0.020
24-SEP-94 21:22:45 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	79	96	0.00	13.9	15.2	-0	0.000	0.000	0.011	0.004	0.005	0.005	0.007	0.004	0.034	0.005
24-SEP-94 21:32:45 237 FAIL	0.00	0.00	33.1	7	0.000	16	15	18	0.00	0.00	0	1	79	96	0.00	13.9	15.2	-0	0.000	0.000	0.004	0.006	0.002	0.001	0.009	0.005	0.039	0.028
24-SEP-94 21:42:44 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	79	96	0.00	13.8	15.2	-0	0.000	0.000	0.010	0.037	0.005	0.005	0.007	0.005	0.037	0.020
24-SEP-94 21:52:44 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	0.00	0.00	0	1	79	95	0.00	13.9	15.0	-0	0.000	0.000	0.007	0.006	0.005	0.004	0.004	0.002	0.039	0.031
24-SEP-94 22:02:44 237 FAIL	0.00	0.00	33.1	7	0.000	15	15	18	[illegible]	[illegible]	0	1	79	[illegible]	[illegible]	13.9	15.1	-1	0.000	0.000	[illegible]	[illegible]	[illegible]	0.444	0.306	0.002	0.035	0.015

[illegible] (word error in feed pump?)

LFSPE OXYGEN GENERATION

DATE TIME ANOM STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-406	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP700 PSID	DP749-1 PSID	DP749-2 PSID	T762-1 F	T736-1 F	CALC745 GPM	LEV405-1 CU IN	LEV405-2 CU IN	I766 AMPS	N2V760-1 V	N2V760-2 V	N2V760-3 V	N2V760-4 V	N2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
25-SEP-94 13:21:00 500 PURGE	0.00	0.00	33.1	7	0.132	15	15	28	2.90	0.01	0	2	82	94	0.36	15.1	15.1	-0	0.002	0.729	0.011	0.005	1.005	0.700	1.341	0.632	0.654	0.001
25-SEP-94 13:22:00 500 PURGE	0.00	0.00	33.1	6	0.130	15	16	27	2.93	0.00	0	2	82	94	0.42	14.9	15.0	-1	1.093	1.094	1.101	1.088	1.139	0.166	0.190	0.147	0.175	0.049
25-SEP-94 13:23:00 500 PURGE	0.00	0.00	33.1	6	0.131	15	16	27	2.87	0.00	0	2	82	94	0.37	15.0	15.1	-1	1.160	1.156	1.155	1.155	1.149	0.095	0.074	0.055	0.099	0.063
25-SEP-94 13:24:00 500 PURGE	0.00	0.00	33.1	6	0.131	15	16	27	2.94	0.00	0	2	82	94	0.32	15.2	15.1	-1	1.172	1.171	1.170	1.171	1.159	0.017	0.051	0.036	0.081	0.056
25-SEP-94 13:25:00 500 PURGE	0.00	0.00	33.1	6	0.132	15	15	26	2.97	0.00	0	2	82	94	0.35	15.1	15.1	-1	1.182	1.181	1.176	1.173	1.154	0.013	0.040	0.029	0.060	0.026
25-SEP-94 13:26:00 500 PURGE	0.00	0.00	33.1	6	0.131	15	15	26	2.94	0.00	0	2	82	94	0.37	15.1	15.2	-1	1.173	1.177	1.160	1.172	1.150	0.013	0.046	0.035	0.072	0.021
25-SEP-94 13:27:00 500 PURGE	0.00	0.00	33.1	6	0.136	15	16	26	2.96	0.00	0	2	82	94	0.37	15.1	15.2	-1	1.182	1.187	1.177	1.175	1.159	0.012	0.020	0.023	0.061	0.011
25-SEP-94 13:27:59 500 PURGE	0.00	0.00	33.1	6	0.136	15	16	26	2.93	0.00	0	2	82	93	0.36	15.1	15.0	-0	1.182	1.177	1.184	1.170	1.153	0.007	0.027	0.021	0.057	0.015
25-SEP-94 13:29:00 500 PURGE	0.96	0.00	33.1	6	0.137	15	15	26	2.88	0.00	0	2	82	94	0.34	15.0	15.2	-0	1.181	1.170	1.173	1.173	1.153	0.005	0.020	0.021	0.060	0.012
25-SEP-94 13:29:59 500 PURGE	0.00	0.00	33.1	5	0.137	15	15	25	2.91	0.10	0	2	82	94	0.40	15.1	15.1	-0	1.181	1.183	1.183	1.171	1.156	0.007	0.025	0.017	0.041	0.033
25-SEP-94 13:31:00 500 PURGE	0.00	0.00	33.1	5	0.139	15	15	25	2.88	0.00	0	2	83	94	0.40	15.0	14.9	-0	1.183	1.182	1.184	1.170	1.158	[illegible]	0.033	0.022	0.055	0.042
25-SEP-94 13:32:00 500 PURGE	0.00	0.00	33.1	4	0.137	15	15	25	2.92	0.00	0	2	83	94	0.39	13.9	15.1	-1	1.183	1.178	1.179	1.173	1.153	0.002	0.034	0.017	0.049	0.007
25-SEP-94 13:33:00 500 PURGE	0.00	0.00	33.1	4	0.140	15	18	25	2.93	0.00	0	6	83	93	0.40	13.9	15.1	-0	1.183	1.182	1.187	1.172	1.156	0.002	0.032	0.018	0.051	0.035
25-SEP-94 13:33:59 500 PURGE	0.00	0.00	33.1	4	0.141	15	21	24	2.79	0.00	3	7	83	94	0.30	13.8	15.0	-1	1.181	1.183	1.167	1.176	1.155	0.004	0.034	0.016	0.053	0.042
25-SEP-94 13:34:59 500 PURGE	0.00	0.00	33.1	3	0.141	15	21	24	2.90	0.00	3	7	83	94	0.40	13.9	15.0	-1	1.184	1.183	1.183	1.175	1.156	0.005	0.029	0.011	0.049	0.016
25-SEP-94 13:36:00 500 PURGE	0.00	0.00	33.1	3	0.143	15	32	24	2.79	0.00	15	10	83	94	0.39	13.8	15.1	-1	1.178	1.183	1.178	1.175	1.154	0.007	0.029	0.016	0.053	0.017
25-SEP-94 13:36:59 500 PURGE	0.00	0.00	33.1	3	0.144	15	43	25	2.86	0.00	26	29	83	94	0.38	13.9	15.1	-0	1.176	1.176	1.178	1.181	1.150	0.011	0.031	0.017	0.040	0.033
25-SEP-94 13:37:59 500 PROCESS-VENT	1.60	0.20	33.1	4	1.560	16	54	24	2.20	4.35	37	39	84	93	0.23	0.0	16.4	12	1.195	1.200	1.193	1.192	1.155	0.004	0.013	0.010	0.040	0.020
25-SEP-94 13:38:05 230 FAIL	2.49	0.31	33.1	4	1.594	17	55	24	2.30	2.97	36	39	84	94	0.28	0.0	16.4	13	1.199	1.205	1.190	1.194	1.151	0.004	0.004	0.016	0.042	0.046

DATE: 25-SEP-94　　LFSPE OXYGEN GENERATION　　TIME: 13:38:19
MODE: ON　　STATE: FAIL　　STATUS: LEVEL 2 ANOMALY

LEV606-5 = "ON"; unable to start-up
of bellows at -4 position.

OXYGEN PRODUCTION RATE: 0.00 LB/DAY　　HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 33.1 HOURS　　LAST 406 LEVEL: 5

2 V003 FILL1/DRAIN2	LEV406-1 OFF	P706-1 18 PSIA
V005-1 VENT	LEV406-2 OFF	P706-2 54 PSIA
V005-2 VENT	LEV406-3 OFF	P706-3 23 PSIA
V051-1 OPEN	LEV406-4 OFF	DP709 1.97 PSID
V051-2 CLOSED	2 LEV406-5 OFF	DP700 0.26 PSID
V053 CLOSED	2 LEV406-6 OFF	DP749-1 39 PSID
2 V091-1 CLOSED	2 LEV406-7 OFF	DP749-2 39 PSID
2 V091-2 CLOSED	PUR705 OFF	T762-1 84 F
V091-3 CLOSED		T762-2 84 F
V091-4 CLOSED	CALC745 0.29 GPM	T736-1 94 F
FAN922 OFF	LEV405-1 0.0 CU IN	T736-2 95 F
PMP463 ON	LEV405-2 16.3 CU IN	P713 9 PSIG
2 PMP469 OFF		

ANOMAL*: Recirc. loop water accumulator high level sensor(ITEM 406-5 thru -7)ON
ADVICE: Check feed water supply (ITEMS 464, 001-1, 001-2, and 003).

(F1) PAGE　(F4) CONFIG CNTRL　(F7) ACKNOWLEDGE　(F10) MODIFY OPER
(F2) SUBSYSTEM PARA　(F5) MANUAL OPER　(F8) DATA LOGGING
(F3) MODE SELECTION　(F6) VIEW OPER　(F9) EXIT　　PAGE 1 OF 2
25-SEP-94 13:38:59 230 FAIL　0.00 0.00 33.1 5 0.000 17 36 23 2.29 0.00 19 20 84 93 0.30 0.0 16.4 -0 1.159 1.150 1.001 1.004 0.913 0.002 0.005 0.004 0.035 0.012

LFSPE OXYGEN GENERATION

DATE	TIME	AMBH	STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-606	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP708 PSID	DP749-1 PSID	DP749-2 PSID	T742-1 F	T736-1 F	CALC745 GFM	LEV605-1 CW IN	LEV605-2 CW IN	I766 AMPS	H2V760-1 V	H2V760-2 V	H2V760-3 V	H2V760-4 V	H2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
26-SEP-94	00:15:12	500	OFF	0.00	0.00	33.1	4	0.000	13	18	14	0.29	0.00	2	3	76	77	0.09	0.0	15.2	-1	0.044	0.037	0.000	0.000	0.006	0.009	0.002	0.005	0.038	0.024
26-SEP-94	00:16:11	500	OFF	0.00	0.00	33.1	4	0.000	13	17	13	0.33	0.00	2	3	76	78	0.21	0.9	15.0	-1	0.030	0.040	0.000	0.000	0.007	0.006	0.004	0.005	0.044	0.029
26-SEP-94	00:17:11	500	OFF	0.00	0.00	33.1	4	0.000	13	17	14	0.29	0.00	2	3	76	78	0.13	0.0	15.2	-1	0.045	0.042	0.000	0.000	0.005	0.007	0.006	0.006	0.039	0.016
26-SEP-94	00:18:11	500	OFF	0.00	0.00	33.1	4	0.000	13	17	14	0.28	0.00	2	3	77	78	0.07	0.9	15.2	-1	0.031	0.037	0.000	0.000	0.004	0.002	0.005	0.004	0.043	0.018
26-SEP-94	00:19:11	500	OFF	0.00	0.00	33.1	4	0.000	13	17	14	0.30	0.00	2	3	76	78	0.15	0.0	15.2	-0	0.032	0.029	0.000	0.000	0.005	0.006	0.007	0.002	0.038	0.023
26-SEP-94	00:20:11	500	PURGE	0.00	0.00	33.1	5	0.151	14	17	15	0.24	0.00	1	2	77	78	0.00	0.0	10.1	-1	0.999	0.999	0.996	0.984	1.138	0.149	0.199	0.232	0.255	0.136
26-SEP-94	00:21:11	500	PURGE	0.00	0.00	33.1	5	0.151	14	17	15	0.26	0.00	1	2	77	78	0.00	0.0	12.4	-0	1.127	1.126	1.123	1.110	1.159	0.051	0.062	0.093	0.125	0.074
26-SEP-94	00:22:11	500	PURGE	0.00	0.00	33.1	5	0.152	15	17	15	0.25	0.00	1	1	76	78	0.00	0.0	13.9	-1	1.156	1.155	1.147	1.149	1.167	0.010	0.042	0.039	0.065	0.037
26-SEP-94	00:23:11	500	PURGE	0.00	0.00	33.1	5	0.155	15	18	16	0.22	0.00	1	1	76	78	0.00	0.0	15.2	-1	1.170	1.164	1.161	1.160	1.156	0.005	0.031	0.010	0.063	0.032
26-SEP-94	00:24:11	500	PURGE	0.00	0.00	33.1	5	0.156	15	17	16	0.21	0.00	1	1	76	78	0.00	0.0	11.4	-0	1.173	1.166	1.169	1.170	1.168	0.012	0.034	0.015	0.057	0.031
26-SEP-94	00:25:11	500	PURGE	0.00	0.00	33.1	5	0.157	16	17	17	0.22	0.00	1	1	76	78	0.00	0.9	12.7	-1	1.176	1.167	1.177	1.178	1.164	0.005	0.024	0.011	0.054	0.012
26-SEP-94	00:26:11	500	PURGE	0.00	0.00	33.1	6	0.158	16	17	17	0.26	0.00	1	0	76	78	0.00	9.9	15.1	-0	1.171	1.170	1.172	1.173	1.171	0.006	0.024	0.013	0.050	0.030
26-SEP-94	00:27:11	500	PURGE	0.00	0.00	33.1	7	0.158	15	17	29	2.30	0.00	1	1	77	78	0.29	14.0	12.5	-0	1.172	1.172	1.168	1.171	1.140	0.001	0.009	0.004	0.029	0.042
26-SEP-94	00:28:11	500	PURGE	0.00	0.00	33.1	6	0.160	15	17	27	2.48	0.00	1	1	77	78	0.24	13.9	12.7	-1	1.107	1.112	1.112	1.111	1.173	0.050	0.030	0.063	0.095	0.023
26-SEP-94	00:29:11	500	PURGE	0.00	0.00	33.1	6	0.157	14	17	27	2.52	0.00	0	2	77	77	0.33	13.9	12.6	-1	1.169	1.160	1.158	1.165	1.169	0.005	0.013	0.015	0.037	0.015
26-SEP-94	00:30:11	500	PURGE	0.00	0.00	33.1	6	0.159	14	17	27	2.55	0.00	0	2	77	78	0.30	13.9	12.6	-0	1.171	1.166	1.166	1.165	1.167	0.007	0.011	0.010	0.043	0.034
26-SEP-94	00:30:50	021	FAIL	0.00	0.00	33.1	6	0.158	14	17	25	2.31	0.00	0	2	77	78	0.00	13.9	12.6	-0	1.150	1.161	1.160	1.170	1.164	0.004	0.015	0.011	0.042	0.032
26-SEP-94	00:31:00	500	FAIL	0.00	0.00	33.1	6	0.000	14	17	20	1.42	0.00	0	2	77	79	0.05	13.9	12.7	-0	1.155	1.162	1.149	1.166	1.160	0.002	0.015	0.009	0.039	0.029
26-SEP-94	00:32:11	500	OFF	0.00	0.00	33.1	6	0.000	14	17	15	0.34	0.00	0	3	77	78	0.00	14.0	11.4	-1	1.094	1.100	1.099	1.098	1.057	0.001	0.006	0.004	0.031	0.007
26-SEP-94	00:33:11	500	OFF	0.00	0.00	33.1	6	0.000	14	17	15	0.27	0.00	0	3	77	78	0.00	13.9	11.4	-0	1.079	1.078	1.066	1.073	0.999	0.001	0.006	0.004	0.020	0.024
26-SEP-94	00:34:11	500	PURGE	0.00	0.00	33.1	6	0.160	14	17	15	0.24	0.00	0	2	77	78	0.00	15.2	11.4	-1	1.165	1.160	1.156	1.167	1.169	0.002	0.015	0.010	0.037	0.045
26-SEP-94	00:35:11	500	PURGE	0.00	0.00	33.1	6	0.159	15	17	17	0.20	0.00	0	2	77	78	0.00	12.6	11.4	-1	1.166	1.164	1.156	1.165	1.168	0.004	0.010	0.011	0.038	0.031
26-SEP-94	00:36:11	500	PURGE	0.00	0.00	33.1	6	0.160	14	17	17	0.20	0.00	0	2	77	78	0.00	12.4	11.4	-1	1.160	1.173	1.166	1.161	1.158	0.005	0.011	0.011	0.039	0.029
26-SEP-94	00:37:11	500	PURGE	0.00	0.00	33.1	7	0.160	14	17	20	2.45	0.00	0	2	77	78	0.34	12.4	11.3	-0	1.168	1.167	1.165	1.161	1.165	0.009	0.016	0.012	0.045	0.013
26-SEP-94	00:38:11	500	PURGE	0.00	0.00	33.1	6	0.160	15	17	27	2.37	0.00	0	2	77	78	0.30	12.4	11.4	-1	1.159	1.165	1.155	1.160	1.160	0.005	0.013	0.010	0.040	0.012
26-SEP-94	00:39:11	500	PURGE	0.00	0.00	33.1	6	0.159	15	17	27	2.41	0.00	0	2	78	79	0.31	12.5	11.3	-1	1.166	1.159	1.160	1.160	1.166	0.004	0.011	0.011	0.035	0.035
26-SEP-94	00:40:11	500	PURGE	0.00	0.00	33.1	6	0.160	15	17	26	2.39	0.00	0	2	77	79	0.32	12.6	11.4	-1	1.167	1.167	1.170	1.165	1.160	0.004	0.012	0.010	0.042	0.034
26-SEP-94	00:41:11	500	PURGE	0.00	0.00	33.1	6	0.158	14	17	27	2.47	0.00	0	2	78	79	0.29	12.6	11.3	-1	1.173	1.170	1.166	1.167	1.160	0.005	0.010	0.006	0.039	0.029
26-SEP-94	00:42:11	500	PURGE	0.00	0.00	33.1	6	0.158	14	16	26	2.03	0.00	0	2	77	78	0.37	12.6	11.4	-1	1.159	1.166	1.164	1.165	1.161	0.002	0.011	0.005	0.043	0.034
26-SEP-94	00:43:11	500	PURGE	0.00	0.00	33.1	6	0.158	14	17	26	2.46	0.00	0	2	78	79	0.30	12.5	11.3	-0	1.167	1.156	1.160	1.150	1.159	0.007	0.011	0.007	0.030	0.026
26-SEP-94	00:44:11	500	PURGE	0.00	0.00	33.1	6	0.157	14	17	26	2.50	0.00	0	2	78	78	0.30	12.6	11.5	-1	1.160	1.160	1.162	1.170	1.171	0.001	0.011	0.011	0.044	0.059
26-SEP-94	00:45:11	500	PURGE	0.00	0.00	33.1	6	0.158	15	17	26	2.52	0.00	0	2	78	78	0.35	12.6	11.4	-1	1.167	1.160	1.155	1.166	1.166	0.007	0.009	0.006	0.040	0.034
26-SEP-94	00:46:11	500	PURGE	0.00	0.00	33.1	6	0.156	14	17	26	2.53	0.00	0	2	78	79	0.30	12.6	11.4	-0	1.162	1.162	1.161	1.164	1.159	0.005	0.012	0.011	0.042	0.025
26-SEP-94	00:47:11	500	PURGE	0.00	0.00	33.1	5	0.158	15	17	25	2.56	0.00	0	2	78	78	0.36	12.5	11.4	-1	1.160	1.159	1.161	1.167	1.150	0.006	0.009	0.005	0.040	0.020
26-SEP-94	00:48:11	500	PURGE	0.00	0.00	33.1	5	0.158	15	17	25	2.58	0.00	0	2	78	78	0.34	12.5	11.4	-1	1.164	1.172	1.150	1.161	1.169	0.006	0.010	0.007	0.031	0.029

DATE: 26-SEP-94 LFSPE OXYGEN GENERATION TIME: 00:49:05
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 33.1 HOURS LAST 606 LEVEL: 4

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 15 PSIA
V005-1 VENT	LEV606-2 OFF	P706-2 17 PSIA
V005-2 VENT	LEV606-3 OFF	P706-3 25 PSIA

26-SEP9?0100:000?ED500 PURGE L 0.00 0.00 33.1 4 0.154 15 17 25 2.63 0.00 0 2 78 79 0.37 12.5 12.6 -1 1.165 1.166 1.161 1.164 1.166 0.002 0.007 0.007 0.038 0.016

DATE: 26-SEP-94 LFSPE OXYGEN GENERATION TIME: 00:49:17
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 33.1 HOURS LAST 606 LEVEL: 4

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 15 PSIA
V005-1 VENT	LEV606-2 OFF	P706-2 17 PSIA
V005-2 VENT	LEV606-3 OFF	P706-3 25 PSIA
V051-1 CLOSED	LEV606-4 ON	DP709 2.39 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 0.00 PSID
V053 OPEN	LEV606-6 OFF	DP749-1 0 PSID
V081 1 CLOSED	LEV606-7 OFF	DP749-2 1 PSID

V001-4 CLOSED   CALC745 0.34 GPM   T736-1   76 F
FAN422 OFF   LEV605-1 12.6 CU IN   T736-2   79 F
PMP463 ON   LEV605-2 12.6 CU IN   P713   13 PSIS
PMP464 OFF

ANOMALY:
ADVICE:

(F1) PAGE   (F4) CONFIG CNTRL   (F7) ACKNOWLEDGE   (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER   (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER   (F9) EXIT   PAGE 1 OF 2

26-SEP-94 08:50:10 500 PURGE	0.00	0.00	33.1	4	0.150	15	20	25	2.32	0.00	3	5	78	78	0.33	12.6	12.6	-1	1.170	1.150	1.162	1.170	1.150	0.005	0.011	0.004	0.038	0.048
26-SEP-94 08:51:11 500 PURGE	0.00	0.00	33.1	3	0.156	15	20	23	2.54	0.00	3	6	78	78	0.36	12.6	12.7	-0	1.171	1.168	1.159	1.161	1.156	0.004	0.010	0.006	0.042	0.028
26-SEP-94 08:51:21 500 PURGE	0.00	0.00	33.1	3	0.156	15	21	23	2.56	0.00	3	6	79	79	0.36	12.6	12.6	-0	1.167	1.170	1.166	1.164	1.166	0.005	0.013	0.010	0.045	0.029

26-SEP-94 08:53:10 500 OFF	0.00	0.00	33.1	3	0.000	14	18	15	0.31	0.00	1	4	78	78	0.00	11.4	12.7	-0	1.090	1.095	1.090	1.096	0.999	0.095	0.006	0.005	0.034	0.017
26-SEP-94 08:54:11 500 OFF	0.00	0.00	33.1	3	0.000	13	18	14	0.20	0.00	1	4	78	79	0.07	11.4	12.6	-1	1.072	1.072	1.059	1.056	0.971	0.004	0.005	0.004	0.029	0.002
26-SEP-94 08:55:10 500 PURGE	0.00	0.00	33.1	5	0.155	14	18	15	0.22	0.00	1	3	78	78	0.00	15.1	12.6	-1	1.155	1.165	1.156	1.156	1.164	0.007	0.020	0.009	0.045	0.015
26-SEP-94 08:56:11 500 PURGE	0.00	0.00	33.1	5	0.154	15	18	15	0.23	0.00	1	3	78	79	0.00	15.2	12.6	-1	1.166	1.171	1.159	1.164	1.167	0.004	0.013	0.007	0.034	0.054
26-SEP-94 08:57:11 500 PURGE	0.00	0.00	33.1	5	0.154	15	18	15	0.23	0.00	1	3	78	79	0.00	10.8	12.7	-1	1.170	1.167	1.159	1.162	1.160	0.006	0.012	0.007	0.037	0.043
26-SEP-94 08:58:11 500 PURGE	0.00	0.00	33.1	5	0.155	15	17	15	0.26	0.00	1	2	78	79	0.00	12.6	12.6	-1	1.161	1.167	1.167	1.168	1.159	0.004	0.011	0.005	0.042	0.013
26-SEP-94 08:59:10 500 PURGE	0.00	0.00	33.1	5	0.154	16	18	16	0.29	0.00	0	2	78	78	0.00	13.9	12.7	-0	1.160	1.167	1.164	1.165	1.166	0.002	0.010	0.007	0.040	0.037
26-SEP-94 09:00:10 500 PURGE	0.00	0.00	33.1	5	0.154	17	18	17	0.31	0.00	0	1	78	79	0.00	15.1	12.5	-1	1.166	1.160	1.167	1.171	1.166	0.002	0.010	0.007	0.042	0.023
26-SEP-94 09:01:11 500 PURGE	0.00	0.00	33.1	4	0.155	17	17	17	0.28	0.00	1	1	78	79	0.00	12.1	12.4	-0	1.172	1.168	1.165	1.167	1.160	0.007	0.016	0.010	0.042	0.032
26-SEP-94 09:02:10 500 PURGE	0.00	0.00	33.1	4	0.154	17	17	17	0.27	0.00	1	1	78	79	0.00	12.7	12.7	-0	1.170	1.160	1.167	1.166	1.162	0.005	0.013	0.007	0.040	0.050
26-SEP-94 09:03:10 500 PURGE	0.00	0.00	33.1	4	0.154	17	17	17	0.25	0.00	0	1	78	79	0.00	13.0	12.6	-1	1.168	1.172	1.162	1.160	1.160	0.004	0.015	0.005	0.035	0.039
26-SEP-94 09:04:10 500 PURGE	0.00	0.00	33.1	4	0.154	16	17	20	2.52	0.00	0	2	79	79	0.36	12.6	12.7	-1	1.170	1.162	1.165	1.164	1.164	0.005	0.010	0.009	0.034	0.036
26-SEP-94 09:05:10 500 PURGE	0.00	0.00	33.1	4	0.156	15	17	27	2.43	0.00	0	2	79	79	0.33	12.6	12.7	-1	1.160	1.167	1.167	1.171	1.166	0.005	0.016	0.005	0.049	0.044
26-SEP-94 09:06:10 500 PURGE	0.00	0.00	33.1	4	0.154	15	17	26	2.45	0.00	0	3	79	79	0.34	12.5	12.6	-0	1.167	1.160	1.162	1.166	1.161	0.006	0.007	0.005	0.044	0.026
26-SEP-94 09:07:10 500 PURGE	0.00	0.00	33.1	4	0.153	14	18	26	2.43	0.00	0	3	79	78	0.30	12.6	12.6	-1	1.160	1.165	1.160	1.157	1.154	0.005	0.013	0.012	0.044	0.022
26-SEP-94 09:08:10 500 PURGE	0.00	0.00	33.1	4	0.153	15	17	26	2.41	0.00	0	3	79	79	0.31	12.6	12.6	-1	1.159	1.166	1.166	1.167	1.160	0.004	0.009	0.005	0.037	0.055
26-SEP-94 09:09:10 500 PURGE	0.00	0.00	33.1	4	0.153	14	17	26	2.49	0.00	0	3	79	79	0.33	12.6	12.6	-1	1.162	1.171	1.162	1.161	1.156	0.005	0.011	0.009	0.035	0.033
26-SEP-94 09:10:10 500 PURGE	0.00	0.00	33.1	4	0.153	14	17	25	2.47	0.00	0	3	79	79	0.35	12.7	12.7	-1	1.160	1.166	1.162	1.166	1.161	0.006	0.015	0.009	0.040	0.040
26-SEP-94 09:11:10 500 PURGE	0.00	0.00	33.1	4	0.152	14	17	25	2.46	0.00	0	3	79	79	0.33	12.5	12.6	-1	1.170	1.167	1.160	1.170	1.161	0.006	0.012	0.006	0.040	0.031
26-SEP-94 09:12:10 500 PURGE	0.00	0.00	33.1	4	0.151	14	17	25	2.49	0.00	0	3	79	79	0.31	12.6	12.7	-0	1.164	1.161	1.160	1.162	1.165	0.006	0.011	0.012	0.039	0.022
26-SEP-94 09:13:10 500 PURGE	0.00	0.00	33.1	4	0.152	14	17	25	2.40	0.00	0	3	79	79	0.29	12.5	12.7	-0	1.166	1.166	1.161	1.165	1.161	0.006	0.015	0.009	0.030	0.042
26-SEP-94 09:14:10 500 PURGE	0.00	0.00	33.1	5	0.152	14	17	25	2.30	0.00	0	3	79	79	0.30	12.6	12.5	-1	1.170	1.173	1.162	1.155	1.162	0.005	0.009	0.010	0.031	0.017
26-SEP-94 09:15:10 500 PURGE	0.00	0.00	33.1	4	0.153	14	17	24	2.30	0.00	0	3	79	79	0.34	12.5	12.6	-1	1.165	1.166	1.169	1.162	1.155	0.002	0.015	0.006	0.042	0.030

DATE: 26-SEP-94   LFSPE OXYGEN GENERATION   TIME: 09:15:29
MODE: ON   STATE: PURGE   STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY   HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 33.1 HOURS   LAST 606 LEVEL: 4

V003 FILL2/DRAIN   LEV606-1 OFF   P706-1   19 PSIA
V005-1 VENT   LEV606-2 OFF   P706-2   17 PSIA
V005-2 VENT   LEV606-3 OFF   P706-3   25 PSIA
V051-1 CLOSED   LEV606-4 ON   DP709   2.34 PSID
V051-2 CLOSED   LEV606-5 OFF   DP708   0.00 PSID
V053 OPEN   LEV606-6 OFF   DP749-1 0 PSID
V001-1 CLOSED   LEV606-7 OFF   DP749-2 3 PSID
V001-2 CLOSED   PUM705 OFF   T702-1   79 F
V001-3 CLOSED   T702-2   79 F
V001-4 CLOSED   CALC745 0.33 GPM   T736-1   79 F
FAN422 OFF   LEV605-1 12.6 CU IN   T736-2   80 F
PMP463 ON   LEV605-2 13.9 CU IN   P713   12 PSIS
PMP459 OFF

ANOMALY:
ADVICE:

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[F2] SUBSYSTEM PARA   [F5] MANUAL OPER    [F8] DATA LOGGING
[F3] MODE SELECTION   [F6] VIEW OPER      [F9] EXIT              PAGE 1  OF 2
26-SEP-94 09:16:10 500 PURGE       0.00  0.00  33.1   4  0.149  14  17  23  2.31 0.00 0   3  79  79  0.36 12.6  13.9  -1  1.160  1.161  1.166  1.162  1.160 0.004 0.010 0.004 0.020 0.017
26-SEP-94 09:17:10 500 PURGE       0.00  0.00  33.1   4  0.151  15  21  23  2.40 0.00 3   6  79  79  0.30 12.5  13.9  -1  1.165  1.165  1.165  1.166  1.166 0.009 0.012 0.009 0.040 0.033
26-SEP-94 09:18:10 500 PURGE       0.00  0.00  33.1   3  0.151  15  21  24  2.37 0.00 3   6  79  79  0.32 12.6  13.9  -1  1.162  1.165  1.169  1.166  1.156 0.005 0.013 0.006 0.032 0.026

DATE: 26-SEP-94          LFSPE OXYGEN GENERATION        TIME: 09:18:33
MODE: ON                 STATE: PURGE                 STATUS: NORMAL

OXYGEN PRODUCTION RATE:  0.00 LB/DAY    HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME:      33.1 HOURS           LAST 606 LEVEL:  3
     V003  FILL2/DRAIN1    LEV606-1 OFF          P706-1   14  PSIA
     V005-1 VENT           LEV606-2 OFF          P706-2   22  PSIA
     V005-2 VENT           LEV606-3 OFF          P706-3   23  PSIA
     V051-1 CLOSED         LEV606-4 OFF          DP709   2.65 PSID
     V051-2 OPEN           LEV606-5 OFF          DP708   0.00 PSID
     V053  CLOSED          LEV606-6 OFF          DP749-1   4  PSID
     V081-1 CLOSED         LEV606-7 OFF          DP749-2   7  PSID
     V081-2 CLOSED         PUR705   OFF          T762-1   79  F
     V081-3 CLOSED                               T762-2   80  F
     V081-4 CLOSED         CALC745  0.33 GPH     T736-1   79  F
     FAN422 OFF            LEV605-1 12.6 CU IN   T736-2   80  F
     PP463 ON              LEV605-2 13.9 CU IN   P713     12  PSIG
     PP464 OFF

ANOMALY:
ADVICE:

[F1] PAGE            [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE    [F10] MODIFY OPER
[F2] SUBSYSTEM PARA  [F5] MANUAL OPER    [F8] DATA LOGGING
[F3] MODE SELECTION  [F6] VIEW OPER      [F9] EXIT               PAGE 1  OF 2
26-SEP-94 09:19:10 500 PURGE       0.00  0.00  33.1   3  0.150  15  20  25  2.41 0.00 11  13  79  79  0.32 12.6  13.9  -1  1.166  1.172  1.165  1.159  1.159 0.006 0.017 0.010 0.038 0.032
26-SEP-94 09:20:10 500 PURGE       0.00  0.00  33.1   3  0.151  15  40  24  2.50 0.00 23  25  79  79  0.31 12.6  13.9  -1  1.160  1.161  1.164  1.165  1.167 0.004 0.011 0.007 0.037 0.045

DATE: 26-SEP-94          LFSPE OXYGEN GENERATION        TIME: 09:21:07

[F2] SUBSYSTEM PARA   [F5] MANUAL OPER    [F8] DATA LOGGING
[F3] MODE SELECTION   [F6] VIEW OPER      [F9] EXIT              PAGE 1  OF 2
26-SEP-94 09:21:10 500 PROCESS-VENT   0.40  0.06  33.1   3  0.061  15  52  20  2.00 0.00 35  36  80  79  0.16 12.5  13.9  4  1.171  1.155  1.160  1.162  1.154 0.006 0.012 0.004 0.031 0.010

DATE: 26-SEP-94          LFSPE OXYGEN GENERATION        TIME: 09:21:16
MODE: ON                 STATE: PROCESS-VENT          STATUS: NORMAL

OXYGEN PRODUCTION RATE:  0.40 LB/DAY    HYDROGEN PRODUCTION RATE: 0.06 LB/DAY
OPERATING TIME:      33.1 HOURS           LAST 606 LEVEL:  3
     V003  FILL2/DRAIN1    LEV606-1 OFF          P706-1   15  PSIA
     V005-1 VENT           LEV606-2 OFF          P706-2   53  PSIA
     V005-2 VENT           LEV606-3 OFF          P706-3   20  PSIA
     V051-1 CLOSED         LEV606-4 OFF          DP709   2.06 PSID
     V051-2 OPEN           LEV606-5 OFF          DP708   0.00 PSID
     V053  CLOSED          LEV606-6 OFF          DP749-1   36  PSID
     V081-1 CLOSED         LEV606-7 OFF          DP749-2   37  PSID
     V081-2 CLOSED         PUR705   ON           T762-1   80  F
     V081-3 CLOSED                               T762-2   80  F
     V081-4 CLOSED         CALC745  0.10 GPH     T736-1   79  F
     FAN422 OFF            LEV605-1 12.6 CU IN   T736-2   80  F
     PP463 ON              LEV605-2 13.9 CU IN   P713      4  PSIG
     PP464 OFF

ANOMALY:
ADVICE:

[F1] PAGE            [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE    [F10] MODIFY OPER
[F2] SUBSYSTEM PARA  [F5] MANUAL OPER    [F8] DATA LOGGING
[F3] MODE SELECTION  [F6] VIEW OPER      [F9] EXIT               PAGE 1  OF 2
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26-SEP-94 09:23:10 500 PROCESS-VENT	9.35	1.17	33.1	5	1.011	37	71	41	2.06	2.02	51	34	62	79	0.35	12.6	14.0	49	1.175	1.176	1.178	1.172	1.156	0.006	0.005	0.010	0.010	0.002
26-SEP-94 09:24:10 500 PROCESS-VENT	11.41	1.42	33.1	3	1.959	57	82	61	2.11	2.33	58	25	86	79	0.28	12.6	14.0	60	1.170	1.179	1.178	1.171	1.150	0.009	0.004	0.015	0.045	0.024

DATE: 26-SEP-94 LFSPE OXYGEN GENERATION TIME: 09:24:20
MODE: ON STATE: PROCESS-VENT STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.32 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 33.1 HOURS LAST 406 LEVEL: 3

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 59 PSIA
V005-1 VENT	LEV606-2 ON	P706-2 84 PSIA
V005-2 VENT	LEV606-3 OFF	P706-3 44 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.14 PSID
V051-2 OPEN	LEV606-5 OFF	DP708 2.21 PSID
V053 CLOSED	LEV606-6 OFF	DP749-1 59 PSID
V081-1 CLOSED	LEV606-7 OFF	DP749-2 23 PSID
V081-2 OPEN	PUR705 ON	T762-1 86 F
V081-3 CLOSED		T762-2 87 F
V081-4 CLOSED	CALC745 0.35 GPH	T736-1 79 F
FAN422 OFF	LEV605-1 12.6 CU IN	T736-2 80 F
PMP463 ON	LEV605-2 14.0 CU IN	P713 52 PSIS
PMP464 ON		

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 1 OF 2

26-SEP-94 09:25:10 500 PROCESS-VENT	11.30	1.42	33.1	2	1.977	74	93	78	2.10	2.09	59	18	89	79	0.34	10.0	15.2	60	1.177	1.175	1.176	1.172	1.154	0.010	0.006	0.018	0.053	0.034
26-SEP-94 09:26:10 500 PROCESS-VENT	11.36	1.42	33.1	2	1.988	84	103	88	2.08	4.20	64	18	90	79	0.34	12.6	11.4	60	1.173	1.171	1.173	1.173	1.155	0.031	0.010	0.037	0.065	0.051
26-SEP-94 09:27:10 500 PROCESS-VENT	11.36	1.42	33.1	3	1.980	92	113	97	2.10	6.05	65	19	92	79	0.34	13.9	11.4	60	1.175	1.176	1.171	1.173	1.155	0.040	0.016	0.043	0.089	0.030
26-SEP-94 09:28:10 500 PROCESS-VENT	11.40	1.42	33.1	3	1.977	101	122	106	2.17	7.54	66	20	94	79	0.37	10.1	15.2	60	1.161	1.166	1.164	1.161	1.154	0.053	0.022	0.060	0.085	0.013
26-SEP-94 09:29:10 500 PROCESS-VENT	11.39	1.41	33.1	3	1.975	110	131	115	2.16	7.97	66	19	96	79	0.38	11.3	12.6	60	1.153	1.154	1.147	1.144	1.151	0.071	0.032	0.081	0.105	0.037
26-SEP-94 09:30:10 500 PROCESS-VENT	11.36	1.42	33.1	4	1.960	118	140	123	2.13	8.07	67	20	97	79	0.34	12.6	12.6	60	1.130	1.139	1.136	1.130	1.155	0.089	0.039	0.093	0.117	0.029
26-SEP-94 09:31:10 500 PROCESS-VENT	11.35	1.42	33.1	3	1.961	126	147	131	2.15	8.19	67	20	99	79	0.38	13.9	12.7	60	1.134	1.134	1.131	1.122	1.154	0.115	0.051	0.110	0.123	0.037
26-SEP-94 09:32:10 500 PROCESS-VENT	11.20	1.41	33.1	3	1.956	132	155	138	2.19	7.50	67	19	100	79	0.32	15.0	12.7	60	1.117	1.115	1.108	1.115	1.150	0.125	0.079	0.125	0.140	0.040
26-SEP-94 09:33:10 500 PROCESS-VENT	11.30	1.41	33.1	2	1.952	140	162	144	2.22	7.41	67	19	101	79	0.39	15.1	12.7	60	1.096	1.114	1.100	1.106	1.154	0.149	0.083	0.143	0.150	0.025
26-SEP-94 09:34:10 500 PROCESS-VENT	11.31	1.41	33.1	2	1.947	150	168	154	2.20	7.93	67	16	102	79	0.41	15.2	11.4	60	1.088	1.099	1.093	1.095	1.151	0.168	0.109	0.173	0.167	0.024
26-SEP-94 09:35:10 500 PROCESS-VENT	11.27	1.40	33.1	3	1.944	156	173	160	2.25	7.56	67	15	103	79	0.39	12.6	12.8	60	1.088	1.095	1.084	1.090	1.156	0.177	0.114	0.186	0.198	0.039
26-SEP-94 09:36:10 500 PROCESS-VENT	11.36	1.42	33.1	3	1.930	161	179	165	2.24	7.07	67	15	104	79	0.39	11.3	15.1	60	1.070	1.083	1.076	1.083	1.156	0.189	0.126	0.194	0.205	0.034
26-SEP-94 09:37:10 500 PROCESS-VENT	11.21	1.40	33.1	4	1.938	165	183	170	2.27	7.33	67	16	105	79	0.34	12.6	12.5	60	1.070	1.076	1.056	1.073	1.153	0.206	0.147	0.216	0.199	0.039
26-SEP-94 09:38:10 500 PROCESS-VENT	11.35	1.42	33.1	4	1.920	166	187	171	2.30	7.17	67	18	105	79	0.39	13.9	12.6	60	1.061	1.061	1.057	1.062	1.148	0.214	0.155	0.227	0.220	0.033
26-SEP-94 09:39:10 500 PROCESS-VENT	11.27	1.41	33.1	3	1.924	169	190	174	2.33	6.43	66	18	106	80	0.40	15.1	12.6	60	1.057	1.048	1.048	1.053	1.161	0.225	0.168	0.241	0.238	0.050
26-SEP-94 09:40:09 500 PROCESS-VENT	11.30	1.41	33.1	3	1.918	172	193	177	2.33	6.58	66	18	107	80	0.39	15.1	12.7	60	1.053	1.057	1.043	1.048	1.155	0.233	0.179	0.247	0.238	0.048
26-SEP-94 09:41:09 500 PROCESS-VENT	11.29	1.41	33.1	2	1.913	174	194	179	2.32	6.25	66	17	108	80	0.40	17.7	12.7	60	1.039	1.039	1.037	1.038	1.154	0.237	0.193	0.244	0.249	0.032
26-SEP-94 09:42:09 500 PROCESS-VENT	11.34	1.41	33.1	2	1.908	176	194	181	2.38	6.36	66	15	108	80	0.39	15.2	11.5	60	1.034	1.039	1.037	1.026	1.155	0.238	0.208	0.269	0.258	0.028
26-SEP-94 09:43:10 500 PROCESS-VENT	11.25	1.40	33.1	3	1.906	176	194	182	2.40	5.67	66	15	109	80	0.34	12.7	12.6	60	1.032	1.029	1.031	1.026	1.153	0.241	0.188	0.265	0.260	0.029
26-SEP-94 09:44:10 500 PROCESS-VENT	11.32	1.41	33.1	3	1.902	176	195	182	2.43	5.51	66	15	109	81	0.38	11.4	15.1	60	1.034	1.042	1.033	1.024	1.160	0.247	0.203	0.269	0.259	0.043
26-SEP-94 09:45:09 500 PROCESS-VENT	11.24	1.40	33.1	4	1.899	176	195	181	2.46	5.71	66	16	110	80	0.42	12.6	13.0	60	1.024	1.026	1.032	1.026	1.153	0.250	0.201	0.266	0.266	0.046
26-SEP-94 09:46:09 500 PROCESS-VENT	11.27	1.40	33.1	4	1.894	174	194	180	2.45	5.25	65	17	111	81	0.37	14.0	13.0	60	1.027	1.020	1.022	1.024	1.154	0.261	0.220	0.270	0.269	0.042
26-SEP-94 09:47:09 500 PROCESS-VENT	11.29	1.41	33.1	3	1.887	173	194	179	2.49	5.39	65	18	112	81	0.41	15.1	13.9	60	1.020	1.020	1.020	1.026	1.156	0.271	0.231	0.274	0.266	0.031
26-SEP-94 09:48:09 500 PROCESS-VENT	11.28	1.41	33.1	3	1.884	174	194	179	2.52	4.89	65	18	112	81	0.42	16.4	13.9	60	1.023	1.024	1.020	1.022	1.149	0.264	0.225	0.277	0.271	0.024
26-SEP-94 09:49:09 500 PROCESS-VENT	11.28	1.41	33.1	2	1.879	175	194	180	2.49	4.84	65	17	113	81	0.41	17.6	13.9	60	1.026	1.021	1.023	1.022	1.156	0.267	0.233	0.276	0.275	0.040
26-SEP-94 09:50:09 500 PROCESS	11.28	1.40	33.1	2	1.881	177	194	182	2.49	5.17	65	15	113	81	0.43	10.9	10.1	60	1.021	1.022	1.021	1.017	1.151	0.264	0.230	0.277	0.289	0.040
26-SEP-94 09:51:09 500 PROCESS	11.26	1.40	33.1	3	1.877	176	194	182	2.56	5.07	65	15	113	81	0.42	15.1	12.7	60	1.024	1.023	1.021	1.020	1.145	0.269	0.234	0.281	0.277	0.020
26-SEP-94 09:52:09 500 PROCESS	11.30	1.41	33.1	3	1.874	177	194	182	2.49	4.92	65	15	114	81	0.42	12.5	14.0	60	1.017	1.021	1.016	1.013	1.154	0.274	0.234	0.286	0.280	0.030
26-SEP-94 09:53:09 500 PROCESS	11.26	1.40	33.2	4	1.872	177	194	182	2.51	4.58	65	15	114	81	0.43	11.4	14.0	60	1.023	1.017	1.016	1.013	1.154	0.269	0.236	0.291	0.287	0.081
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.282	0.291	0.028
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.282	0.291	0.028
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.282	0.291	0.028
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.282	0.291	0.028
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.282	0.291	0.028
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.019	1.147	0.275	0.245	0.282	0.291	0.028
26-SEP-94 09:53:40 500 PROCESS	11.27	1.40	33.2	4	1.867	175	194	181	2.52	5.35	65	17	114	81	0.43	12.5	13.0	60	1.015	1.022	1.022	1.012	1.147	0.275	0.245	0.282	0.291	0.028
[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

26-SEP-94 09:53:40	500	PROCESS	11.27	1.40	33.2	4	1.067	175	194	101	2.52	5.35	65	17	114	01	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.202	0.291	0.020
26-SEP-94 09:53:40	500	PROCESS	11.27	1.40	33.2	4	1.067	175	194	101	2.52	5.35	65	17	114	01	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.202	0.291	0.020
26-SEP-94 09:53:40	500	PROCESS	11.27	1.40	33.2	4	1.067	175	194	101	2.52	5.35	65	17	114	01	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.202	0.291	0.020
26-SEP-94 09:53:40	500	PROCESS	11.27	1.40	33.2	4	1.067	175	194	101	2.52	5.35	65	17	114	01	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.202	0.291	0.020
26-SEP-94 09:53:40	500	PROCESS	11.27	1.40	33.2	4	1.067	175	194	101	2.52	5.35	65	17	114	01	0.43	12.5	13.0	60	1.015	1.022	1.022	1.010	1.147	0.275	0.245	0.202	0.291	0.020
26-SEP-94 10:00:09	500	OFF	11.27	1.40	33.2	4	0.000	16	18	16	0.16	0.00	4	2	90	03	0.00	14.0	13.9	0	0.763	0.761	0.479	0.444	0.929	0.010	0.004	0.001	0.042	0.010
26-SEP-94 10:09:09	501	OFF	0.00	0.00	33.2	4	0.000	16	17	14	0.30	0.00	5	2	90	03	0.00	14.0	13.9	-0	0.760	0.760	0.456	0.459	0.967	0.009	0.002	0.002	0.031	0.015

LFSPE OXYGEN GENERATION

DATE TIME AMDN STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-606	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP700 PSID	DP749-1 PSID	DP749-2 PSID	T762-1 F	T736-1 F	CALC745 GPM	LEV605-1 CU IN	LEV605-2 CU IN	I766 AMPS	H2V760-1 V	H2V760-2 V	H2V760-3 V	H2V760-4 V	H2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
26-SEP-94 10:10:07 500 PURGE	0.00	0.00	33.2	4	1.297	16	17	17	0.22	0.00	4	2	97	83	0.00	13.9	12.6	-0	0.006	0.005	0.030	0.027	1.079	0.233	0.272	0.526	0.519	0.171
26-SEP-94 10:11:06 500 PURGE	0.00	0.00	33.2	4	1.204	17	18	17	0.12	0.00	4	1	97	83	0.00	13.9	15.1	-0	1.090	1.090	1.100	1.090	1.159	0.123	0.103	0.128	0.167	0.045
26-SEP-94 10:12:06 500 PURGE	0.00	0.00	33.2	7	1.260	16	17	17	0.23	0.00	4	2	96	83	0.00	13.9	12.6	-0	1.142	1.151	1.140	1.137	1.161	0.050	0.043	0.045	0.090	0.021
26-SEP-94 10:13:06 500 PURGE	0.00	0.00	33.2	7	1.252	16	18	16	0.17	0.00	4	2	96	83	0.00	14.0	12.7	-0	1.165	1.161	1.150	1.155	1.151	0.027	0.024	0.027	0.042	0.033
26-SEP-94 10:14:06 500 PURGE	0.00	0.00	33.2	7	1.241	16	17	17	0.10	0.00	4	2	95	83	0.00	13.9	12.6	-0	1.161	1.150	1.165	1.160	1.156	0.016	0.023	0.010	0.053	0.030
26-SEP-94 10:15:06 500 PURGE	0.00	0.00	33.2	7	1.229	17	17	17	0.10	0.00	4	2	95	84	0.00	13.9	12.7	-0	1.166	1.160	1.164	1.160	1.154	0.013	0.013	0.015	0.051	0.026
26-SEP-94 10:16:06 500 PURGE	0.00	0.00	33.2	7	1.217	16	17	17	0.21	0.00	4	2	95	84	0.00	13.9	12.6	-0	1.171	1.170	1.171	1.166	1.155	0.013	0.009	0.012	0.046	0.030
26-SEP-94 10:17:06 500 PURGE	0.00	0.00	33.2	7	1.205	16	18	16	0.18	0.00	4	2	94	84	0.00	14.0	12.5	-0	1.170	1.167	1.160	1.176	1.151	0.011	0.016	0.017	0.046	0.023
26-SEP-94 10:18:06 500 PURGE	0.00	0.00	33.2	7	1.183	16	17	17	0.18	0.00	4	2	94	84	0.00	13.9	12.5	-0	1.176	1.173	1.166	1.173	1.164	0.015	0.016	0.012	0.040	0.040
26-SEP-94 10:19:06 500 OFF	0.00	0.00	33.2	7	0.000	16	17	16	0.20	0.00	4	2	94	84	0.00	13.9	12.6	-0	1.154	1.156	1.159	1.156	1.132	0.005	0.007	0.006	0.030	0.022
26-SEP-94 10:20:06 500 OFF	0.00	0.00	33.2	7	0.000	15	17	16	0.21	0.00	4	2	93	84	0.00	13.9	12.6	-0	1.159	1.161	1.162	1.165	1.144	0.006	0.009	0.006	0.042	0.023
26-SEP-94 10:21:06 500 PURGE	0.00	0.00	33.2	7	1.104	16	17	16	0.22	0.00	4	2	90	84	0.00	15.1	12.6	-0	1.173	1.165	1.162	1.160	1.151	0.013	0.018	0.011	0.040	0.039
26-SEP-94 10:22:06 500 PURGE	0.00	0.00	33.2	7	1.075	16	17	17	0.55	0.00	4	1	88	85	0.00	13.9	12.7	-0	1.172	1.171	1.172	1.166	1.150	0.013	0.010	0.012	0.043	0.026
26-SEP-94 10:23:06 500 OFF	0.00	0.00	33.2	7	0.000	16	17	16	0.31	0.00	4	2	91	85	0.00	13.0	12.6	-0	1.137	1.139	1.142	1.143	1.115	0.005	0.006	0.002	0.039	0.021
26-SEP-94 10:24:06 500 OFF	0.00	0.00	33.2	7	0.000	16	17	17	0.20	0.00	4	2	92	84	0.00	13.9	12.7	-0	1.070	1.066	1.083	1.081	1.034	0.004	0.009	0.005	0.039	0.023
26-SEP-94 10:25:06 500 OFF	0.00	0.00	33.2	7	0.000	16	17	17	0.26	0.00	4	2	91	84	0.00	13.9	12.5	-0	1.029	1.021	1.046	1.035	0.990	0.002	0.005	0.004	0.039	0.034
26-SEP-94 10:26:06 500 PURGE	0.00	0.00	33.2	7	0.906	16	17	17	0.26	0.00	4	2	91	84	0.00	13.9	12.6	-0	1.129	1.136	1.130	1.125	1.153	0.065	0.059	0.050	0.095	0.034
26-SEP-94 10:27:06 500 PURGE	0.00	0.00	33.2	6	0.867	16	17	17	0.40	0.00	4	1	95	84	0.00	15.1	12.7	-0	1.173	1.170	1.171	1.167	1.160	0.010	0.017	0.010	0.043	0.016
26-SEP-94 10:28:08 500 PURGE	0.00	0.00	33.2	6	0.824	15	17	27	2.54	0.00	4	2	96	84	0.44	15.1	12.6	-1	1.172	1.165	1.175	1.160	1.154	0.011	0.010	0.010	0.050	0.027
26-SEP-94 10:29:06 500 PURGE	0.00	0.00	33.2	6	0.786	15	17	27	2.87	0.00	4	2	96	84	0.41	15.0	12.5	-0	1.173	1.167	1.171	1.166	1.150	0.012	0.011	0.009	0.035	0.026
26-SEP-94 10:30:06 500 PURGE	0.00	0.00	33.2	6	0.734	15	17	27	2.97	0.00	4	3	96	84	0.36	15.1	12.5	-0	1.175	1.172	1.160	1.171	1.149	0.015	0.016	0.010	0.039	0.023
26-SEP-94 10:31:06 500 PURGE	0.00	0.00	33.2	6	0.691	15	17	27	3.14	0.00	4	3	96	84	0.35	15.1	12.5	-0	1.170	1.161	1.160	1.166	1.159	0.012	0.020	0.013	0.053	0.032
26-SEP-94 10:32:06 500 PURGE	0.00	0.00	33.2	6	0.651	15	17	26	3.17	0.00	4	3	95	84	0.35	15.1	12.6	-0	1.173	1.171	1.165	1.172	1.150	0.016	0.013	0.011	0.040	0.021
26-SEP-94 10:33:06 500 PURGE	0.00	0.00	33.2	5	0.619	15	17	26	3.16	0.00	4	2	95	84	0.38	15.1	12.6	-1	1.172	1.171	1.160	1.159	1.154	0.009	0.013	0.011	0.050	0.011
26-SEP-94 10:34:06 500 PURGE	0.00	0.00	33.2	5	0.580	15	17	25	3.12	0.00	4	2	95	84	0.38	15.0	12.6	-0	1.170	1.175	1.175	1.165	1.154	0.012	0.012	0.009	0.039	0.013
26-SEP-94 10:35:06 500 PURGE	0.00	0.00	33.2	4	0.563	15	17	26	3.12	0.00	4	3	95	85	0.39	15.2	15.1	-0	1.172	1.166	1.160	1.160	1.150	0.012	0.011	0.011	0.045	0.035
26-SEP-94 10:36:06 500 PURGE	0.00	0.00	33.2	4	0.536	15	20	26	3.03	0.00	7	5	95	85	0.39	15.1	15.1	-0	1.170	1.167	1.172	1.160	1.150	0.006	0.009	0.011	0.049	0.037
26-SEP-94 10:37:06 500 PURGE	0.00	0.00	33.2	4	0.509	15	21	26	2.94	0.00	7	6	94	84	0.39	15.2	15.2	-0	1.165	1.166	1.156	1.164	1.150	0.015	0.009	0.009	0.046	0.029
26-SEP-94 10:38:06 500 PURGE	0.00	0.00	33.2	4	0.484	15	22	26	2.90	0.00	9	8	94	85	0.36	15.1	15.2	-0	1.167	1.165	1.171	1.160	1.140	0.012	0.012	0.013	0.043	0.006
26-SEP-94 10:39:06 500 PURGE	0.00	0.00	33.2	4	0.464	15	34	26	2.85	0.00	21	19	94	84	0.36	15.1	15.1	-0	1.172	1.168	1.171	1.164	1.160	0.012	0.010	0.012	0.044	0.010
26-SEP-94 10:40:06 500 PURGE	0.00	0.00	33.2	3	0.443	14	46	23	2.77	0.00	33	31	94	85	0.38	15.1	15.1	-0	1.170	1.160	1.164	1.165	1.153	0.007	0.011	0.010	0.030	0.029
26-SEP-94 10:41:06 500 PROCESS-VENT	3.25	0.40	33.2	3	1.609	17	55	23	2.28	0.94	37	30	94	85	0.26	15.1	15.2	17	1.150	1.150	1.151	1.130	1.121	0.042	0.029	0.020	0.087	0.222
26-SEP-94 10:42:06 500 PROCESS-VENT	7.07	0.88	33.2	3	1.719	28	65	33	2.17	1.28	45	37	94	85	0.36	15.1	15.1	39	1.170	1.164	1.171	1.167	1.154	0.016	0.017	0.018	0.055	0.042
26-SEP-94 10:43:06 500 PROCESS-VENT	11.35	1.41	33.2	3	1.855	48	76	53	2.17	2.14	56	28	96	85	0.37	18.1	15.1	60	1.167	1.160	1.164	1.167	1.155	0.016	0.020	0.010	0.051	0.031
26-SEP-94 10:44:06 500 PROCESS-VENT	11.37	1.42	33.2	3	1.891	68	87	73	2.11	1.83	58	18	98	85	0.35	18.1	11.4	60	1.170	1.159	1.162	1.165	1.153	0.032	0.029	0.024	0.059	0.033
26-SEP-94 10:45:06 500 PROCESS-VENT	11.42	1.42	33.2	3	1.905	77	97	83	2.18	2.11	62	19	100	85	0.36	12.6	16.4	60	1.155	1.149	1.159	1.156	1.140	0.043	0.034	0.030	0.085	0.045
26-SEP-94 10:46:05 500 PROCESS-VENT	11.42	1.42	33.2	4	1.909	85	107	91	2.21	6.25	64	20	101	85	0.36	13.9	14.0	60	1.140	1.140	1.139	1.131	1.130	0.066	0.049	0.062	0.087	0.026
26-SEP-94 10:47:06 500 PROCESS-VENT	11.39	1.41	33.2	4	1.906	95	117	100	2.26	7.03	62	20	103	84	0.38	15.1	13.9	60	1.120	1.132	1.132	1.129	1.151	0.083	0.057	0.081	0.099	0.020
26-SEP-94 10:48:06 500 PROCESS-VENT	11.39	1.42	33.2	3	1.904	104	126	109	2.30	7.26	63	20	104	85	0.40	16.4	14.0	60	1.125	1.132	1.123	1.122	1.153	0.116	0.090	0.109	0.115	0.020
26-SEP-94 10:49:05 500 PROCESS-VENT	11.33	1.41	33.2	3	1.900	113	134	117	2.33	7.34	64	20	104	85	0.37	17.6	13.9	60	1.110	1.115	1.110	1.112	1.149	0.136	0.098	0.125	0.131	0.020
26-SEP-94 10:50:05 500 PROCESS-VENT	11.37	1.42	33.2	2	1.899	122	143	127	2.34	7.33	65	18	104	85	0.35	19.0	11.5	60	1.103	1.105	1.095	1.104	1.153	0.147	0.115	0.132	0.158	0.024
26-SEP-94 10:51:05 500 PROCESS-VENT	11.31	1.41	33.2	2	1.897	131	150	136	2.35	0.00	65	17	107	85	0.39	17.6	11.3	60	1.095	1.094	1.094	1.093	1.154	0.168	0.126	0.153	0.170	0.017
26-SEP-94 10:52:06 500 PROCESS-VENT	11.34	1.41	33.2	3	1.894	138	157	144	2.39	0.00	46	17	108	85	0.38	13.9	13.9	60	1.083	1.077	1.073	1.080	1.159	0.190	0.147	0.170	0.189	0.035
26-SEP-94 10:53:05 500 PROCESS-VENT	11.29	1.41	33.2	3	1.890	145	164	150	2.29	7.07	46	17	108	85	0.35	11.9	15.1	60	1.066	1.060	1.067	1.060	1.159	0.198	0.156	0.194	0.203	0.033
26-SEP-94 10:54:05 500 PROCESS-VENT	11.31	1.41	33.2	3	1.891	150	170	156	2.32	7.26	46	17	109	85	0.37	12.6	12.7	60	1.061	1.060	1.061	1.056	1.149	0.203	0.160	0.204	0.209	0.026
26-SEP-94 10:55:06 500 PROCESS-VENT	11.28	1.41	33.2	4	1.888	154	175	160	2.38	7.30	46	19	110	85	0.35	12.4	12.6	60	1.055	1.063	1.057	1.050	1.150	0.238	0.181	0.233	0.228	0.044
26-SEP-94 10:56:05 500 PROCESS-VENT	11.30	1.41	33.2	3	1.883	159	180	164	2.39	7.43	45	19	111	85	0.39	13.9	12.4	60	1.050	1.049	1.043	1.040	1.150	0.233	0.192	0.240	0.241	0.046
26-SEP-94 10:57:05 500 PROCESS-VENT	11.28	1.41	33.2	3	1.879	163	184	169	2.43	7.37	45	19	111	85	0.39	15.2	12.6	60	1.037	1.035	1.030	1.032	1.159	0.256	0.203	0.260	0.241	0.040
26-SEP-94 10:58:05 500 PROCESS-VENT	11.22	1.40	33.2	3	1.873	167	188	172	2.43	7.03	45	19	112	85	0.40	17.5	12.5	60	1.033	1.026	1.029	1.027	1.145	0.270	0.231	0.277	0.261	0.040
26-SEP-94 10:59:05 500 PROCESS-VENT	11.24	1.40	33.2	2	1.873	173	191	178	2.40	7.03	45	16	113	85	0.41	16.4	11.3	60	1.023	1.022	1.027	1.027	1.156	0.274	0.234	0.282	0.276	0.035
26-SEP-94 11:00:05 500 PROCESS-VENT	11.26	1.40	33.2	3	1.870	175	193	181	2.47	6.55	45	15	113	85	0.38	13.0	12.5	60	1.017	1.016	1.016	1.020	1.153	0.284	0.242	0.277	0.272	0.033
26-SEP-94 11:01:05 500 PROCESS-VENT	11.23	1.40	33.2	3	1.871	177	195	183	2.46	5.85	45	15	113	85	0.38	10.0	13.9	60	1.020	1.026	1.010	1.011	1.154	0.289	0.250	0.273	0.287	0.035
26-SEP-94 11:02:05 500 PROCESS-VENT	11.26	1.40	33.2	3	1.867	177	194	183	2.49	5.97	45	15	114	85	0.40	12.5	14.0	60	1.009	1.020	1.011	1.016	1.151	0.302	0.250	0.297	0.288	0.037
26-SEP-94 11:03:05 500 PROCESS-VENT	11.32	1.41	33.2	3	1.865	177	194	183	2.48	5.58	45	15	114	85	0.41	13.9	11.5	60	1.016	1.015	1.004	1.012	1.150	0.292	0.254	0.311	0.293	0.023
26-SEP-94 11:04:05 500 PROCESS-VENT	11.25	1.40	33.2	4	1.860	176	194	180	2.53	5.09	45	10	115	85	0.39	15.0	11.4	60	1.011	0.999	1.009	1.006	1.156	0.299	0.261	0.316	0.303	0.027
26-SEP-94 11:05:05 500 PROCESS-VENT	11.30	1.41	33.2	3	1.853	173	195	179	2.50	6.40	45	10	116	85	0.41	15.1	11.3	60	1.011	1.013	1.009	1.005	1.151	0.303	0.261	0.315	0.291	0.032
26-SEP-94 11:06:05 500 PROCESS-VENT	11.28	1.41	33.2	3	1.853	173	194	179	2.57	5.10	44	10	116	86	0.43	17.6	11.3	60	1.007	0.999	1.004	1.012	1.149	0.300	0.266	0.315	0.300	0.037
26-SEP-94 11:07:05 500 PROCESS-VENT	11.27	1.40	33.2	3	1.847	173	195	179	2.61	5.71	44	10	116	86	0.42	10.9	11.5	60	0.999	1.007	1.002	1.011	1.145	0.313	0.269	0.325	0.303	0.046
26-SEP-94 11:08:05 500 PROCESS-VENT	11.27	1.41	33.2	2	1.847	177	194	182	2.55	5.53	44	15	117	85	0.40	17.6	12.4	60	0.995	1.005	0.999	1.006	1.145	0.308	0.267	0.316	0.313	0.038
26-SEP-94 11:09:05 500 PROCESS-VENT	11.30	1.41	33.2	3	1.845	177	194	192	[illegible]	[illegible]	44	15	117	85	[illegible]	[illegible]	13.9	60	0.990	1.004	[illegible]	1.995	1.145	0.316	[illegible]	[illegible]	[illegible]	0.34?

26-SEP-94 11:12:05 500 PROCESS	11.20	1.41	33.2	3	1.042	177	194	103	2.56	5.11	65	15	110	84	0.38	12.6	11.4	60	0.999	1.002	0.994	1.006	1.140	0.304	0.274	0.320	0.322	0.029

DATE: 26-SEP-94 LFSPE OXYGEN GENERATION TIME: 11:12:00
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.20 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 33.2 HOURS LAST 404 LEVEL: 3

V903 FILL1/DRAIN2	LEV606-1 OFF	P706-1 177 PSIA
V005-1 PRODUCT	LEV606-2 OFF	P706-2 194 PSIA
V005-2 PRODUCT	LEV606-3 OFF	P706-3 103 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.57 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 5.04 PSID
V053 CLOSED	LEV606-6 OFF	DP749-1 65 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 15 PSID
V001-2 OPEN	PUN705 ON	T762-1 117 F
V001-3 CLOSED		T762-2 117 F
V001-4 CLOSED	CALC745 0.41 GPH	T736-1 85 F
FAN422 OFF	LEV605-1 12.6 CU IN	T736-2 84 F
PMP443 ON	LEV605-2 11.4 CU IN	P713 172 PSIG
PMP444 ON		

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 1 OF 2

DATE: 26-SEP-94 LFSPE OXYGEN GENERATION TIME: 11:12:19
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.10 LB/DAY HYDROGEN PRODUCTION RATE: 1.39 LB/DAY
OPERATING TIME: 33.2 HOURS LAST 606 LEVEL: 3

CG746-1 -1 % LEL	H2V760-1 0.999 V	VL1906-1 1.003 V
CG746-2 -0 % LEL	H2V760-2 1.002 V	VL1906-2 1.005 V
CG746-3 -0 % LEL	H2V760-3 0.996 V	VL1906-3 1.002 V
CG746-4 -1 % LEL	H2V760-4 0.999 V	VL1906-4 1.700 V
CS755 0.0 UMHO/CM	H2V900 1.154 V	VL1906-5 1.769 V
I766 40 AMPS	H2PAVG 1.030 V	VL1906-6 1.003 V
		VL1906-7 1.079 V
	I760-1 0.313 A	VL1906-8 1.090 V
	I760-2 0.274 A	VL1906-9 1.049 V
	I760-3 0.324 A	VL1906-10 1.030 V
	I760-4 0.324 A	VL1906-11 1.905 V
	I900 0.034 A	VL1906-12 1.070 V
		CELLAVG 1.040 V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

26-SEP-94 11:13:05 500 PROCESS	11.21	1.40	33.2	4	1.036	175	194	101	2.50	4.92	64	17	110	86	0.43	15.1	11.3	60	1.002	0.990	0.991	0.990	1.149	0.309	0.277	0.322	0.321	0.023
26-SEP-94 11:14:05 500 PROCESS	11.27	1.41	33.2	3	1.033	174	194	100	2.57	5.50	64	18	110	86	0.40	15.2	13.0	60	1.001	0.999	1.001	0.994	1.140	0.315	0.277	0.332	0.314	0.027
26-SEP-94 11:15:05 500 PROCESS	11.26	1.40	33.3	3	1.030	174	194	179	2.65	4.92	64	18	119	86	0.45	15.2	15.2	60	0.999	1.002	0.990	0.991	1.150	0.314	0.280	0.324	0.327	0.007
26-SEP-94 11:16:05 500 PROCESS	11.24	1.40	33.3	3	1.027	174	194	100	2.40	4.40	64	18	119	86	0.42	15.1	15.2	60	0.999	0.994	0.903	0.990	1.140	0.317	0.275	0.320	0.325	0.034
26-SEP-94 11:17:05 500 PROCESS	11.24	1.40	33.3	2	1.033	176	194	101	2.63	5.30	64	16	119	84	0.45	15.1	17.4	60	0.991	0.993	0.994	0.991	1.151	0.316	0.271	0.330	0.326	0.032
26-SEP-94 11:18:05 500 PROCESS	11.21	1.40	33.3	2	1.049	177	195	103	2.70	5.32	64	15	115	86	0.42	12.6	18.0	60	0.999	0.991	0.991	0.999	1.153	0.300	0.269	0.330	0.330	0.050
26-SEP-94 11:19:05 500 PROCESS	11.24	1.40	33.3	3	1.041	174	194	100	2.65	5.20	64	17	116	87	0.40	12.6	17.6	60	0.995	0.995	0.990	0.984	1.154	0.315	0.275	0.332	0.324	0.040
26-SEP-94 11:20:05 500 PROCESS	11.29	1.41	33.3	3	1.039	174	195	100	2.66	4.92	64	18	117	87	0.42	13.0	15.1	60	0.991	0.900	0.905	0.930	1.140	0.317	0.277	0.326	0.332	0.029
26-SEP-94 11:21:05 500 PROCESS	11.27	1.41	33.3	3	1.036	174	195	100	2.40	4.74	64	18	117	87	0.42	15.1	12.6	60	0.994	0.990	0.909	0.909	1.154	0.316	0.287	0.336	0.330	0.026
26-SEP-94 11:22:05 500 PROCESS	11.20	1.41	33.4	3	1.033	174	195	101	2.69	5.07	64	17	110	87	0.44	15.2	10.1	60	0.907	0.905	0.904	0.993	1.151	0.315	0.284	0.335	0.330	0.032
26-SEP-94 11:23:05 500 PROCESS	11.20	1.41	33.4	4	1.029	[illegible]	194	101	2.45	[illegible]	60	18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26-SEP-94 11:26:05 500 PROCESS	11.25	1.40	33.4	3	1.029	173	194	179	2.78	4.78	43	18	119	87	0.48	13.9	16.5	60	0.993	0.994	0.987	0.988	1.151	0.322	0.284	0.336	0.331	0.057
26-SEP-94 11:27:05 500 PROCESS	11.24	1.40	33.4	2	1.043	175	194	181	2.69	4.56	44	17	115	88	0.45	12.7	17.7	60	0.993	0.987	0.985	0.990	1.150	0.319	0.287	0.337	0.303	0.045
26-SEP-94 11:28:05 500 PROCESS	11.26	1.40	33.5	2	1.040	177	195	183	2.65	4.69	43	15	116	88	0.42	11.3	17.8	60	0.983	0.988	0.988	0.990	1.153	0.322	0.294	0.341	0.347	0.022
26-SEP-94 11:29:05 500 PROCESS	11.24	1.40	33.5	2	1.036	177	195	183	2.67	4.74	44	15	117	87	0.44	12.6	15.2	60	0.990	0.988	0.988	0.983	1.145	0.320	0.287	0.343	0.343	0.026
26-SEP-94 11:30:05 500 PROCESS	11.24	1.40	33.5	3	1.032	177	195	183	2.66	5.45	44	15	118	88	0.44	14.8	13.9	60	0.982	0.990	0.982	0.983	1.150	0.335	0.293	0.349	0.342	0.031
26-SEP-94 11:31:05 500 PROCESS	11.21	1.40	33.5	3	1.032	177	195	184	2.72	5.31	43	15	118	88	0.43	15.1	11.4	60	0.980	0.995	0.985	0.984	1.155	0.320	0.289	0.346	0.347	0.022
26-SEP-94 11:32:05 500 PROCESS	11.27	1.40	33.5	3	1.020	177	195	184	2.74	5.10	43	15	118	88	0.41	14.8	12.6	60	0.991	0.994	0.988	0.983	1.144	0.324	0.293	0.348	0.346	0.018
26-SEP-94 11:33:05 500 PROCESS	11.23	1.40	33.5	3	1.024	178	195	184	2.71	5.05	44	15	119	88	0.45	11.3	13.9	60	0.984	0.996	0.988	0.976	1.151	0.327	0.292	0.341	0.344	0.031
26-SEP-94 11:34:04 500 PROCESS	11.30	1.41	33.5	3	1.023	177	195	183	2.75	4.60	43	15	119	88	0.49	11.4	15.1	60	0.985	0.979	0.979	0.982	1.144	0.330	0.300	0.349	0.353	0.042
26-SEP-94 11:35:05 500 PROCESS	11.30	1.41	33.6	4	1.021	175	195	182	2.74	4.67	43	17	119	89	0.44	12.6	13.9	60	0.979	0.991	0.982	0.974	1.151	0.330	0.283	0.354	0.344	0.029
26-SEP-94 11:36:05 500 PROCESS	11.22	1.40	33.6	3	1.034	174	195	180	2.73	4.97	43	18	114	88	0.47	14.8	13.9	60	0.984	0.987	0.980	0.979	1.153	0.335	0.298	0.352	0.347	0.055
26-SEP-94 11:37:04 500 PROCESS	11.31	1.41	33.6	3	1.041	174	195	180	2.77	5.09	43	18	115	89	0.45	15.2	13.0	60	0.985	0.979	0.983	0.979	1.145	0.339	0.286	0.347	0.338	0.033
26-SEP-94 11:38:04 500 PROCESS	11.26	1.40	33.6	3	1.035	174	195	180	2.79	5.31	43	18	116	89	0.44	17.7	13.8	60	0.983	0.977	0.979	0.980	1.140	0.336	0.289	0.342	0.350	0.045
26-SEP-94 11:39:04 500 PROCESS	11.26	1.40	33.6	2	1.030	176	195	182	2.75	5.13	43	16	117	89	0.46	17.4	12.6	60	0.993	0.984	0.983	0.984	1.130	0.339	0.289	0.344	0.350	0.039
26-SEP-94 11:40:04 500 PROCESS	11.27	1.40	33.6	2	1.025	177	195	183	2.78	5.41	43	15	117	89	0.43	17.7	11.3	60	0.982	0.985	0.980	0.985	1.147	0.341	0.291	0.347	0.339	0.034
26-SEP-94 11:41:04 500 PROCESS	11.23	1.40	33.7	2	1.024	177	195	183	2.73	5.51	43	15	118	89	0.45	15.0	12.6	60	0.985	0.974	0.984	0.977	1.149	0.342	0.294	0.344	0.344	0.033
26-SEP-94 11:42:04 500 PROCESS	11.28	1.41	33.7	3	1.023	177	194	184	2.72	5.04	43	15	119	89	0.41	13.9	14.0	60	0.983	0.988	0.978	0.980	1.150	0.337	0.306	0.344	0.352	0.026
26-SEP-94 11:43:04 500 PROCESS	11.23	1.40	33.7	3	1.020	177	195	183	2.74	4.70	43	15	119	90	0.45	12.6	15.2	60	0.988	0.970	0.974	0.984	1.144	0.341	0.291	0.348	0.346	0.041
26-SEP-94 11:44:05 500 PROCESS	11.27	1.40	33.7	3	1.020	177	195	183	2.66	4.67	43	14	119	90	0.47	12.7	15.2	60	0.978	0.980	0.980	0.984	1.140	0.342	0.294	0.344	0.357	0.029
26-SEP-94 11:45:04 500 PROCESS	11.27	1.40	33.7	3	1.019	177	195	183	2.68	4.48	43	15	119	89	0.48	13.9	12.7	60	0.988	0.982	0.980	0.982	1.153	0.337	0.300	0.355	0.353	0.070
26-SEP-94 11:46:04 500 PROCESS	11.26	1.40	33.7	3	1.034	177	195	183	2.75	4.79	43	15	115	90	0.40	13.9	11.5	60	0.985	0.974	0.976	0.978	1.148	0.342	0.302	0.353	0.340	0.029
26-SEP-94 11:47:04 500 PROCESS	11.27	1.40	33.7	3	1.035	177	195	183	2.77	5.01	43	15	115	90	0.44	13.9	12.6	60	0.984	0.978	0.983	0.980	1.140	0.339	0.298	0.349	0.348	0.030
26-SEP-94 11:48:04 500 PROCESS	11.24	1.40	33.8	4	1.029	176	195	183	2.72	5.06	43	16	117	89	0.44	12.6	13.9	60	0.984	0.977	0.976	0.988	1.147	0.336	0.308	0.347	0.333	0.042
26-SEP-94 11:49:04 500 PROCESS	11.24	1.40	33.8	4	1.024	175	195	181	2.75	4.81	43	17	118	90	0.43	12.6	15.1	60	0.977	0.989	0.985	0.979	1.147	0.342	0.303	0.350	0.348	0.021
26-SEP-94 11:50:04 500 PROCESS	11.31	1.41	33.8	3	1.021	174	195	180	2.76	4.71	43	18	118	90	0.44	12.6	14.4	60	0.977	0.977	0.971	0.982	1.144	0.348	0.305	0.357	0.346	0.027
26-SEP-94 11:51:04 500 PROCESS	11.18	1.39	33.8	3	1.020	174	195	181	2.78	4.40	43	18	119	90	0.43	12.6	17.7	60	0.984	0.980	0.983	0.979	1.149	0.348	0.303	0.350	0.348	0.020
26-SEP-94 11:52:04 500 PROCESS	11.27	1.40	33.8	2	1.025	176	195	182	2.74	4.80	43	16	118	90	0.47	12.6	19.0	60	0.976	0.983	0.979	0.974	1.140	0.342	0.302	0.353	0.358	0.007
26-SEP-94 11:53:04 500 PROCESS	11.20	1.41	33.8	2	1.037	177	195	183	2.77	4.93	43	15	115	90	0.43	12.7	17.6	50	0.952	0.980	0.979	0.976	1.144	0.335	0.308	0.350	0.350	0.033
26-SEP-94 11:54:04 500 PROCESS	11.21	1.40	33.9	2	1.020	178	195	184	2.75	4.42	43	15	116	91	0.40	13.9	15.2	60	0.979	0.978	0.979	0.977	1.145	0.343	0.306	0.353	0.353	0.017
26-SEP-94 11:55:04 500 PROCESS	11.29	1.41	33.9	2	1.026	177	195	184	2.73	4.62	43	15	117	91	0.39	15.1	13.9	60	0.976	0.977	0.960	0.977	1.145	0.347	0.306	0.358	0.361	0.020
26-SEP-94 11:56:04 500 PROCESS	11.30	1.41	33.9	3	1.021	178	195	184	2.80	4.42	43	15	118	90	0.42	16.3	11.3	60	0.979	0.979	0.772	0.971	1.153	0.347	0.313	0.359	0.347	0.066
26-SEP-94 11:57:04 500 PROCESS	11.22	1.40	33.9	3	1.921	178	195	184	2.76	4.94	43	15	118	91	0.41	15.1	11.4	60	0.993	0.977	0.971	0.976	1.140	0.346	0.315	0.355	0.355	0.007
26-SEP-94 11:58:04 500 PROCESS	11.24	1.40	33.9	3	1.917	177	195	184	2.79	4.27	43	15	118	91	0.43	12.3	13.9	60	0.979	0.988	0.977	0.973	1.144	0.349	0.315	0.361	0.355	0.035
26-SEP-94 11:59:04 500 PROCESS	11.27	1.40	33.9	3	1.017	177	195	184	2.83	4.33	43	14	119	91	0.46	11.4	15.1	60	0.978	0.979	0.982	0.974	1.143	0.348	0.310	0.357	0.346	0.041
26-SEP-94 12:00:04 500 PROCESS	11.27	1.40	33.9	3	1.013	178	195	184	2.72	5.13	43	14	119	91	0.42	12.4	13.9	60	0.979	0.973	0.969	0.968	1.149	0.344	0.319	0.353	0.357	0.034
26-SEP-94 12:01:04 500 PROCESS	11.28	1.41	33.9	3	1.023	177	195	184	2.74	5.17	43	15	118	91	0.48	13.9	11.4	60	0.974	0.976	0.978	0.969	1.153	0.339	0.311	0.349	0.344	0.053
26-SEP-94 12:02:04 500 PROCESS	11.23	1.40	34.0	3	1.033	177	195	183	2.77	5.46	43	15	115	91	0.46	13.1	11.4	60	0.983	0.982	0.971	0.974	1.148	0.346	0.314	0.354	0.354	0.035
26-SEP-94 12:03:04 500 PROCESS	11.26	1.40	34.0	3	1.020	177	195	184	2.84	4.81	43	15	115	91	0.44	13.9	12.7	60	0.978	0.983	0.988	0.985	1.150	0.346	0.313	0.353	0.346	0.020
26-SEP-94 12:04:04 500 PROCESS	11.28	1.40	34.0	4	1.025	176	195	183	2.75	5.14	43	16	117	92	0.42	12.5	15.2	60	0.978	0.973	0.974	0.976	1.163	0.350	0.309	0.356	0.350	0.040
26-SEP-94 12:05:04 500 PROCESS	11.30	1.41	34.0	4	1.020	175	195	181	2.75	5.17	43	17	118	91	0.45	12.6	15.2	60	0.773	0.774	0.773	0.978	1.155	0.346	0.314	0.354	0.353	0.042
26-SEP-94 12:06:04 500 PROCESS	11.27	1.40	34.0	3	1.016	174	195	181	2.83	4.68	43	18	119	91	0.45	12.6	17.7	60	0.976	0.980	0.984	0.976	1.147	0.347	0.309	0.348	0.347	0.045
26-SEP-94 12:07:04 500 PROCESS	11.25	1.40	34.1	3	1.013	175	195	181	2.83	4.67	43	18	119	92	0.46	12.6	17.6	60	0.971	0.979	0.977	0.978	1.153	0.343	0.311	0.355	0.357	0.029
26-SEP-94 12:08:04 500 PROCESS	11.27	1.41	34.1	2	1.026	176	195	182	2.79	4.93	43	16	117	92	0.44	11.7	20.2	60	0.990	0.988	0.977	0.973	1.151	0.349	0.310	0.354	0.348	0.028
26-SEP-94 12:09:04 500 PROCESS	11.17	1.39	34.1	2	1.033	177	195	184	2.79	5.22	44	15	115	92	0.43	12.5	17.6	60	0.982	0.983	0.969	0.988	1.147	0.352	0.310	0.355	0.350	0.031
26-SEP-94 12:10:04 500 PROCESS	11.27	1.41	34.1	2	1.025	178	195	184	2.82	4.73	43	15	117	92	0.41	13.9	16.4	60	0.979	0.976	0.983	0.960	1.147	0.343	0.315	0.354	0.352	0.049
26-SEP-94 12:11:04 500 PROCESS	11.25	1.40	34.1	2	1.021	178	195	184	2.78	4.94	43	14	117	92	0.40	15.2	14.0	60	0.977	0.978	0.974	0.979	1.145	0.352	0.319	0.364	0.355	0.031
26-SEP-94 12:12:04 500 PROCESS	11.20	1.40	34.1	2	1.019	178	195	184	2.78	4.78	43	14	118	92	0.42	14.4	12.7	60	0.973	0.978	0.977	0.974	1.145	0.349	0.314	0.360	0.343	0.037
26-SEP-94 12:13:03 500 PROCESS	11.27	1.40	34.1	3	1.018	178	196	184	2.83	4.55	43	15	118	92	0.40	17.6	11.4	60	0.978	0.988	0.973	0.973	1.153	0.346	0.314	0.359	0.354	0.016
26-SEP-94 12:14:04 500 PROCESS	11.28	1.41	34.2	3	1.015	178	195	184	2.81	4.80	44	15	119	93	0.41	15.2	12.5	60	0.977	0.974	0.974	0.967	1.150	0.342	0.313	0.363	0.358	0.032
26-SEP-94 12:15:04 500 PROCESS	11.24	1.40	34.2	3	1.014	178	195	184	2.80	4.39	43	14	119	93	0.44	12.6	13.9	60	0.977	0.972	0.972	0.969	1.140	0.346	0.324	0.354	0.359	0.002
26-SEP-94 12:16:04 500 PROCESS	11.22	1.40	34.2	3	1.017	178	195	185	2.83	4.40	43	15	119	92	0.38	11.3	15.0	60	0.979	0.980	0.976	0.960	1.147	0.346	0.314	0.353	0.354	0.018
26-SEP-94 12:17:04 500 PROCESS	11.21	1.40	34.2	3	1.029	177	196	184	2.83	4.06	43	15	116	93	0.44	12.6	13.9	60	0.979	0.978	0.966	0.977	1.153	0.344	0.311	0.355	0.357	0.032
26-SEP-94 12:18:03 500 PROCESS	11.28	1.41	34.2	3	1.023	177	195	184	2.88	4.32	43	15	115	93	0.47	13.9	12.6	60	0.976	0.979	0.983	0.979	1.145	0.349	0.317	0.353	0.352	0.045
26-SEP-94 12:19:04 500 PROCESS	11.28	1.41	34.2	3	1.021	178	195	184	2.81	4.92	43	14	117	93	0.44	15.2	11.4	60	0.979	0.980	0.979	0.977	1.144	0.349	0.311	0.352	0.350	0.040
26-SEP-94 12:20:03 500 PROCESS	11.28	1.41	34.3	3	1.016	178	196	185	2.76	4.82	43	14	118	93	0.43	13.9	12.6	60	0.977	0.984	0.987	0.979	1.145	0.366	0.330	0.374	0.375	0.057
26-SEP-94 12:21:03 500 PROCESS	11.25	1.40	34.3	3	1.016	178	195	185	2.79	4.59	43	14	118	93	0.42	12.4	14.0	60	0.998	0.996	0.990	0.990	1.144	0.353	0.320	0.357	0.339	0.046
26-SEP-94 12:22:04 500 PROCESS	11.26	1.40	34.3	3	1.013	178	195	185	2.78	4.51	43	14	119	93	0.44	11.3	13.9	60	1.001	0.991	0.990	1.004	1.140	0.347	0.322	0.359	0.358	0.045
26-SEP-94 12:23:04 500 PROCESS	11.25	1.40	34.3	4	1.011	176	195	182	2.88	4.53	42	17	119	93	0.41	12.5	13.9	60	1.001	0.990	0.995	0.994	1.148	0.352	0.310	0.359	0.357	0.049
26-SEP-94 12:24:04 500 PROCESS	11.25	1.40	34.3	3	1.024	175	195	181	2.91	4.70	42	17	116	93	0.43	14.0	13.9	60	0.999	0.999	0.994	0.995	1.150	0.353	0.312	0.360	0.360	0.077
26-SEP-94 12:25:03 500 PROCESS	11.25	1.40	34.3	3	1.032	175	195	181	2.89	4.76	42	17	115	93	0.40	15.1	13.9	60	1.004	1.001	0.991	0.993	1.153	0.349	0.319	0.361	0.365	0.020
26-SEP-94 12:26:03 500 PROCESS	11.28	1.41	34.3	2	1.021	176	195	181	2.80	4.37	42	17	117	93	0.43	16.4	13.9	60	1.004	0.991	0.987	0.990	1.139	0.355	0.320	0.366	0.361	0.037
26-SEP-94 12:27:04 500 PROCESS	11.23	1.40	34.4	2	1.018	178	195	184	2.82	4.56	42	15	117	93	0.46	17.7	11.4	60	0.993	0.993	0.991	0.995	1.150	0.354	0.306	0.353	0.360	0.054
26-SEP-94 12:28:03 500 PROCESS	11.29	1.41	34.4	2	1.017	178	196	184	2.78	4.82	42	14	118	93	0.45	17.7	11.4	60	0.995	0.999	0.993	0.999	1.150	0.349	0.311	0.366	0.361	0.038
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

26-SEP-94 12:31:03	500	PROCESS	11.26	1.40	34.4	2	1.010	170	195	105	2.05	4.26	42	14	[illegible]	95	[illegible]	[illegible]	[illegible]	60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26-SEP-94 12:32:03	500	PROCESS	11.26	1.40	34.4	3	1.011	170	196	104	2.06	4.76	42	14	119	94	0.45	12.4	15.1	60	0.995	0.990	0.991	0.994	1.143	0.354	0.317	0.350	0.344	0.024
26-SEP-94 12:33:03	500	PROCESS	11.25	1.40	34.5	3	1.026	177	195	104	2.06	4.91	42	15	115	94	0.39	12.6	13.9	60	0.990	0.999	0.994	0.991	1.140	0.352	0.321	0.363	0.346	0.032
26-SEP-94 12:34:03	500	PROCESS	11.26	1.40	34.5	3	1.024	178	196	104	2.09	5.00	42	15	115	93	0.40	15.1	11.4	60	1.005	0.999	0.990	0.994	1.131	0.349	0.314	0.353	0.350	0.032
26-SEP-94 12:35:03	500	PROCESS	11.20	1.40	34.5	3	1.019	179	195	105	2.05	5.09	42	14	117	94	0.42	13.9	11.4	60	0.994	0.999	0.996	0.989	1.140	0.355	0.322	0.360	0.340	0.031
26-SEP-94 12:36:03	500	PROCESS	11.21	1.40	34.5	3	1.016	179	195	105	2.08	4.99	42	14	118	94	0.40	12.6	12.6	60	0.996	0.993	0.987	0.989	1.155	0.352	0.320	0.370	0.341	0.043
26-SEP-94 12:37:03	500	PROCESS	11.20	1.41	34.5	3	1.014	178	195	105	2.08	4.06	42	14	118	94	0.43	11.4	13.2	60	0.998	0.988	0.984	0.999	1.150	0.350	0.324	0.357	0.358	0.043
26-SEP-94 12:38:03	500	PROCESS	11.20	1.41	34.5	3	1.011	170	195	104	2.09	4.52	42	14	119	94	0.45	12.6	13.9	60	0.998	0.996	0.996	0.993	1.147	0.352	0.324	0.359	0.350	0.039
26-SEP-94 12:39:03	500	PROCESS	11.26	1.40	34.5	3	1.011	170	196	105	2.04	4.47	42	14	119	94	0.46	13.9	12.4	60	0.993	0.990	0.987	1.001	1.145	0.355	0.317	0.350	0.365	0.023
26-SEP-94 12:40:03	500	PROCESS	11.17	1.39	34.6	3	1.011	170	195	105	2.07	4.40	42	15	119	94	0.41	15.2	10.1	60	0.993	0.999	0.993	0.993	1.151	0.358	0.314	0.363	0.361	0.010
26-SEP-94 12:41:03	500	PROCESS	11.27	1.41	34.6	3	1.024	170	196	104	2.05	4.82	42	15	115	94	0.46	15.2	12.7	60	0.991	0.996	0.994	0.999	1.145	0.353	0.316	0.365	0.360	0.004
26-SEP-94 12:42:03	500	PROCESS	11.23	1.40	34.6	3	1.020	170	196	105	2.00	4.96	42	15	114	94	0.42	12.5	14.0	60	0.999	0.991	0.993	0.995	1.150	0.357	0.314	0.359	0.344	0.042
26-SEP-94 12:43:03	500	PROCESS	11.22	1.40	34.6	3	1.019	170	196	104	2.09	4.86	42	14	117	94	0.47	11.3	15.3	60	0.991	0.990	0.988	0.999	1.130	0.355	0.317	0.366	0.350	0.010
26-SEP-94 12:44:03	500	PROCESS	11.21	1.40	34.6	4	1.013	174	196	103	2.94	4.70	42	16	117	94	0.44	12.6	15.0	60	0.987	0.994	0.980	0.990	1.136	0.354	0.321	0.359	0.346	0.043
26-SEP-94 12:45:03	500	PROCESS	11.18	1.39	34.6	3	1.012	174	195	102	2.89	4.70	41	17	118	94	0.44	13.9	15.1	60	0.999	0.989	0.991	0.988	1.147	0.352	0.327	0.377	0.354	0.040
26-SEP-94 12:46:03	500	PROCESS	11.27	1.40	34.7	3	1.011	175	195	102	2.88	4.61	41	17	119	94	0.45	15.2	15.2	60	0.994	0.994	0.989	0.996	1.150	0.354	0.316	0.370	0.340	0.023
26-SEP-94 12:47:03	500	PROCESS	11.30	1.41	34.7	2	1.019	175	196	102	2.91	4.65	42	17	117	95	0.44	15.0	15.1	60	0.993	0.989	0.987	0.989	1.149	0.346	0.317	0.365	0.366	0.027
26-SEP-94 12:48:03	500	PROCESS	11.20	1.40	34.7	2	1.027	177	196	104	2.91	4.82	41	15	115	94	0.42	17.6	12.4	60	0.996	0.999	0.990	0.990	1.140	0.346	0.313	0.360	0.360	0.020
26-SEP-94 12:49:03	500	PROCESS	11.21	1.40	34.7	2	1.010	170	196	105	2.09	4.82	41	14	116	94	0.44	19.0	11.5	60	0.994	0.987	0.980	0.990	1.149	0.352	0.317	0.375	0.371	0.033
26-SEP-94 12:50:03	500	PROCESS	11.30	1.41	34.7	2	1.016	170	195	105	2.93	5.33	41	14	117	94	0.44	17.7	12.6	60	0.995	0.991	0.993	0.983	1.147	0.355	0.320	0.363	0.364	0.020
26-SEP-94 12:51:03	500	PROCESS	11.23	1.40	34.7	2	1.013	170	196	105	2.07	5.04	42	14	118	94	0.41	15.1	13.9	60	0.990	0.996	0.984	0.991	1.144	0.353	0.325	0.366	0.365	0.055
26-SEP-94 12:52:03	500	PROCESS	11.27	1.40	34.8	2	1.010	179	196	105	2.90	4.79	42	14	110	94	0.43	13.9	15.1	60	0.991	0.999	0.987	0.990	1.143	0.354	0.322	0.375	0.357	0.030
26-SEP-94 12:53:03	500	PROCESS	11.21	1.40	34.8	2	1.010	170	196	105	2.07	4.61	41	14	119	95	0.42	12.6	16.4	60	0.991	0.989	0.987	0.994	1.140	0.354	0.322	0.375	0.377	0.010
26-SEP-94 12:54:03	500	PROCESS	11.19	1.39	34.8	3	1.007	170	196	105	2.90	4.81	41	14	119	95	0.40	12.4	16.4	60	0.991	0.996	0.987	0.989	1.153	0.350	0.326	0.374	0.370	0.020
26-SEP-94 12:55:03	500	PROCESS	11.24	1.40	34.8	3	1.020	170	196	105	2.94	4.80	42	14	116	95	0.43	12.5	14.0	60	0.994	0.991	0.994	0.988	1.142	0.350	0.325	0.363	0.364	0.020
26-SEP-94 12:56:03	500	PROCESS	11.29	1.41	34.8	3	1.025	170	195	105	2.97	4.93	41	15	114	95	0.46	13.9	12.5	60	0.990	0.995	0.990	0.998	1.137	0.354	0.321	0.369	0.372	0.061
26-SEP-94 12:57:03	500	PROCESS	11.30	1.41	34.8	3	1.014	179	196	105	2.05	4.76	41	14	116	96	0.42	15.1	11.5	60	0.996	0.994	0.996	0.990	1.145	0.360	0.326	0.370	0.341	0.035
26-SEP-94 12:58:03	500	PROCESS	11.24	1.40	34.8	3	1.013	179	196	105	2.88	5.17	41	14	117	95	0.42	13.9	12.6	60	0.990	0.989	0.990	0.999	1.150	0.357	0.326	0.366	0.344	0.029
26-SEP-94 12:59:03	500	PROCESS	11.21	1.40	34.9	3	1.011	179	196	105	2.92	5.21	42	14	118	95	0.42	12.6	13.9	60	0.993	0.991	0.993	0.994	1.151	0.353	0.325	0.366	0.372	0.029
26-SEP-94 13:00:03	500	PROCESS	11.19	1.39	34.9	3	1.009	170	196	105	2.94	4.70	42	14	119	95	0.46	11.4	15.2	60	0.994	0.993	0.991	0.990	1.143	0.350	0.322	0.360	0.364	0.006
26-SEP-94 13:01:03	500	PROCESS	11.27	1.41	34.9	3	1.007	170	196	105	2.91	4.30	42	14	119	95	0.46	12.6	12.5	60	0.987	0.994	0.994	0.995	1.143	0.354	0.319	0.369	0.377	0.007
26-SEP-94 13:02:03	500	PROCESS	11.25	1.40	34.9	3	1.015	179	195	105	2.93	4.54	42	14	117	95	0.45	14.0	11.4	60	0.996	0.985	0.987	0.989	1.145	0.352	0.313	0.369	0.364	0.027
26-SEP-94 13:03:03	500	PROCESS	11.22	1.40	34.9	3	1.023	178	196	105	2.91	4.70	42	15	115	96	0.42	15.1	11.4	60	0.990	0.989	0.985	0.991	1.140	0.353	0.311	0.360	0.360	0.030
26-SEP-94 13:04:03	500	PROCESS	11.25	1.40	34.9	3	1.019	179	195	105	2.92	4.30	42	16	116	96	0.45	13.9	13.0	60	0.995	0.996	0.983	0.989	1.140	0.359	0.316	0.369	0.360	0.002
26-SEP-94 13:05:02	500	PROCESS	11.29	1.41	34.9	3	1.014	176	195	102	2.91	4.43	43	17	117	96	0.44	12.6	15.2	60	0.993	0.994	0.994	0.987	1.142	0.307	0.320	0.365	0.370	0.053
26-SEP-94 13:06:02	500	PROCESS	11.24	1.40	34.9	3	1.013	176	196	102	2.93	5.06	42	17	118	96	0.44	11.4	15.2	60	0.994	0.990	0.987	0.990	1.144	0.359	0.320	0.372	0.364	0.032
26-SEP-94 13:07:03	500	PROCESS	11.20	1.41	35.0	3	1.010	175	196	102	2.88	5.20	42	17	118	96	0.45	12.6	13.9	60	0.998	0.989	0.989	0.998	1.145	0.357	0.311	0.371	0.371	0.040
26-SEP-94 13:08:03	500	PROCESS	11.23	1.40	35.0	3	1.000	175	196	102	2.91	4.71	42	17	119	96	0.44	13.9	11.4	60	0.991	0.993	0.989	0.989	1.143	0.354	0.322	0.369	0.363	0.030
26-SEP-94 13:09:02	500	PROCESS	11.21	1.40	35.0	3	1.006	176	196	102	2.88	4.80	42	17	119	95	0.41	15.1	11.3	60	0.995	0.996	0.996	0.987	1.140	0.354	0.326	0.380	0.366	0.032
26-SEP-94 13:10:02	500	PROCESS	11.29	1.41	35.0	3	1.010	176	196	103	3.00	5.10	42	17	116	96	0.41	13.9	12.6	60	0.991	0.993	0.990	0.996	1.150	0.350	0.320	0.375	0.375	0.023
26-SEP-94 13:11:03	500	PROCESS	11.25	1.40	35.0	3	1.024	177	196	104	2.93	5.41	42	16	114	96	0.43	12.6	13.9	60	0.994	0.999	0.995	0.988	1.144	0.357	0.319	0.366	0.341	0.040
26-SEP-94 13:12:02	500	PROCESS	11.25	1.40	35.1	4	1.015	176	196	103	2.92	5.20	42	16	117	96	0.46	11.3	15.2	60	0.994	0.999	0.990	0.995	1.143	0.361	0.324	0.369	0.353	0.030
26-SEP-94 13:13:02	500	PROCESS	11.23	1.40	35.1	4	1.013	175	196	101	2.96	5.10	42	18	117	96	0.47	12.5	15.1	60	0.993	0.994	0.985	0.987	1.130	0.361	0.320	0.360	0.352	0.034
26-SEP-94 13:14:02	500	PROCESS	11.27	1.40	35.1	3	1.009	175	196	102	2.97	5.06	42	18	118	96	0.43	13.0	15.0	60	0.984	0.993	0.980	0.985	1.144	0.370	0.320	0.369	0.360	0.043
26-SEP-94 13:15:02	500	PROCESS	11.24	1.40	35.1	3	1.007	175	196	101	2.94	4.92	42	18	119	96	0.46	15.0	15.2	60	0.988	0.985	0.983	0.996	1.140	0.360	0.319	0.364	0.350	0.042
26-SEP-94 13:16:02	500	PROCESS	11.23	1.40	35.1	2	1.008	174	196	102	2.90	4.01	42	17	119	96	0.46	16.3	15.1	60	0.993	0.999	0.994	0.994	1.147	0.370	0.325	0.359	0.371	0.027
26-SEP-94 13:17:02	500	PROCESS	11.27	1.41	35.1	2	1.017	177	196	103	2.96	4.90	42	15	115	96	0.49	17.4	12.6	60	0.996	1.002	0.989	0.990	1.137	0.361	0.315	0.372	0.366	0.022
26-SEP-94 13:18:02	500	PROCESS	11.23	1.40	35.2	2	1.016	170	196	104	2.99	4.56	42	15	116	96	0.49	19.0	11.3	60	0.991	0.987	0.987	0.996	1.145	0.360	0.322	0.358	0.354	0.028
26-SEP-94 13:19:02	500	PROCESS	11.27	1.40	35.2	2	1.013	170	196	105	2.93	5.40	42	14	117	96	0.42	17.4	12.6	60	0.994	0.991	0.991	0.999	1.150	0.375	0.313	0.372	0.370	0.050
26-SEP-94 13:20:02	500	PROCESS	11.27	1.40	35.2	2	1.009	170	196	104	2.96	5.06	42	15	118	96	0.47	15.1	13.9	60	0.991	0.995	0.991	0.993	1.140	0.369	0.315	0.365	0.359	0.022
26-SEP-94 13:21:02	500	PROCESS	11.25	1.40	35.2	2	1.007	170	196	104	2.90	4.93	42	15	110	96	0.47	13.9	15.1	60	0.991	0.990	0.995	0.990	1.139	0.374	0.317	0.361	0.370	0.010
26-SEP-94 13:22:02	500	PROCESS	11.22	1.40	35.2	2	1.006	170	196	104	2.99	4.60	42	15	119	97	0.43	12.6	16.4	60	0.985	0.999	0.985	0.989	1.140	0.360	0.314	0.357	0.363	0.035
26-SEP-94 13:23:02	500	PROCESS	11.24	1.40	35.2	2	1.005	170	196	104	3.04	4.29	42	15	119	96	0.45	11.0	17.7	60	0.989	0.980	0.990	0.989	1.147	0.360	0.310	0.366	0.369	0.026
26-SEP-94 13:24:02	500	PROCESS	11.33	1.41	35.2	2	1.019	170	195	104	3.05	5.36	42	15	113	96	0.40	12.4	16.4	60	0.995	0.993	0.991	0.993	1.143	0.360	0.315	0.361	0.371	0.053
26-SEP-94 13:25:02	500	PROCESS	11.20	1.41	35.3	2	1.019	170	196	104	2.99	5.34	42	15	115	96	0.45	13.9	14.0	60	0.995	0.985	0.993	0.990	1.139	0.370	0.322	0.361	0.365	0.040
26-SEP-94 13:26:02	500	PROCESS	11.23	1.40	35.3	2	1.013	170	196	104	2.94	5.17	42	15	117	96	0.45	15.1	12.6	60	0.993	0.999	0.990	0.991	1.140	0.364	0.326	0.374	0.361	0.029
26-SEP-94 13:27:02	500	PROCESS	11.27	1.40	35.3	2	1.011	170	196	104	2.99	4.72	42	15	110	97	0.44	16.4	11.4	60	0.994	0.990	0.987	0.983	1.140	0.364	0.321	0.360	0.359	0.022
26-SEP-94 13:28:02	500	PROCESS	11.20	1.41	35.3	2	1.000	170	196	104	2.95	5.46	42	14	118	96	0.45	15.1	12.6	60	0.995	0.994	0.980	0.990	1.140	0.360	0.313	0.372	0.365	0.040
26-SEP-94 13:29:02	500	PROCESS	11.23	1.40	35.3	2	1.007	170	196	105	2.99	5.10	42	15	119	97	0.41	13.9	13.0	60	0.993	0.991	0.990	0.935	1.137	0.359	0.322	0.377	0.360	0.039
26-SEP-94 13:30:02	500	PROCESS	11.27	1.41	35.3	2	1.006	170	196	105	2.99	5.02	42	15	119	97	0.41	12.6	15.1	60	0.994	0.989	0.989	0.994	1.143	0.358	0.322	0.380	0.371	0.035
26-SEP-94 13:31:02	500	PROCESS	11.31	1.41	35.4	2	1.010	177	196	104	3.04	5.31	42	15	116	97	0.42	12.2	15.0	60	0.991	0.998	0.700	0.994	1.147	0.359	0.315	0.375	0.365	0.040
26-SEP-94 13:32:02	500	PROCESS	11.24	1.40	35.4	2	1.019	170	196	104	3.01	4.70	42	15	115	97	0.43	12.5	12.5	60	0.991	0.990	0.991	0.993	1.139	0.364	0.314	0.372	0.366	0.060
26-SEP-94 13:33:02	500	PROCESS	11.25	1.40	35.4	3	1.011	170	196	105	3.01	4.62	42	15	117	97	0.44	14.4	11.3	60	0.983	0.990	0.970	0.985	1.137	0.363	0.321	0.361	0.363	0.030
26-SEP-94 13:34:02	500	PROCESS	11.24	1.40	35.4	3	1.009	170	196	105	3.02	5.20	42	14	112	97	0.44	12.8	11.4	60	0.998	0.980	0.780	0.991	1.144	0.315	0.321	0.374	0.364	0.030
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

26-SEP-94 13:37:02 500 PROCESS	11.22	1.40	35.4	3	1.006	177	196	103	2.99	5.44	62	16	119	98	0.47	12.6	15.2	60	0.976	0.996	0.983	0.987	1.142	0.369	0.315	0.371	0.360	0.033
26-SEP-94 13:38:02 500 PROCESS	11.24	1.40	35.5	3	1.015	177	196	103	3.00	4.73	62	16	115	97	0.44	14.0	13.8	60	0.988	0.996	0.987	0.994	1.140	0.365	0.310	0.370	0.366	0.022
26-SEP-94 13:39:02 500 PROCESS	11.30	1.41	35.5	3	1.017	177	196	104	3.05	4.37	62	15	115	97	0.47	15.3	11.5	60	0.988	0.990	0.991	0.991	1.142	0.361	0.315	0.369	0.374	0.044
26-SEP-94 13:40:02 500 PROCESS	11.33	1.41	35.5	3	1.011	178	196	105	3.03	5.39	62	15	117	97	0.44	15.1	11.3	60	0.989	0.990	0.983	0.984	1.148	0.365	0.315	0.377	0.366	0.028
26-SEP-94 13:41:02 500 PROCESS	11.31	1.41	35.5	3	1.011	179	196	105	2.97	5.34	62	14	118	98	0.42	12.6	12.6	60	0.989	0.993	0.994	0.999	1.147	0.368	0.315	0.382	0.375	0.034
26-SEP-94 13:42:02 500 PROCESS	11.20	1.40	35.5	3	1.007	179	196	105	3.04	4.88	61	14	118	97	0.45	11.3	13.9	60	0.995	0.988	0.989	0.985	1.143	0.365	0.314	0.378	0.365	0.045
26-SEP-94 13:43:02 500 PROCESS	11.25	1.40	35.5	3	1.004	178	196	105	2.98	5.73	61	14	119	97	0.41	12.6	12.7	60	0.994	0.993	0.990	0.994	1.145	0.368	0.314	0.374	0.368	0.045
26-SEP-94 13:44:02 500 PROCESS	11.27	1.41	35.6	3	1.001	179	196	105	3.04	5.39	61	14	119	98	0.42	13.9	11.5	60	0.991	0.993	0.990	0.988	1.134	0.374	0.314	0.379	0.366	0.026
26-SEP-94 13:45:01 500 PROCESS	11.25	1.40	35.6	3	1.016	178	196	105	3.07	6.63	61	15	116	98	0.44	16.3	11.4	60	0.990	0.990	0.991	0.979	1.133	0.357	0.314	0.374	0.374	0.038
26-SEP-94 13:46:02 500 PROCESS	11.30	1.41	35.6	3	1.010	179	196	105	3.05	6.18	61	14	115	98	0.43	15.1	12.6	60	0.990	0.989	0.985	0.985	1.143	0.365	0.324	0.381	0.364	0.039
26-SEP-94 13:47:02 500 PROCESS	11.21	1.40	35.6	3	1.010	178	196	105	3.05	6.39	61	15	117	97	0.42	12.6	13.8	60	0.994	0.991	0.987	0.988	1.138	0.364	0.321	0.374	0.366	0.042
26-SEP-94 13:48:02 500 PROCESS	11.23	1.40	35.6	3	1.009	177	196	104	3.10	6.06	61	15	118	98	0.43	11.4	15.1	60	0.987	0.989	0.988	0.985	1.136	0.365	0.326	0.371	0.359	0.054
26-SEP-94 13:49:02 500 PROCESS	11.28	1.41	35.6	3	1.004	177	196	104	3.02	5.44	61	16	118	98	0.42	12.6	13.9	60	0.982	0.990	0.982	0.991	1.139	0.369	0.320	0.388	0.358	0.028
26-SEP-94 13:50:02 500 PROCESS	11.26	1.40	35.6	3	1.005	177	196	104	3.03	5.42	61	16	119	98	0.44	13.0	12.6	60	0.988	0.987	0.988	0.984	1.137	0.368	0.325	0.379	0.364	0.034
26-SEP-94 13:51:02 500 PROCESS	11.27	1.41	35.7	3	1.005	177	196	104	3.07	5.28	61	15	119	97	0.45	15.0	11.4	60	0.990	0.994	0.987	0.988	1.142	0.363	0.320	0.382	0.372	0.033
26-SEP-94 13:52:01 500 PROCESS	11.24	1.40	35.7	3	1.015	177	196	103	3.10	5.95	61	16	115	98	0.47	15.0	12.7	60	0.988	0.993	0.978	0.985	1.142	0.363	0.322	0.368	0.369	0.046
26-SEP-94 13:53:02 500 PROCESS	11.29	1.41	35.7	3	1.012	178	196	104	3.10	5.88	61	15	116	97	0.42	13.8	14.0	60	0.984	0.984	0.988	0.988	1.139	0.361	0.319	0.375	0.359	0.026
26-SEP-94 13:54:02 500 PROCESS	11.23	1.40	35.7	3	1.008	179	196	103	3.04	5.79	61	14	117	98	0.46	12.5	15.0	60	0.991	0.993	0.995	0.993	1.142	0.374	0.327	0.374	0.363	0.040
26-SEP-94 13:55:02 500 PROCESS	11.23	1.40	35.7	3	1.006	179	196	106	3.06	6.23	61	14	118	98	0.42	11.4	15.2	60	0.996	0.996	0.988	0.989	1.130	0.371	0.325	0.372	0.358	0.029
26-SEP-94 13:56:02 500 PROCESS	11.25	1.40	35.7	3	1.005	178	196	105	3.07	6.08	61	15	119	98	0.45	12.5	14.0	60	0.989	0.988	0.985	0.989	1.138	0.368	0.325	0.377	0.359	0.029
26-SEP-94 13:57:01 500 PROCESS	11.25	1.40	35.8	3	1.002	177	196	104	3.13	5.95	61	16	119	98	0.46	13.9	12.4	60	0.984	0.987	0.983	0.983	1.143	0.365	0.316	0.379	0.361	0.049
26-SEP-94 13:58:01 500 PROCESS	11.24	1.40	35.8	3	1.005	177	196	104	3.04	6.40	61	15	119	98	0.40	13.9	11.4	60	0.990	0.991	0.984	0.994	1.140	0.370	0.322	0.380	0.359	0.027
26-SEP-94 13:59:01 500 PROCESS	11.29	1.41	35.8	3	1.010	178	196	105	3.10	5.59	61	15	115	98	0.44	12.6	12.6	60	0.994	0.993	0.995	0.985	1.144	0.364	0.319	0.379	0.365	0.031
26-SEP-94 14:00:01 500 PROCESS	11.25	1.40	35.8	3	1.016	178	196	103	3.10	5.21	61	15	115	98	0.43	11.3	13.9	60	0.994	0.983	0.984	0.989	1.143	0.370	0.320	0.379	0.370	0.026
26-SEP-94 14:01:01 500 PROCESS	11.25	1.40	35.8	3	1.008	178	196	105	3.08	5.92	61	15	117	98	0.40	12.6	15.2	60	0.993	0.984	0.989	0.984	1.145	0.368	0.315	0.380	0.355	0.006
26-SEP-94 14:02:01 500 PROCESS	11.27	1.40	35.8	4	1.009	177	195	103	3.12	5.53	61	16	118	98	0.49	13.0	15.2	60	0.984	0.991	0.985	0.989	1.149	0.361	0.317	0.374	0.352	0.015
26-SEP-94 14:03:01 500 PROCESS	11.20	1.41	35.8	3	1.001	176	196	103	3.02	5.09	61	17	119	98	0.43	15.1	15.2	60	0.989	0.985	0.991	0.987	1.140	0.364	0.315	0.380	0.365	0.040
26-SEP-94 14:04:01 500 PROCESS	11.26	1.40	35.9	3	1.790	176	196	103	3.00	5.11	61	16	119	98	0.46	15.1	15.2	60	0.984	0.983	0.983	0.984	1.138	0.363	0.322	0.381	0.357	0.021
26-SEP-94 14:05:01 500 PROCESS	11.19	1.39	35.9	3	1.014	176	196	102	3.16	5.54	61	17	116	98	0.44	17.4	15.1	60	0.984	0.983	0.979	0.991	1.144	0.363	0.322	0.375	0.357	0.031
26-SEP-94 14:06:01 500 PROCESS	11.26	1.40	35.9	2	1.019	178	196	104	3.07	5.56	61	15	114	98	0.44	10.9	13.9	60	0.988	0.987	0.983	0.993	1.137	0.364	0.321	0.375	0.370	0.042
26-SEP-94 14:07:01 500 PROCESS	11.27	1.40	35.9	2	1.018	178	196	104	3.08	5.82	61	15	117	98	0.45	20.1	11.3	60	0.985	0.990	0.979	0.988	1.145	0.368	0.330	0.386	0.359	0.037
26-SEP-94 14:08:01 500 PROCESS	11.27	1.40	35.9	2	1.008	178	196	104	3.09	5.92	61	15	118	98	0.44	18.9	12.6	60	0.987	0.984	0.983	0.979	1.134	0.370	0.330	0.383	0.366	0.039
26-SEP-94 14:09:01 500 PROCESS	11.25	1.40	35.9	2	1.005	177	195	103	3.15	5.59	61	16	118	98	0.45	17.6	13.9	60	0.988	0.987	0.995	0.988	1.136	0.371	0.326	0.380	0.357	0.035
26-SEP-94 14:10:01 500 PROCESS	11.16	1.39	35.9	2	1.003	177	196	103	3.13	5.59	61	16	119	98	0.46	15.1	15.1	60	0.989	0.987	0.995	0.987	1.130	0.372	0.321	0.380	0.357	0.045
26-SEP-94 14:11:01 500 PROCESS	11.30	1.41	36.0	2	1.002	177	196	104	3.11	4.98	61	15	119	98	0.43	13.9	16.5	60	0.984	0.990	0.984	0.985	1.137	0.365	0.326	0.374	0.355	0.020
26-SEP-94 14:12:01 500 PROCESS	11.27	1.40	36.0	2	1.010	178	196	104	3.10	5.32	60	15	116	98	0.47	12.6	17.7	60	0.988	0.993	0.988	0.983	1.140	0.369	0.322	0.377	0.360	0.020
26-SEP-94 14:13:01 500 PROCESS	11.26	1.40	36.0	2	1.010	178	196	105	3.12	6.27	61	15	114	98	0.40	11.4	17.7	60	0.988	0.983	0.982	0.988	1.142	0.369	0.327	0.380	0.360	0.032
26-SEP-94 14:14:01 500 PROCESS	11.23	1.40	36.0	2	1.010	178	196	105	3.11	5.61	61	15	117	98	0.42	12.5	14.4	60	0.990	0.985	0.982	0.984	1.143	0.369	0.317	0.376	0.361	0.038
26-SEP-94 14:15:01 500 PROCESS	11.23	1.40	36.0	2	1.006	177	196	103	3.13	5.60	61	16	117	99	0.45	13.9	15.1	60	0.982	0.984	0.988	0.987	1.144	0.366	0.321	0.386	0.365	0.043
26-SEP-94 14:16:01 500 PROCESS	11.27	1.40	36.0	2	1.009	177	196	103	3.13	5.49	61	14	118	98	0.44	15.1	12.7	60	0.991	0.989	0.984	0.989	1.132	0.366	0.322	0.375	0.359	0.011
26-SEP-94 14:17:01 500 PROCESS	11.20	1.41	36.1	2	1.001	177	196	103	3.10	5.30	61	16	119	98	0.47	17.4	11.4	60	0.983	0.987	0.985	0.987	1.140	0.369	0.320	0.382	0.355	0.043
26-SEP-94 14:18:01 500 PROCESS	11.30	1.41	36.1	2	1.001	177	196	104	3.12	6.30	61	16	119	99	0.43	16.4	11.4	60	0.987	0.988	0.989	0.987	1.144	0.380	0.317	0.375	0.361	0.051
26-SEP-94 14:19:01 500 PROCESS	11.27	1.41	36.1	2	1.005	177	196	104	3.15	6.33	61	15	119	98	0.44	15.1	12.5	60	0.987	0.990	0.984	0.982	1.140	0.382	0.317	0.379	0.364	0.034
26-SEP-94 14:20:01 500 PROCESS	11.28	1.41	36.1	2	1.015	177	196	104	3.13	6.35	61	16	115	98	0.42	12.8	15.2	60	0.970	0.984	0.983	0.994	1.143	0.380	0.320	0.376	0.359	0.011
26-SEP-94 14:21:01 500 PROCESS	11.29	1.41	36.1	2	1.013	178	196	104	3.13	6.07	61	16	115	98	0.44	12.5	15.2	60	0.988	0.990	0.987	0.990	1.145	0.369	0.317	0.368	0.359	0.027
26-SEP-94 14:22:01 500 PROCESS	11.28	1.41	36.1	2	1.009	178	196	105	3.10	6.18	61	15	117	98	0.43	12.5	15.1	60	0.987	0.993	0.991	0.979	1.147	0.383	0.331	0.377	0.366	0.037
26-SEP-94 14:23:01 500 PROCESS	11.30	1.41	36.2	2	1.005	178	196	105	3.15	5.95	61	15	118	98	0.44	12.6	13.9	60	0.970	0.989	0.984	0.979	1.143	0.374	0.322	0.348	0.364	0.034
26-SEP-94 14:24:01 500 PROCESS	11.28	1.41	36.2	2	1.003	179	196	105	3.12	5.03	61	14	119	98	0.43	15.0	12.6	60	0.985	0.987	0.987	0.988	1.131	0.377	0.332	0.382	0.358	0.045
26-SEP-94 14:25:01 500 PROCESS	11.28	1.41	36.2	2	1.000	178	196	105	3.07	5.29	61	15	119	98	0.46	15.1	11.3	60	0.985	0.984	0.976	0.977	1.136	0.381	0.326	0.374	0.355	0.048
26-SEP-94 14:26:01 500 PROCESS	11.30	1.41	36.2	2	1.004	178	196	104	3.11	5.92	61	15	118	98	0.47	13.7	12.5	60	0.989	0.991	0.984	0.977	1.134	0.381	0.317	0.371	0.364	0.027
26-SEP-94 14:27:01 500 PROCESS	11.29	1.41	36.2	2	1.015	177	196	104	3.13	5.92	61	16	115	99	0.43	12.5	13.9	60	0.988	0.989	0.976	0.983	1.137	0.392	0.325	0.372	0.363	0.045
26-SEP-94 14:28:01 500 PROCESS	11.27	1.41	36.2	2	1.012	177	196	104	3.15	5.52	61	15	115	99	0.44	10.3	15.1	60	0.984	0.985	0.987	0.978	1.137	0.384	0.321	0.379	0.361	0.040
26-SEP-94 14:29:01 500 PROCESS	11.26	1.40	36.2	2	1.006	178	196	104	3.12	5.72	61	15	117	99	0.43	12.6	13.9	60	0.984	0.989	0.985	0.982	1.139	0.382	0.325	0.376	0.368	0.022
26-SEP-94 14:30:01 500 PROCESS	11.23	1.40	36.3	2	1.002	178	196	105	3.15	5.65	61	14	118	99	0.47	13.7	12.7	60	0.983	0.993	0.984	0.987	1.144	0.386	0.322	0.374	0.364	0.032
26-SEP-94 14:31:01 500 PROCESS	11.24	1.40	36.3	2	1.002	178	196	105	3.10	5.47	61	14	118	98	0.46	15.0	10.0	60	0.984	0.988	0.987	0.989	1.139	0.389	0.320	0.372	0.368	0.042
26-SEP-94 14:32:00 500 PROCESS	11.31	1.41	36.3	2	1.000	177	196	103	3.13	5.48	61	16	119	99	0.47	13.0	12.6	60	0.985	0.988	0.985	0.985	1.142	0.385	0.319	0.372	0.353	0.040
26-SEP-94 14:33:01 500 PROCESS	11.19	1.39	36.3	2	1.011	177	196	103	3.10	5.71	61	17	117	99	0.41	15.0	13.9	60	0.983	0.994	0.984	0.987	1.140	0.376	0.324	0.343	0.361	0.054
26-SEP-94 14:34:01 500 PROCESS	11.23	1.40	36.3	2	1.017	177	196	104	3.13	5.46	61	16	115	99	0.40	15.0	15.2	60	0.988	0.983	0.979	0.985	1.142	0.389	0.327	0.375	0.354	0.021
26-SEP-94 14:35:01 500 PROCESS	11.25	1.40	36.3	2	1.006	178	196	104	3.13	4.99	61	15	116	99	0.46	12.6	16.4	60	0.984	0.993	0.989	0.991	1.130	0.386	0.316	0.381	0.366	0.074
26-SEP-94 14:36:01 500 PROCESS	11.20	1.41	36.4	2	1.005	178	195	104	3.13	5.06	61	15	117	98	0.45	12.6	15.2	60	0.983	0.989	0.990	0.994	1.142	0.381	0.316	0.361	0.360	0.057
26-SEP-94 14:36:11 500 PROCESS	11.27	1.40	36.4	2	1.005	178	196	104	3.16	5.67	61	15	118	99	0.45	12.6	15.1	60	0.988	0.990	0.995	0.987	1.147	0.374	0.326	0.379	0.360	0.058
26-SEP-94 14:41:11 500 PROCESS	11.25	1.40	36.4	2	1.016	178	196	104	3.17	5.73	62	15	114	98	0.46	12.6	13.9	60	0.982	0.989	0.988	0.993	1.138	0.372	0.315	0.386	0.357	0.027
26-SEP-94 14:46:11 500 PROCESS	11.20	1.41	36.5	2	1.000	178	196	104	3.12	6.00	62	15	119	99	0.45	15.0	12.6	60	0.983	0.990	0.984	0.985	1.139	0.383	0.326	0.369	0.358	0.018
26-SEP-94 14:51:11 500 PROCESS	11.21	1.40	36.4	3	1.000	177	196	105	3.16	5.80	62	15	115	100	0.43	15.0	11.4	60	0.982	0.979	0.983	0.980	1.134	0.377	0.376	0.376	0.355	0.015

26-SEP-94 15:01:10 500 PURGE	0.00	0.00	36.6	7	1.371	15	10	14	0.00	0.00	2	3	107	99	0.00	15.1	15.2	-0	1.177	1.175	1.175	1.172	1.132	0.035	0.032	0.034	0.071	0.031
26-SEP-94 15:06:10 300 OFF	0.00	0.00	36.6	7	0.000	16	17	16	0.24	0.00	4	2	106	99	0.00	13.9	15.2	-0	1.032	1.021	1.021	1.022	0.998	0.003	0.004	0.005	0.034	0.015
26-SEP-94 15:11:10 500 PURGE	0.00	0.00	36.6	6	1.276	15	17	20	3.05	0.00	5	3	103	100	0.30	12.6	15.1	-0	1.176	1.179	1.182	1.170	1.145	0.023	0.029	0.026	0.061	0.024
26-SEP-94 15:16:10 500 PURGE	0.00	0.00	36.6	5	1.167	15	17	25	2.91	0.00	6	3	103	99	0.39	12.6	15.1	-0	1.195	1.199	1.189	1.189	1.147	0.017	0.018	0.020	0.055	0.032
26-SEP-94 15:21:10 500 PURGE	0.00	0.00	36.6	3	0.990	15	20	25	2.76	0.00	17	14	102	98	0.38	12.6	15.2	-0	1.190	1.194	1.182	1.182	1.137	0.015	0.010	0.013	0.045	0.040

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DATE: 26-SEP-94          LFSPE OXYGEN GENERATION        TIME: 15:22:46
MODE: ON                 STATE: PURGE                 STATUS: NORMAL

OXYGEN PRODUCTION RATE:  0.00 LB/DAY    HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME:     36.6 HOURS            LAST 606 LEVEL:  3
     V003  FILL2/DRAIN1     LEV606-1 OFF             P706-1   14  PSIA
     V005-1 VENT            LEV606-2 OFF             P706-2   47  PSIA
     V005-2 VENT            LEV606-3 OFF             P706-3   25  PSIA
     V051-1 CLOSED          LEV606-4 OFF             DP709   2.71 PSID
     V051-2 OPEN            LEV606-5 OFF             DP708   0.00 PSID
     V053   CLOSED          LEV606-6 OFF             DP749-1  36  PSID
     V081-1 CLOSED          LEV606-7 OFF             DP749-2  32  PSID
     V081-2 CLOSED          PU0705   OFF             T762-1  101  F
     V081-3 CLOSED                                   T762-2  101  F
     V081-4 CLOSED          CALC745  0.35 GPH        T736-1   99  F
     FAN422 OFF             LEV605-1 12.5 CU IN      T736-2  101  F
     PUP463 ON              LEV605-2 15.1 CU IN      P713      13 PSIS
     PUP464 OFF

ANOMALY:
ADVICE:

(F1) PAGE            (F4) CONFIG CNTRL   (F7) ACKNOWLEDGE    (F10) MODIFY OPER
(F2) SUBSYSTEM PARA  (F5) MANUAL OPER    (F8) DATA LOGGING
(F3) MODE SELECTION  (F6) VIEW OPER      (F9) EXIT                PAGE 1  OF 2

DATE: 26-SEP-94          LFSPE OXYGEN GENERATION        TIME: 15:23:15
MODE: ON                 STATE: PROCESS-VENT          STATUS: NORMAL

OXYGEN PRODUCTION RATE:  1.32 LB/DAY    HYDROGEN PRODUCTION RATE: 0.16 LB/DAY
OPERATING TIME:     36.6 HOURS            LAST 606 LEVEL:  4
     V003  FILL1/DRAIN2     LEV606-1 OFF             P706-1   14  PSIA
     V005-1 VENT            LEV606-2 OFF             P706-2   52  PSIA
     V005-2 VENT            LEV606-3 OFF             P706-3   22  PSIA
     V051-1 CLOSED          LEV606-4 ON              DP709   2.11 PSID
     V051-2 OPEN            LEV606-5 OFF             DP708   0.72 PSID
     V053   CLOSED          LEV606-6 OFF             DP749-1  41  PSID
     V081-1 CLOSED          LEV606-7 OFF             DP749-2  37  PSID
     V081-2 CLOSED          PU0705   ON              T762-1  101  F
     V081-3 CLOSED                                   T762-2  101  F
     V081-4 CLOSED          CALC745  0.24 GPH        T736-1   98  F
     FAN422 OFF             LEV605-1  7.6 CU IN      T736-2  101  F
     PUP463 ON              LEV605-2 15.1 CU IN      P713       9 PSIS
     PUP464 OFF

ANOMALY:
ADVICE:

(F1) PAGE            (F4) CONFIG CNTRL   (F7) ACKNOWLEDGE    (F10) MODIFY OPER
(F2) SUBSYSTEM PARA  (F5) MANUAL OPER    (F8) DATA LOGGING
(F3) MODE SELECTION  (F6) VIEW OPER      (F9) EXIT                PAGE 1  OF 2
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26-SEP-94 15:24:40 500 PROCESS-VENT	7.49	0.93	36.6	4	1.710	31	67	37	2.13	1.30	47	36	101	98	0.41	7.5	15.1	41	1.167	1.160	1.172	1.170	1.134	0.096	0.044	0.043	0.056	0.040
26-SEP-94 15:25:40 500 PROCESS-VENT	11.20	1.40	36.6	4	1.022	50	70	34	2.22	2.06	55	27	104	98	0.41	7.5	15.1	60	1.150	1.166	1.161	1.168	1.144	0.125	0.029	0.030	0.070	0.062
26-SEP-94 15:26:40 500 PROCESS-VENT	11.30	1.42	36.6	3	1.041	60	89	73	2.41	1.07	59	19	105	90	0.43	7.6	15.2	60	1.172	1.167	1.175	1.171	1.139	0.039	0.051	0.039	0.070	0.039
26-SEP-94 15:26:56 231 FAIL	11.46	1.43	36.6	3	1.045	69	90	75	2.39	1.06	60	20	106	95	0.39	7.5	15.2	60	1.170	1.173	1.174	1.179	1.131	0.056	0.048	0.049	0.077	0.049
[illegible]																												

26-SEP-94 15:29:44 500 OFF	0.00	0.00	36.6	5	0.000	14	19	14	0.34	0.00	2	5	101	98	0.50	15.1	13.9	-0	0.790	0.006	3.951	0.947	0.624	0.046	0.000	0.001	0.024	0.021

LFSPE OXYGEN GENERATION

DATE TIME ANOM STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-606	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP708 PSID	DP749-1 PSID	DP749-2 PSID	T762-1 F	T736-1 F	CALC745 GPM	LEV605-1 CU IN	LEV605-2 CU IN	I766 AMPS	H2V760-1 V	H2V760-2 V	H2V760-3 V	H2V760-4 V	H2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
26-SEP-94 15:48:12 500 PURGE	0.00	0.00	36.6	4	1.191	15	21	25	2.72	0.00	7	6	97	97	0.42	13.9	15.1	-0	1.183	1.184	1.187	1.179	1.134	0.017	0.015	0.016	0.046	0.030
26-SEP-94 15:49:12 500 PURGE	0.00	0.00	36.6	3	1.170	14	21	25	2.60	0.00	7	7	96	98	0.41	13.9	15.1	-0	1.186	1.192	1.188	1.172	1.136	0.017	0.016	0.016	0.049	0.046
26-SEP-94 15:50:12 500 PURGE	0.00	0.00	36.6	3	1.192	15	32	25	2.74	0.00	19	10	96	97	0.40	14.0	15.1	-0	1.192	1.192	1.179	1.182	1.137	0.015	0.017	0.015	0.053	0.079

DATE: 26-SEP-94 LFSPE OXYGEN GENERATION TIME: 15:50:59
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 36.6 HOURS LAST 606 LEVEL: 3

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 15 PSIA
V005-1 VENT	LEV606-2 OFF	P706-2 41 PSIA
V005-2 VENT	LEV606-3 OFF	P706-3 25 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 2.70 PSID
V051-2 OPEN	LEV606-5 OFF	DP708 0.00 PSID
V033 CLOSED	LEV606-6 OFF	DP749-1 20 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 26 PSID
V001-2 CLOSED	PUR705 OFF	T762-1 96 F
V001-3 CLOSED		T762-2 96 F
V001-4 CLOSED	CALC745 0.41 GPM	T736-1 97 F
FAN422 OFF	LEV605-1 13.9 CU IN	T736-2 99 F
PMP463 ON	LEV605-2 15.2 CU IN	P713 13 PSIS
PMP464 OFF		

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 1 OF 2

26-SEP-94 15:51:12 500 PURGE	0.00	0.00	36.6	3	1.114	15	44	25	2.75	0.00	31	29	96	97	0.41	13.9	15.2	-0	1.186	1.187	1.189	1.172	1.142	0.020	0.015	0.017	0.040	0.045
26-SEP-94 15:52:12 500 PROCESS-VENT	1.96	0.24	36.6	3	1.596	16	54	23	2.31	1.12	36	38	96	97	0.32	13.9	15.1	13	1.189	1.126	1.137	1.166	1.022	0.305	0.054	0.016	0.102	0.640
26-SEP-94 15:53:12 500 PROCESS-VENT	4.63	0.02	36.6	3	1.700	26	64	32	2.15	1.06	44	37	97	96	0.39	13.9	15.1	37	1.183	1.170	1.183	1.175	1.043	0.038	0.021	0.039	0.056	0.537
26-SEP-94 15:54:12 500 PROCESS-VENT	10.49	1.31	36.6	3	1.023	45	74	49	2.24	1.95	52	31	99	96	0.38	13.9	15.1	58	1.173	1.170	1.184	1.173	1.145	0.039	0.042	0.028	0.040	0.057
26-SEP-94 15:55:12 500 PROCESS-VENT	11.43	1.42	36.6	2	1.072	65	85	71	2.17	1.72	59	19	101	97	0.37	10.1	15.1	60	1.181	1.182	1.189	1.171	1.132	0.046	0.035	0.039	0.072	0.035
26-SEP-94 15:55:20 231 FAIL	11.37	1.42	36.6	2	1.074	69	88	75	2.19	1.70	60	10	101	96	0.39	9.9	15.2	68	1.176	1.175	1.179	1.172	1.139	0.032	0.040	0.031	0.070	0.026

.FSPE OXYGEN GENERATION

DATE	TIME	AMUM STATE	O2 PROD	H2 PROD	OPTIME	LLEV-606	CELLAVG	P706-1	P706-2	P706-3	DP707	DP708	DP749-1	DP749-2	T762-1	T736-1	CALC745	LEV605-1	LEV605-2	I766	H2V760-1	H2V760-2	H2V760-3	H2V760-4	H2V900	I760-1	I760-2	I760-3	I760-4	I900
			LB/DAY	LB/DAY	HOURS		V	PSIA	PSIA	PSIA	PSID	PSID	PSID	PSID	F	F	GPM	CU IN	CU IN	AMPS	V	V	V	V	V	A	A	A	A	A
27-SEP-94	07:45:21	500 OFF	0.00	0.00	36.6	4	0.000	13	17	13	0.20	0.00	5	3	72	74	0.22	11.5	12.0	-1	0.007	0.007	0.009	0.009	0.005	0.004	0.004	0.005	0.032	0.063
27-SEP-94	07:46:21	500 PURGE	0.00	0.00	36.6	5	0.521	14	17	14	0.10	0.00	3	2	72	74	0.05	11.5	14.0	-1	1.007	0.990	1.312	1.013	1.132	0.309	0.369	0.300	0.332	0.165
27-SEP-94	07:47:21	500 PURGE	0.00	0.00	36.6	5	0.520	15	17	15	0.23	0.00	2	1	72	74	0.00	11.5	15.3	-0	1.130	1.126	1.120	1.131	1.150	0.002	0.161	0.004	0.117	0.053
27-SEP-94	07:48:21	500 PURGE	0.00	0.00	36.6	5	0.521	15	17	16	0.10	0.00	2	1	72	74	0.00	11.5	15.2	-0	1.167	1.150	1.162	1.162	1.159	0.045	0.109	0.030	0.070	0.015
27-SEP-94	07:49:21	500 PURGE	0.00	0.00	36.6	5	0.520	15	17	16	0.21	0.00	2	0	72	74	0.00	11.4	11.5	-0	1.171	1.167	1.176	1.167	1.159	0.033	0.092	0.029	0.050	0.017
27-SEP-94	07:50:21	500 PURGE	0.00	0.00	36.6	5	0.516	16	16	16	0.15	0.00	2	0	72	74	0.00	11.5	12.7	-0	1.173	1.170	1.175	1.165	1.150	0.026	0.003	0.023	0.053	0.045
27-SEP-94	07:51:21	500 PURGE	0.00	0.00	36.6	5	0.515	17	17	17	0.14	0.00	2	0	72	74	0.00	11.4	13.9	-1	1.176	1.171	1.181	1.170	1.160	0.027	0.074	0.010	0.055	0.039
27-SEP-94	07:52:20	500 PURGE	0.00	0.00	36.6	4	0.512	17	16	17	0.15	0.00	2	0	72	73	0.00	11.3	15.2	-0	1.180	1.171	1.179	1.170	1.160	0.024	0.079	0.018	0.055	0.051
27-SEP-94	07:53:21	500 PURGE	0.00	0.00	36.6	4	0.506	16	17	20	2.52	0.00	2	0	73	74	0.34	12.8	14.1	-0	1.176	1.170	1.179	1.172	1.150	0.021	0.070	0.016	0.053	0.042
27-SEP-94	07:54:21	500 PURGE	0.00	0.00	36.6	4	0.497	15	17	27	2.45	0.00	2	0	73	74	0.32	12.7	14.0	-0	1.176	1.172	1.160	1.173	1.160	0.010	0.066	0.013	0.053	0.022
27-SEP-94	07:55:21	500 PURGE	0.00	0.00	36.6	4	0.476	15	17	27	2.50	0.00	2	1	73	73	0.30	12.7	14.0	-0	1.177	1.172	1.102	1.102	1.166	0.015	0.055	0.016	0.051	0.046
27-SEP-94	07:56:21	500 PURGE	0.00	0.00	36.6	6	0.449	15	17	26	2.47	0.00	2	1	73	73	0.30	12.7	14.0	-1	1.173	1.173	1.101	1.179	1.162	0.015	0.057	0.011	0.050	0.026
27-SEP-94	07:56:20	021 FAIL	0.00	0.00	36.6	4	0.444	15	16	25	2.25	0.00	2	1	73	74	0.22	12.7	14.0	-1	1.102	1.172	1.179	1.170	1.160	0.017	0.050	0.012	0.050	0.029
27-SEP-94	07:57:21	500 OFF	0.00	0.00	36.6	4	0.400	14	17	14	0.33	0.00	2	1	73	74	0.00	13.9	14.0	-0	1.017	1.015	1.100	1.075	1.002	0.000	0.015	0.005	0.035	0.010
27-SEP-94	07:58:20	500 PURGE	0.00	0.00	36.6	4	0.401	15	17	15	0.34	0.00	2	1	73	74	0.00	12.7	13.0	-1	1.111	1.100	1.116	1.117	1.145	0.147	0.192	0.074	0.114	0.040
27-SEP-94	07:59:21	500 PURGE	0.00	0.00	36.6	4	0.385	15	17	16	0.22	0.00	2	1	73	74	0.00	12.7	14.0	-1	1.176	1.101	1.103	1.167	1.160	0.028	0.065	0.010	0.054	0.054
27-SEP-94	08:00:21	500 PURGE	0.00	0.00	36.6	4	0.375	15	17	17	0.23	0.00	2	1	73	74	0.00	14.0	14.1	-0	1.170	1.102	1.175	1.175	1.161	0.023	0.050	0.016	0.045	0.035
27-SEP-94	08:01:21	500 PURGE	0.00	0.00	36.6	7	0.367	16	17	20	2.35	0.00	2	0	73	74	0.32	14.0	14.0	-0	1.181	1.175	1.186	1.173	1.160	0.016	0.053	0.015	0.054	0.044
27-SEP-94	08:02:20	500 PURGE	0.00	0.00	36.6	4	0.357	15	17	27	2.35	0.00	2	0	73	74	0.37	14.0	13.9	-1	1.179	1.186	1.181	1.173	1.161	0.012	0.039	0.012	0.054	0.043
27-SEP-94	08:03:20	500 PURGE	0.00	0.00	36.6	4	0.346	15	17	26	2.33	0.00	2	1	73	74	0.34	13.9	14.0	-0	1.170	1.170	1.170	1.173	1.150	0.013	0.037	0.015	0.040	0.054
27-SEP-94	08:04:21	500 PURGE	0.00	0.00	36.6	4	0.334	15	17	26	2.30	0.00	2	1	73	74	0.31	14.0	13.9	-1	1.183	1.177	1.179	1.179	1.161	0.020	0.039	0.013	0.054	0.059
27-SEP-94	08:05:20	500 PURGE	0.00	0.00	36.6	4	0.322	15	17	26	2.37	0.00	2	1	73	74	0.31	13.9	13.9	-1	1.184	1.178	1.184	1.171	1.161	0.011	0.037	0.015	0.053	0.036
27-SEP-94	08:06:20	500 PURGE	0.00	0.00	36.6	4	0.311	15	17	26	2.40	0.00	2	1	73	74	0.30	13.9	14.0	-1	1.186	1.183	1.186	1.173	1.153	0.007	0.034	0.015	0.045	0.071
27-SEP-94	08:07:20	500 PURGE	0.00	0.00	36.6	4	0.300	14	17	25	2.43	0.00	2	1	74	74	0.37	14.0	13.9	-1	1.179	1.183	1.179	1.178	1.153	0.012	0.021	0.013	0.033	0.035
27-SEP-94	08:08:20	500 PURGE	0.00	0.00	36.6	4	0.289	14	17	25	2.44	0.00	2	1	73	74	0.34	14.0	13.9	-1	1.181	1.180	1.187	1.178	1.155	0.017	0.013	0.010	0.051	0.026
27-SEP-94	08:09:21	500 PURGE	0.00	0.00	36.6	4	0.279	15	17	25	2.46	0.00	2	1	74	74	0.32	13.9	13.9	-0	1.179	1.188	1.182	1.183	1.162	0.015	0.016	0.013	0.054	0.034
27-SEP-94	08:10:20	500 PURGE	0.00	0.00	36.6	5	0.266	15	17	25	2.52	0.00	2	1	74	74	0.35	13.9	13.9	-1	1.188	1.184	1.179	1.182	1.164	0.012	0.012	0.012	0.042	0.057
27-SEP-94	08:11:20	500 PURGE	0.00	0.00	36.6	5	0.257	15	17	25	2.55	0.00	2	1	74	75	0.32	14.0	13.0	-1	1.189	1.181	1.184	1.186	1.165	0.009	0.016	0.013	0.030	0.020
27-SEP-94	08:12:20	500 PURGE	0.00	0.00	36.6	4	0.245	15	17	25	2.41	0.00	2	1	74	74	0.35	14.0	13.9	-1	1.182	1.189	1.181	1.183	1.167	0.007	0.013	0.012	0.051	0.028

DATE: 27-SEP-94 LFSPE OXYGEN GENERATION TIME: 08:12:24
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 36.6 HOURS LAST 606 LEVEL: 4

V003 FILL2/DRAIN1	LEV606-1 OFF	P706-1 15 PSIA
V005-1 VENT	LEV606-2 OFF	P706-2 17 PSIA
V005-2 VENT	LEV606-3 OFF	P706-3 25 PSIA
V051-1 CLOSED	LEV606-4 ON	DP707 2.40 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 0.00 PSID
V053 OPEN	LEV606-6 OFF	DP749-1 2 PSID
V001-1 CLOSED	LEV606-7 OFF	DP749-2 1 PSID
V001-2 CLOSED	PMP705 OFF	T762-1 74 F
V001-3 CLOSED		T762-2 74 F
V001-4 CLOSED	CALC745 0.35 GPM	T736-1 74 F
FAN422 OFF	LEV605-1 14.0 CU IN	T736-2 75 F
PMP463 ON	LEV605-2 14.0 CU IN	P713 12 PSIG
PMP464 OFF		

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 1 OF 2

27-SEP-94	08:13:20	500 PURGE	0.00	0.00	36.6	4	0.235	15	19	23	2.56	0.00	3	3	74	73	0.29	14.0	13.9	-0	1.182	1.183	1.177	1.184	1.159	0.016	0.015	0.016	0.051	0.024
27-SEP-94	08:14:20	500 PURGE	0.00	0.00	36.6	3	0.228	15	20	23	2.40	0.00	5	5	74	74	0.35	13.9	13.9	-1	1.183	1.177	1.182	1.176	1.160	0.009	0.007	0.013	0.046	0.006
27-SEP-94	08:15:20	500 PURGE	0.00	0.00	36.6	3	0.221	15	20	24	2.42	0.00	5	5	74	74	0.34	14.0	13.9	-1	1.180	1.184	1.182	1.172	1.150	0.010	0.017	0.015	0.034	0.020
27-SEP-94	08:16:20	500 PURGE	0.00	0.00	36.6	3	0.211	15	20	24	2.63	0.00	14	13	74	74	0.35	13.9	14.0	-1	1.189	1.102	1.175	1.173	1.150	0.013	0.012	0.013	0.046	0.076
27-SEP-94	08:17:20	500 PURGE	0.00	0.00	36.6	3	0.202	15	37	24	2.55	0.00	22	21	74	75	0.33	14.0	13.9	-3	1.184	1.177	1.170	1.179	1.159	0.013	0.017	0.012	0.033	0.039
27-SEP-94	[illegible]	500 PURGE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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DATE: .-SEP-94          LFSPE OXYGEN GENERATION          TIME: 08:1?:..
MODE: ON                STATE: PROCESS-VENT              STATUS: NORMAL

OXYGEN PRODUCTION RATE:  0.31 LB/DAY    HYDROGEN PRODUCTION RATE: 0.04 LB/DAY
OPERATING TIME:      36.6 HOURS          LAST 606 LEVEL:  3
     V003   FILL1/DRAIN2    LEV606-1 OFF              P706-1   16  PSIA
     V005-1 VENT            LEV606-2 OFF              P706-2   30  PSIA
     V005-2 VENT            LEV606-3 OFF              P706-3   21  PSIA
     V051-1 CLOSED          LEV606-4 ON               DP709   1.09 PSID
     V051-2 OPEN            LEV606-5 OFF              DP708   0.00 PSID
     V053   CLOSED          LEV606-6 OFF              DP749-1  36  PSID
     V001-1 CLOSED          LEV606-7 OFF              DP749-2  35  PSID
     V001-2 CLOSED          PUR705   ON               T762-1   75  F
     V001-3 CLOSED                                    T762-2   74  F
     V001-4 CLOSED          CALC745  0.09 GPM         T736-1   74  F
     FAN422 OFF             LEV605-1  7.5 CU IN       T736-2   75  F
     PMP463 ON              LEV605-2 12.4 CU IN       P713      7  PSIS
     PMP464 OFF

ANOMALY:
ADVICE:

(F1) PAGE             (F4) CONFIG CNTRL   (F7) ACKNOWLEDGE    (F10) MODIFY OPER
(F2) SUBSYSTEM PARA   (F5) MANUAL OPER    (F8) DATA LOGGING
(F3) MODE SELECTION   (F6) VIEW OPER      (F9) EXIT                PAGE 1  OF 2
30      FAIL                  2.43     0.30     36.6     4        1.615   16      54       24       2.16    3.05    35      37      74      73      0.30    7.5     17.7    13
1.158   1.140   1.164   1.149   1.112   0.020   0.178   0.002   0.121   0.248
27-SEP-94 08:19:20 230 FAIL       2.43   0.30   36.6    4   1.615  16   54   24   2.16 3.05 35   37   74   73   0.30  7.5   17.7   13  1.158  1.140  1.164  1.149  1.112 0.020  0.178  0.002  0.121  0.248
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LFSPE OXYGEN GENERATION

DATE	TIME	AMDR	STATE	O2 PROD	H2 PROD	OPTIME	LLEV-606	CELLAVG	P706-1	P706-2	P706-3	DP709	DP708	DP749-1	DP749-2	T762-1	T736-1	CALC745	LEV605-1	LEV605-2	I766	H2V760-1	H2V760-2	H2V749-3	H2V740-4	H2V900	I760-1	I760-2	I760-3	I760-4	I900
				LB/DAY	LB/DAY	HOURS		V	PSIA	PSIA	PSIA	PSID	PSID	PSID	PSID	F	F	GPM	CU IN	CU IN	AMPS	V	V	V	V	V	A	A	A	A	A
27-SEP-94	08:32:47	500	PURGE	0.00	0.00	36.6	6	1.386	15	17	26	2.86	0.00	3	2	75	75	0.20	13.8	13.9	-0	1.190	1.190	1.193	1.184	1.150	0.009	0.015	0.010	0.044	0.049
27-SEP-94	08:33:47	500	PURGE	0.00	0.00	36.6	6	1.379	15	17	27	2.89	0.00	3	2	75	75	0.32	13.9	13.9	-0	1.192	1.196	1.194	1.184	1.143	0.010	0.016	0.016	0.049	0.090
27-SEP-94	08:34:47	500	PURGE	0.00	0.00	36.6	6	1.372	15	17	26	2.90	0.00	3	2	75	75	0.31	13.9	13.9	-0	1.183	1.187	1.195	1.183	1.147	0.013	0.017	0.016	0.053	0.083
27-SEP-94	08:35:47	500	PURGE	0.00	0.00	36.6	6	1.364	15	17	25	2.87	0.00	3	2	75	75	0.32	13.9	13.9	-0	1.188	1.190	1.188	1.187	1.140	0.013	0.015	0.013	0.040	0.079
27-SEP-94	08:36:47	500	PURGE	0.00	0.00	36.6	5	1.352	15	17	25	2.81	0.00	3	2	75	75	0.33	13.9	13.9	-0	1.192	1.194	1.199	1.184	1.148	0.010	0.012	0.018	0.043	0.045
27-SEP-94	08:37:47	500	PURGE	0.00	0.00	36.6	5	1.330	15	17	24	2.75	0.00	4	2	75	75	0.32	14.0	13.9	-0	1.189	1.190	1.193	1.195	1.156	0.013	0.009	0.011	0.043	0.074

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DATE: 27-SEP-94         LFSPE OXYGEN GENERATION          TIME: 08:38:22
MODE: ON                STATE: PURGE                     STATUS: NORMAL

OXYGEN PRODUCTION RATE:  0.00 LB/DAY    HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME:      36.6 HOURS          LAST 606 LEVEL:  4
     V003   FILL2/DRAIN1    LEV606-1 OFF              P706-1   15  PSIA
     V005-1 VENT            LEV606-2 OFF              P706-2   17  PSIA
     V005-2 VENT            LEV606-3 OFF              P706-3   25  PSIA
     V051-1 CLOSED          LEV606-4 ON               DP709   2.82 PSID
     V051-2 CLOSED          LEV606-5 OFF              DP708   0.00 PSID
     V053   OPEN            LEV606-6 OFF              DP749-1   3  PSID
     V001-1 CLOSED        . LEV606-7 OFF              DP749-2   2  PSID
     V001-2 CLOSED          PUR705   OFF              T762-1   75  F
     V001-3 CLOSED                                    T762-2   75  F
     V001-4 CLOSED          CALC745  0.20 GPM         T736-1   74  F
     FAN422 OFF             LEV605-1 13.9 CU IN       T736-2   76  F
     PMP463 ON              LEV605-2 13.9 CU IN       P713     12  PSIS
     PMP464 OFF
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ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT

PAGE 1 OF 2

27-SEP-94 08:38:47 500 PURGE	0.00	0.09	36.4	4	1.324	15	17	25	2.75	0.00	3	2	75	75	0.34	13.9	13.9	-0	1.190	1.109	1.197	1.189	1.140	0.015	0.015	0.011	0.045	0.038
27-SEP-94 08:39:47 500 PURGE	0.00	0.00	36.6	4	1.312	15	20	25	2.72	0.00	6	4	75	75	0.35	13.9	13.9	-0	1.192	1.190	1.188	1.187	1.144	0.009	0.012	0.011	0.045	0.043
27-SEP-94 08:40:47 500 PURGE	0.00	0.00	36.6	4	1.300	15	20	24	2.44	0.00	6	5	76	75	0.34	13.9	13.9	0	1.190	1.109	1.195	1.186	1.131	0.010	0.010	0.015	0.047	0.041
27-SEP-94 08:41:47 500 PURGE	0.00	0.00	36.6	3	1.290	15	23	24	2.44	0.00	9	8	76	75	0.36	14.0	13.9	-0	1.188	1.193	1.194	1.186	1.155	0.016	0.010	0.016	0.050	0.059
27-SEP-94 08:42:47 500 PURGE	0.00	0.00	36.6	3	1.275	15	32	24	2.77	0.00	10	16	76	75	0.34	14.0	13.9	0	1.184	1.195	1.194	1.181	1.140	0.015	0.010	0.011	0.049	0.030
27-SEP-94 08:43:47 500 PURGE	0.00	0.00	36.6	2	1.266	15	40	24	2.72	0.00	27	25	76	75	0.35	14.0	13.8	-0	1.189	1.193	1.192	1.184	1.154	0.016	0.009	0.009	0.050	0.028
27-SEP-94 08:44:47 500 PURGE	0.00	0.00	36.6	2	1.252	15	49	24	2.44	0.00	35	33	76	75	0.33	13.9	14.0	0	1.188	1.194	1.188	1.184	1.153	0.013	0.015	0.012	0.054	0.023
27-SEP-94 08:45:47 500 PROCESS-VENT	0.74	0.09	36.6	4	1.075	18	56	22	1.95	0.12	30	37	76	75	0.29	7.5	16.4	1	1.189	1.197	1.197	1.183	1.154	0.012	0.017	0.020	0.040	0.038
27-SEP-94 08:46:17 230 FAIL	5.02	0.72	36.6	5	0.000	20	58	20	2.25	1.65	33	37	76	75	0.29	7.6	16.4	32	1.193	1.194	1.188	1.192	1.159	0.013	0.021	0.022	0.046	0.025

DATE: 27-SEP-94
MODE: ON

LFSFE OXYGEN GENERATION
STATE: PURGE

TIME: 08:53:33
STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY
HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 0.0 HOURS
LAST 606 LEVEL: 0

V003 FILL/DRAIN	LEV606-1 OFF	P706-1 16 PSIA
V005-1 VENT	LEV606-2 OFF	P706-2 17 PSIA
V005-2 VENT	LEV606-3 OFF	P706-3 17 PSIA
V051-1 CLOSED	LEV606-4 OFF	DP709 0.26 PSID
V051-2 CLOSED	LEV606-5 OFF	DP708 0.00 PSID
V053 OPEN	LEV606-6 OFF	DP749-1 3 PSID
V081-1 CLOSED	LEV606-7 OFF	DP749-2 2 PSID
V081-2 CLOSED	PMF765 OFF	T762-1 25 F
V081-3 OPEN		T762-2 25 F
V081-4 OPEN	CALC745 0.00 GPM	T736-1 25 F
FAN422 OFF	LEV605-1 7.5 CU IN	T736-2 25 F
PMF463 OFF	LEV605-2 15.1 CU IN	F713 0 PSIG
PMF464 OFF		

ANOMALY:
ADVICE:

[F1] PAGE [F4] CONFIG CNTRL [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT

LFSFE OXYGEN GENERATION

PAGE 1 OF 2

DATE TIME ANCH STATE	O2 PROD LB/DAY	H2 PROD LB/DAY	OPTIME HOURS	LLEV-606	CELLAVG V	P706-1 PSIA	P706-2 PSIA	P706-3 PSIA	DP709 PSID	DP708 PSID	DP749-1 PSID	DP749-2 PSID	T762-1 F	T736-1 F	CALC745 GPM	LEV605-1 CU IN	LEV605-2 CU IN	I766 AMPS	H2V760-1 V	H2V760-2 V	H2V760-3 V	H2V760-4 V	H2V900 V	I760-1 A	I760-2 A	I760-3 A	I760-4 A	I900 A
27-SEP-94 09:06:10 500 PURGE	0.00	0.03	0.0	6	1.351	16	17	17	0.20	0.00	5	1	75	76	0.00	7.5	12.6	0	1.046	1.063	1.063	1.063	1.034	0.333	0.174	0.188	0.222	0.030
27-SEP-94 09:07:10 500 PURGE	0.00	0.00	0.0	7	1.301	16	17	23	1.80	0.00	4	1	75	76	0.14	14.0	15.1	-0	1.164	1.165	1.167	1.170	1.140	0.072	0.042	0.040	0.074	0.000
27-SEP-94 09:08:10 500 PURGE	0.00	0.30	0.0	6	1.330	15	17	24	2.17	0.00	4	2	76	76	0.09	13.9	15.1	-0	1.184	1.177	1.179	1.179	1.159	0.035	0.010	0.017	0.049	0.000
27-SEP-94 09:09:10 500 PURGE	0.00	0.00	0.0	6	1.321	16	17	23	2.18	0.00	4	2	76	76	0.17	13.8	15.2	0	1.189	1.186	1.182	1.181	1.150	0.029	0.017	0.022	0.033	0.000
27-SEP-94 09:10:10 500 PURGE	0.00	0.00	0.0	6	1.308	15	17	24	2.22	0.00	4	2	76	77	0.16	13.9	15.1	-0	1.184	1.189	1.188	1.178	1.151	0.015	0.315	0.017	0.044	0.000
27-SEP-94 09:11:10 500 PURGE	0.00	9.00	0.0	6	1.296	15	17	24	2.20	0.03	4	2	76	76	6.00	14.0	15.1	-0	1.192	1.190	1.185	1.182	1.147	0.013	0.015	0.015	0.051	0.000
27-SEP-94 09:12:10 500 PURGE	0.00	0.00	0.0	6	1.270	15	17	24	2.31	0.20	4	2	76	77	0.00	14.0	15.0	-0	1.186	1.193	1.188	1.184	1.142	0.011	0.016	0.020	0.040	0.000
27-SEP-94 09:13:10 500 PURGE	9.30	0.30	6.0	5	1.264	15	17	24	2.33	0.00	5	2	76	77	0.00	13.9	15.1	-0	1.182	1.190	1.182	1.184	1.140	0.011	0.015	0.015	0.010	0.000
27-SEP-94 09:14:10 500 PURGE	9.00	0.00	0.0	6	1.246	15	17	24	2.34	0.00	5	2	76	77	0.16	14.0	15.2	-0	1.190	1.193	1.194	1.183	1.143	0.009	0.011	0.013	0.044	0.000
27-SEP-94 09:15:10 500 PURGE	9.00	0.00	0.0	6	1.228	15	17	24	2.36	0.00	5	2	76	76	0.15	14.0	15.2	-0	1.189	1.195	1.194	1.180	1.154	0.012	0.013	0.013	0.044	0.000
27-SEP-94 09:16:10 500 PURGE	0.00	0.00	0.0	6	1.213	15	17	24	2.32	0.00	5	2	76	76	0.05	13.9	15.2	-0	1.197	1.190	1.197	1.187	1.149	0.006	0.013	0.314	0.002	0.900
27-SEP-94 09:17:10 500 PURGE	5.00	0.00	0.0	6	1.189	15	17	24	2.30	0.00	4	2	76	77	0.00	14.0	15.2	-0	1.186	1.193	1.192	1.180	1.149	0.009	0.010	0.011	0.045	0.000
27-SEP-94 09:18:10 500 PURGE	0.00	0.00	0.0	6	1.165	15	16	23	2.24	0.00	5	2	76	76	0.14	13.9	15.2	-0	1.195	1.195	1.188	1.177	1.151	0.007	0.011	0.012	0.040	0.000
27-SEP-94 09:19:10 500 PURGE	9.00	0.00	0.0	6	1.144	15	17	23	2.16	0.00	4	2	76	76	0.00	13.9	15.1	-0	1.193	1.186	1.192	1.132	1.146	0.009	0.015	0.016	0.045	0.000
27-SEP-94 09:20:10 500 PURGE	3.00	0.00	0.0	6	1.115	15	17	22	2.21	0.00	5	2	76	77	5.12	13.8	15.1	-0	1.192	1.193	1.193	1.187	1.147	0.011	0.010	0.011	0.040	0.000
27-SEP-94 09:21:10 500 PURGE	3.10	0.00	0.0	4	1.002	10	17	15	0.49	0.00	5	3	74	[illegible]	5.33	[illegible]	15.1	-5	1.205	1.129	1.127	1.101	1.133	0.009	0.313	0.011	3.045	0.201

27-SEP-94 09:24:10 500 PURGE	0.00	0.00	0.0	6	0.962	15	17	17	0.10	0.00	5	2	76	76	0.00	10.4	15.2	-0	1.193	1.190	1.186	1.184	1.155	0.010	0.017	0.015	0.044	0.000
27-SEP-94 09:25:10 500 PURGE	0.00	0.00	0.0	7	0.934	15	17	20	2.49	0.00	5	2	76	77	0.36	13.9	15.2	-0	1.180	1.197	1.180	1.179	1.150	0.013	0.013	0.010	0.051	0.000
27-SEP-94 09:26:10 500 PURGE	0.00	0.00	0.0	6	0.907	15	17	27	2.57	0.00	5	2	76	77	0.32	13.9	15.2	-0	1.192	1.180	1.186	1.183	1.153	0.012	0.017	0.013	0.045	0.000
27-SEP-94 09:27:10 500 PURGE	0.00	0.00	0.0	6	0.878	14	17	27	2.49	0.00	5	2	76	77	0.32	13.9	15.2	-0	1.195	1.192	1.190	1.186	1.149	0.011	0.011	0.011	0.039	0.000
27-SEP-94 09:28:10 500 PURGE	0.00	0.00	0.0	6	0.851	15	17	27	2.52	0.00	5	2	76	77	0.34	13.9	15.1	-0	1.182	1.179	1.186	1.181	1.151	0.013	0.013	0.012	0.043	0.000
27-SEP-94 09:29:10 500 PURGE	0.00	0.00	0.0	6	0.827	15	17	26	2.57	0.00	5	2	76	77	0.35	14.0	15.1	-0	1.187	1.188	1.177	1.182	1.153	0.006	0.007	0.013	0.043	0.000
27-SEP-94 09:30:10 500 PURGE	0.00	0.00	0.0	6	0.804	15	17	26	2.52	0.00	5	2	76	77	0.34	14.0	15.2	-0	1.189	1.195	1.187	1.178	1.154	0.015	0.013	0.011	0.046	0.000
27-SEP-94 09:31:10 500 PURGE	0.00	0.00	0.0	6	0.781	15	17	26	2.51	0.00	5	2	76	77	0.32	14.0	15.1	-0	1.184	1.192	1.194	1.187	1.153	0.011	0.012	0.013	0.045	0.060
27-SEP-94 09:32:10 500 PURGE	0.00	0.00	0.0	6	0.759	15	17	26	2.58	0.00	5	2	76	77	0.32	13.8	15.1	-0	1.189	1.197	1.187	1.182	1.155	0.004	0.012	0.013	0.044	0.000
27-SEP-94 09:33:10 500 PURGE	0.00	0.00	0.0	5	0.736	15	17	25	2.57	0.00	5	2	76	77	0.34	13.9	15.1	-0	1.180	1.190	1.186	1.179	1.149	0.011	0.011	0.012	0.043	0.000
27-SEP-94 09:34:10 500 PURGE	0.00	0.00	0.0	5	0.714	15	17	25	2.55	0.00	5	2	77	77	0.30	13.9	15.2	-0	1.190	1.186	1.180	1.178	1.143	0.007	0.010	0.011	0.037	0.000

DATE: 27-SEP-94 LFSPE OXYGEN GENERATION TIME: 09:34:49
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 406 LEVEL: 4

V003 FILL1/DRAIN2	LEV406-1 OFF	P706-1 15 PSIA
V005-1 VENT	LEV406-2 OFF	P706-2 17 PSIA
V005-2 VENT	LEV406-3 OFF	P706-3 25 PSIA
V051-1 CLOSED	LEV406-4 ON	DP709 2.62 PSID
V051-2 CLOSED	LEV406-5 OFF	DP708 0.00 PSID
V053 OPEN	LEV406-6 OFF	DP749-1 5 PSID
V001-1 CLOSED	LEV406-7 OFF	DP749-2 2 PSID
V001-2 CLOSED	PHR705 OFF	T742-1 77 F
V001-3 CLOSED		T742-2 77 F
V001-4 CLOSED	CALC745 0.37 GPH	T736-1 77 F
FAN422 OFF	LEV405-1 12.6 CU IN	T736-2 78 F
PMP463 ON	LEV405-2 15.1 CU IN	P713 12 PSIS
PMP464 OFF		

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 1 OF 2

DATE: 27-SEP-94 LFSPE OXYGEN GENERATION TIME: 09:35:00
MODE: ON STATE: PURGE STATUS: NORMAL

OXYGEN PRODUCTION RATE: 0.00 LB/DAY HYDROGEN PRODUCTION RATE: 0.00 LB/DAY
OPERATING TIME: 0.0 HOURS LAST 406 LEVEL: 4

V003 FILL2/DRAIN1	LEV406-1 OFF	P706-1 15 PSIA
V005-1 VENT	LEV406-2 OFF	P706-2 17 PSIA
V005-2 VENT	LEV406-3 OFF	P706-3 25 PSIA
V051-1 CLOSED	LEV406-4 ON	DP709 2.60 PSID
V051-2 CLOSED	LEV406-5 OFF	DP708 0.00 PSID
V053 OPEN	LEV406-6 OFF	DP749-1 5 PSID
V001-1 CLOSED	LEV406-7 OFF	DP749-2 2 PSID
V001-2 CLOSED	PHR705 OFF	T742-1 77 F
V001-3 CLOSED		T742-2 77 F
V001-4 CLOSED	CALC745 0.33 GPH	T736-1 77 F
FAN422 OFF	LEV405-1 12.7 CU IN	T736-2 78 F
PMP463 ON	LEV405-2 15.0 CU IN	P713 13 PSIS
PMP464 OFF		

ANOMALY:

27-SEP-94 09:35:09 500 PURGE	0.00	0.00	0.0	4	0.691	15	17	25	2.54	0.00	5	2	76	77	0.34	12.6	15.2	-0	1.186	1.192	1.183	1.179	1.154	0.012	0.012	0.009	0.053	0.000
27-SEP-94 09:36:10 500 PURGE	0.00	0.00	0.0	4	0.664	15	20	25	2.60	0.00	8	5	77	77	0.35	12.6	15.1	-0	1.186	1.194	1.185	1.176	1.145	0.011	0.009	0.015	0.040	0.050
27-SEP-94 09:37:09 500 PURGE	0.00	0.00	0.0	3	0.639	15	20	23	2.47	0.00	8	5	77	77	0.34	12.6	15.1	-0	1.184	1.186	1.179	1.170	1.141	0.007	0.013	0.011	0.044	0.000
27-SEP-94 09:38:10 500 PURGE	0.00	0.00	0.0	3	0.618	15	23	25	2.67	0.00	10	7	77	76	0.34	12.6	15.2	-0	1.190	1.188	1.183	1.181	1.143	0.010	0.011	0.009	0.032	0.090
27-SEP-94 09:39:10 500 PURGE	0.00	0.00	0.0	3	0.595	15	31	24	2.61	0.00	19	16	77	77	0.35	12.6	15.2	-3	1.187	1.184	1.192	1.183	1.151	0.012	0.011	0.011	0.046	0.000
27-SEP-94 09:40:10 500 PURGE	0.00	0.00	0.0	3	0.576	15	40	25	2.50	0.00	29	25	77	77	0.35	12.7	15.1	-0	1.183	1.180	1.181	1.185	1.151	0.010	0.013	0.310	0.049	0.300
27-SEP-94 09:41:10 500 PURGE	0.00	3.00	9.0	3	0.550	15	45	24	2.51	0.33	29	33	[illegible]	[illegible]	[illegible]	[illegible]	15.2	[illegible]	1.192	1.192	1.190	1.192	1.159	0.013	0.387	0.013	0.048	0.993

27-SEP-94 09:44:10 500 PROCESS-VENT	11.33	1.41	0.0	3	1.951	47	72	52	2.47	2.09	50	20	83	77	0.33	12.4	15.2	60	1.193	1.183	1.192	1.167	1.147	0.026	0.023	0.026	0.054	0.000
27-SEP-94 09:45:10 500 PROCESS-VENT	11.46	1.43	0.0	3	1.902	41	79	65	2.20	1.09	55	18	85	77	0.36	10.1	12.7	60	1.186	1.175	1.192	1.176	1.155	0.026	0.026	0.028	0.063	0.000
27-SEP-94 09:46:10 500 PROCESS-VENT	11.41	1.42	0.0	3	1.906	47	87	72	2.13	1.08	58	18	88	77	0.28	12.4	15.3	60	1.183	1.188	1.182	1.178	1.145	0.022	0.029	0.026	0.053	0.000
27-SEP-94 09:47:10 500 PROCESS-VENT	11.35	1.42	0.0	4	1.908	72	93	77	2.06	1.92	41	20	89	77	0.30	12.5	12.5	60	1.178	1.179	1.187	1.177	1.147	0.035	0.030	0.039	0.070	0.000
27-SEP-94 09:48:09 500 PROCESS-VENT	11.42	1.42	0.0	3	1.902	78	100	83	2.10	2.15	41	20	91	77	0.34	13.9	12.7	60	1.168	1.170	1.177	1.166	1.143	0.051	0.040	0.053	0.082	0.000
27-SEP-94 09:49:10 500 PROCESS-VENT	11.35	1.42	0.0	3	1.977	82	100	84	2.11	2.10	43	17	93	77	0.30	15.1	12.6	60	1.171	1.165	1.168	1.168	1.143	0.061	0.053	0.066	0.080	0.000
27-SEP-94 09:50:09 500 PROCESS-VENT	11.40	1.42	0.0	3	1.960	81	99	86	2.15	1.99	44	17	95	77	0.32	15.1	12.7	60	1.165	1.167	1.166	1.172	1.140	0.070	0.054	0.071	0.080	0.000
27-SEP-94 09:51:09 500 PROCESS-VENT	11.37	1.42	0.0	3	1.964	81	99	87	2.21	1.97	44	17	96	77	0.29	14.4	12.5	60	1.162	1.165	1.159	1.165	1.154	0.066	0.054	0.076	0.097	0.000
27-SEP-94 09:52:09 500 PROCESS-VENT	11.43	1.42	0.0	3	1.963	81	99	86	2.19	3.23	43	18	97	77	0.34	13.9	11.4	60	1.159	1.161	1.156	1.162	1.149	0.077	0.061	0.090	0.101	0.000
27-SEP-94 09:53:09 500 PROCESS-VENT	11.39	1.42	0.0	3	1.950	79	99	85	2.14	3.13	43	18	98	77	0.36	10.0	15.1	60	1.161	1.159	1.151	1.159	1.150	0.074	0.056	0.070	0.096	0.000
27-SEP-94 09:54:09 500 PROCESS-VENT	11.37	1.42	0.0	4	1.950	78	100	84	2.23	2.76	43	20	99	77	0.30	12.6	15.1	60	1.155	1.160	1.156	1.150	1.151	0.062	0.062	0.081	0.100	0.000
27-SEP-94 09:55:09 500 PROCESS-VENT	11.41	1.42	0.0	3	1.946	78	100	86	2.25	2.36	43	20	101	77	0.36	13.7	15.1	60	1.161	1.154	1.159	1.153	1.142	0.070	0.061	0.085	0.092	0.000
27-SEP-94 09:56:09 500 PROCESS-VENT	11.34	1.41	0.0	3	1.940	79	100	86	2.21	2.11	43	20	102	77	0.39	15.1	15.1	60	1.162	1.159	1.155	1.159	1.147	0.074	0.063	0.076	0.087	0.000
27-SEP-94 09:57:09 500 PROCESS-VENT	11.33	1.41	0.0	3	1.933	78	99	89	2.20	2.00	44	20	102	77	0.36	15.1	15.2	60	1.162	1.155	1.161	1.154	1.150	0.073	0.070	0.070	0.105	0.000
27-SEP-94 09:58:09 500 PROCESS-VENT	11.39	1.42	0.0	2	1.929	79	99	85	2.23	2.00	43	19	104	77	0.36	16.4	13.9	60	1.162	1.165	1.162	1.150	1.147	0.071	0.070	0.071	0.105	0.000
27-SEP-94 09:59:09 500 PROCESS-VENT	11.36	1.42	0.0	3	1.930	82	100	87	2.25	3.02	43	17	103	78	0.30	13.9	11.4	60	1.154	1.153	1.150	1.140	1.144	0.077	0.077	0.087	0.110	0.000
27-SEP-94 10:00:09 500 PROCESS-VENT	11.30	1.42	0.0	4	1.923	80	99	86	2.22	3.50	43	18	104	78	0.30	11.4	12.4	60	1.149	1.150	1.154	1.149	1.150	0.077	0.071	0.079	0.104	0.000
27-SEP-94 10:01:09 500 PROCESS-VENT	11.37	1.42	0.0	4	1.920	78	99	84	2.30	3.29	43	20	105	78	0.37	11.3	13.9	60	1.150	1.150	1.155	1.156	1.149	0.073	0.071	0.070	0.096	0.000
27-SEP-94 10:02:09 500 PROCESS-VENT	11.33	1.41	0.0	3	1.913	78	100	84	2.27	2.77	43	20	106	78	0.37	11.4	15.2	60	1.155	1.155	1.156	1.159	1.147	0.077	0.063	0.081	0.101	0.000
27-SEP-94 10:03:09 500 PROCESS-VENT	11.41	1.42	0.0	3	1.907	79	100	86	2.20	2.37	43	20	107	78	0.41	11.3	17.6	60	1.154	1.150	1.149	1.156	1.145	0.073	0.065	0.070	0.104	0.000
27-SEP-94 10:04:09 500 PROCESS-VENT	11.37	1.42	0.0	3	1.903	79	99	88	2.30	2.11	43	20	108	77	0.40	11.4	17.0	60	1.156	1.050	1.153	1.154	1.144	0.074	0.072	0.082	0.097	0.000
27-SEP-94 10:05:09 500 PROCESS-VENT	11.30	1.42	0.0	3	1.903	81	100	86	2.29	2.91	43	18	108	78	0.43	12.4	15.1	60	1.151	1.147	1.149	1.155	1.156	0.083	0.074	0.070	0.110	0.000
27-SEP-94 10:06:09 500 PROCESS-VENT	11.37	1.42	0.0	3	1.902	81	99	86	2.30	3.19	43	18	107	78	0.44	12.4	11.4	60	1.159	1.140	1.155	1.165	1.140	0.089	0.079	0.080	0.115	0.000
27-SEP-94 10:07:09 500 PROCESS-VENT	11.34	1.41	0.0	4	1.899	78	100	85	2.35	4.10	43	20	109	79	0.30	16.3	12.7	60	1.160	1.154	1.140	1.155	1.144	0.082	0.073	0.077	0.107	0.000
27-SEP-94 10:08:09 500 PROCESS-VENT	11.39	1.42	0.0	3	1.890	79	100	85	2.30	3.74	43	20	109	79	0.37	16.5	14.4	60	1.155	1.153	1.159	1.158	1.150	0.082	0.060	0.073	0.110	0.000
27-SEP-94 10:09:09 500 PROCESS-VENT	11.30	1.41	0.0	3	1.886	79	100	88	2.37	3.30	43	20	110	79	0.41	16.3	15.2	60	1.154	1.151	1.150	1.151	1.149	0.071	0.070	0.076	0.103	0.000
27-SEP-94 10:10:09 500 PROCESS-VENT	11.46	1.43	0.0	3	1.881	78	100	86	2.35	2.88	43	20	110	79	0.36	16.4	15.1	60	1.160	1.151	1.149	1.149	1.154	0.074	0.074	0.076	0.107	0.000
27-SEP-94 10:11:09 500 PROCESS-VENT	11.38	1.42	0.0	2	1.879	80	100	86	2.32	2.04	43	18	111	79	0.41	15.1	17.7	60	1.154	1.140	1.151	1.151	1.151	0.081	0.078	0.081	0.114	0.000
27-SEP-94 10:12:09 500 PROCESS-VENT	11.31	1.41	0.0	3	1.881	82	99	87	2.33	2.93	43	17	111	79	0.41	11.4	16.5	60	1.145	1.151	1.151	1.140	1.149	0.080	0.074	0.085	0.123	0.000
27-SEP-94 10:13:09 500 PROCESS-VENT	11.30	1.42	0.0	4	1.877	79	100	86	2.43	3.05	43	19	111	79	0.39	12.6	15.2	60	1.145	1.147	1.151	1.144	1.143	0.071	0.065	0.090	0.112	0.000
27-SEP-94 10:14:09 500 PROCESS-VENT	11.31	1.41	0.0	4	1.874	79	100	84	2.30	2.63	43	20	112	79	0.40	13.9	15.2	60	1.155	1.144	1.144	1.151	1.153	0.089	0.076	0.083	0.117	0.000
27-SEP-94 10:15:09 500 PROCESS-VENT	11.32	1.41	0.0	3	1.870	78	100	84	2.41	2.20	43	20	112	79	0.41	15.2	15.1	60	1.149	1.147	1.145	1.142	1.147	0.079	0.076	0.092	0.115	0.000
27-SEP-94 10:16:09 500 PROCESS-VENT	11.44	1.43	0.0	3	1.866	78	99	85	2.37	2.44	43	20	113	80	0.38	16.4	15.1	60	1.153	1.153	1.156	1.142	1.143	0.076	0.070	0.085	0.101	0.000
27-SEP-94 10:17:09 500 PROCESS-VENT	11.41	1.42	0.0	3	1.862	79	100	84	2.41	1.97	43	20	113	79	0.38	17.7	15.1	60	1.151	1.150	1.147	1.147	1.151	0.079	0.066	0.079	0.115	0.000
27-SEP-94 10:18:00 500 PROCESS-VENT	11.40	1.42	0.0	3	1.863	81	100	87	2.30	2.10	43	17	113	80	0.40	17.7	11.4	60	1.159	1.153	1.150	1.140	1.150	0.087	0.063	0.082	0.117	0.000
27-SEP-94 10:19:09 500 PROCESS-VENT	11.30	1.42	0.0	3	1.865	81	100	88	2.34	4.23	43	17	113	80	0.42	12.6	12.7	60	1.149	1.155	1.151	1.144	1.153	0.082	0.071	0.088	0.116	0.000
27-SEP-94 10:20:09 500 PROCESS-VENT	11.40	1.42	0.0	4	1.858	79	100	85	2.42	3.83	43	19	114	81	0.43	12.6	14.0	60	1.154	1.140	1.147	1.150	1.150	0.079	0.071	0.088	0.109	0.000
27-SEP-94 10:21:09 500 PROCESS-VENT	11.34	1.41	0.0	3	1.853	78	100	85	2.40	3.75	42	20	114	80	0.42	12.6	15.1	60	1.140	1.140	1.142	1.140	1.143	0.084	0.074	0.082	0.106	0.000
27-SEP-94 10:22:09 500 PROCESS-VENT	11.30	1.41	0.0	3	1.849	79	100	84	2.40	2.91	43	20	115	81	0.45	12.7	16.5	60	1.150	1.150	1.150	1.149	1.145	0.082	0.070	0.084	0.112	0.000
27-SEP-94 10:23:00 500 PROCESS-VENT	11.36	1.42	0.0	3	1.847	79	100	85	2.45	2.86	42	20	115	81	0.41	12.4	17.7	60	1.149	1.144	1.149	1.155	1.139	0.084	0.079	0.089	0.115	0.000
27-SEP-94 10:24:09 500 PROCESS-VENT	11.36	1.42	0.0	2	1.844	80	100	86	2.45	2.41	43	18	115	81	0.43	11.3	10.1	60	1.147	1.054	1.144	1.151	1.143	0.084	0.077	0.094	0.122	0.000
27-SEP-94 10:25:09 500 PROCESS-VENT	11.31	1.41	0.0	3	1.847	82	100	88	2.47	3.86	42	17	114	81	0.40	12.6	13.9	60	1.147	1.147	1.160	1.156	1.143	0.082	0.079	0.090	0.123	0.000
27-SEP-94 10:26:00 500 PROCESS-VENT	11.36	1.42	0.0	4	1.845	79	100	86	2.41	3.02	43	19	115	81	0.47	13.0	11.4	60	1.145	1.147	1.147	1.145	1.140	0.084	0.083	0.087	0.116	0.000
27-SEP-94 10:27:09 500 PROCESS-VENT	11.32	1.41	0.0	4	1.841	79	100	85	2.46	2.30	43	20	116	81	0.44	15.1	11.4	60	1.140	1.150	1.150	1.140	1.155	0.087	0.074	0.076	0.111	0.000
27-SEP-94 10:28:09 500 PROCESS-VENT	11.39	1.42	0.0	3	1.839	79	100	84	2.47	2.14	43	20	116	81	0.44	16.3	11.4	60	1.150	1.147	1.154	1.147	1.142	0.079	0.083	0.083	0.121	0.000
27-SEP-94 10:29:09 500 PROCESS-VENT	11.35	1.41	0.0	3	1.835	79	100	85	2.34	2.08	42	20	116	81	0.42	17.6	11.3	60	1.147	1.140	1.144	1.144	1.149	0.078	0.076	0.079	0.120	0.000
27-SEP-94 10:30:00 500 PROCESS-VENT	11.39	1.42	0.0	3	1.835	79	100	85	2.46	1.08	43	20	117	81	0.39	10.9	11.5	60	1.151	1.140	1.140	1.139	1.149	0.079	0.081	0.089	0.112	0.000
27-SEP-94 10:31:00 500 PROCESS-VENT	11.40	1.42	0.0	3	1.835	81	100	87	2.44	4.40	43	17	116	81	0.44	13.9	12.7	60	1.143	1.135	1.149	1.145	1.143	0.082	0.082	0.083	0.120	0.000
27-SEP-94 10:32:09 500 PROCESS-VENT	11.20	1.41	0.0	4	1.834	80	100	86	2.55	4.30	42	19	116	82	0.45	11.3	16.5	60	1.140	1.149	1.142	1.140	1.153	0.080	0.072	0.095	0.111	0.000
27-SEP-94 10:33:09 500 PROCESS-VENT	11.40	1.42	0.0	4	1.831	81	99	87	2.52	3.92	42	18	117	82	0.40	12.6	16.3	60	1.149	1.144	1.156	1.140	1.151	0.081	0.082	0.075	0.107	0.000
27-SEP-94 10:34:00 500 PROCESS-VENT	11.34	1.41	0.0	3	1.828	81	100	87	2.54	3.40	42	17	117	82	0.45	13.9	16.4	60	1.142	1.140	1.147	1.147	1.143	0.093	0.080	0.092	0.114	0.000
27-SEP-94 10:35:00 500 PROCESS-VENT	11.39	1.42	0.0	3	1.824	82	99	88	2.52	3.05	42	17	117	83	0.45	15.1	16.4	60	1.149	1.147	1.140	1.147	1.149	0.090	0.082	0.094	0.107	0.000
27-SEP-94 10:36:00 500 PROCESS-VENT	11.35	1.42	0.0	3	1.823	81	100	88	2.49	2.46	42	17	118	83	0.41	15.1	16.4	60	1.153	1.145	1.147	1.130	1.150	0.085	0.074	0.093	0.110	0.000
27-SEP-94 10:37:00 500 PROCESS-VENT	11.34	1.41	0.0	3	1.825	82	100	88	2.50	2.05	42	17	117	83	0.45	17.6	11.3	60	1.150	1.153	1.147	1.145	1.153	0.090	0.077	0.090	0.122	0.000
27-SEP-94 10:38:00 500 PROCESS-VENT	11.36	1.42	0.0	4	1.820	81	100	88	2.52	4.08	42	17	117	83	0.43	13.0	12.6	60	1.140	1.150	1.144	1.143	1.144	0.080	0.076	0.090	0.118	0.000
27-SEP-94 10:39:00 500 PROCESS-VENT	11.35	1.42	0.0	4	1.822	79	100	86	2.52	4.40	43	19	117	83	0.40	13.9	14.0	60	1.147	1.149	1.145	1.142	1.144	0.089	0.085	0.090	0.117	0.000
27-SEP-94 10:40:00 500 PROCESS-VENT	11.31	1.41	0.0	3	1.819	80	100	86	2.49	3.95	42	18	118	84	0.43	13.0	15.2	59	1.149	1.144	1.149	1.145	1.140	0.092	0.073	0.092	0.118	0.000
27-SEP-94 10:41:00 500 PROCESS	11.40	1.42	0.0	3	1.817	80	100	87	2.35	3.53	42	18	119	83	0.44	13.9	16.2	60	1.147	1.145	1.145	1.142	1.140	0.087	0.070	0.087	0.118	0.000
27-SEP-94 10:42:00 500 PROCESS	11.31	1.41	0.0	3	1.815	81	100	87	2.55	3.10	42	18	119	83	0.44	13.9	17.7	60	1.139	1.149	1.145	1.140	1.136	0.092	0.083	0.090	0.119	0.000
27-SEP-94 10:43:00 500 PROCESS	11.36	1.42	0.0	2	1.817	82	100	87	2.35	3.37	42	17	118	84	0.44	11.3	17.7	60	1.145	1.154	1.144	1.140	1.140	0.090	0.079	0.092	0.127	0.000
27-SEP-94 10:44:00 500 PROCESS	11.35	1.42	0.0	3	1.819	81	100	88	2.33	3.80	42	17	118	83	0.44	12.5	12.6	60	1.143	1.140	1.142	1.143	1.149	0.087	0.082	0.095	0.122	0.000
27-SEP-94 10:45:00 500 PROCESS	11.31	1.41	0.0	4	1.814	79	100	85	2.57	3.40	42	19	118	84	0.46	13.0	12.5	60	1.155	1.160	1.156	1.149	1.154	0.084	0.077	0.093	0.114	0.000
27-SEP-94 10:46:00 500 PROCESS	11.41	1.42	0.0	3	1.813	79	100	86	2.54	2.03	42	19	119	84	0.45	15.0	12.7	60	1.151	1.140	1.130	1.143	1.147	0.093	0.089	0.090	0.120	0.000

MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.30 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY

OPERATING TIME: 0.1 HOURS LAST 606 LEVEL: 3

CG746-1	-2	% LEL	H2V760-1	1.148 V	VLT906-1	1.032	V
CG746-2	-1	% LEL	H2V760-2	1.140 V	VLT906-2	1.797	V
CG746-3	-0	% LEL	H2V760-3	1.134 V	VLT906-3	1.769	V
CG746-4	-1	% LEL	H2V760-4	1.154 V	VLT906-4	1.769	V
CS755	0.9	UMHO/CM	H2V900	1.150 V	VLT906-5	1.750	V
I766	60	AMPS	H2PAVG	1.151 V	VLT906-6	1.769	V
					VLT906-7	1.053	V
			I760-1	0.093 A	VLT906-8	1.005	V
			I760-2	0.085 A	VLT906-9	1.001	V
			I760-3	0.092 A	VLT906-10	1.774	V
			I760-4	0.114 A	VLT906-11	1.005	V
			I900	0.000 A	VLT906-12	1.040	V
					CELLAVG	1.010	V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

27-SEP-94 10:48:00 500 PROCESS	11.35	1.42	0.1	3	1.022	82	100	08	2.62	2.10	62	17	117	05	0.44	17.6	12.7	60	1.137	1.143	1.149	1.140	1.147	0.095	0.085	0.093	0.123	0.000
27-SEP-94 10:49:00 500 PROCESS	11.34	1.41	0.1	2	1.034	81	100	07	2.56	3.34	62	18	114	05	0.44	17.7	11.4	60	1.129	1.154	1.144	1.139	1.150	0.098	0.084	0.090	0.123	0.000
27-SEP-94 10:50:00 500 PROCESS	11.31	1.41	0.1	3	1.024	81	100	07	2.55	4.02	62	18	115	05	0.46	12.6	12.6	60	1.072	1.148	1.139	1.139	1.145	0.088	0.085	0.099	0.120	0.000
27-SEP-94 10:51:00 500 PROCESS	11.40	1.42	0.1	4	1.021	79	100	06	2.57	4.64	62	19	115	05	0.43	11.3	16.4	60	1.020	1.147	1.144	1.140	1.151	0.087	0.087	0.098	0.114	0.000
27-SEP-94 10:52:00 500 PROCESS	11.40	1.42	0.1	4	1.019	80	100	06	2.54	4.13	62	19	117	05	0.43	12.6	16.4	60	0.984	1.145	1.145	1.145	1.145	0.090	0.085	0.092	0.118	0.000
27-SEP-94 10:53:00 500 PROCESS	11.34	1.41	0.1	3	1.016	80	100	06	2.56	3.57	62	19	118	05	0.42	13.9	16.3	60	0.950	1.139	1.138	1.132	1.148	0.090	0.079	0.098	0.117	0.000
27-SEP-94 10:54:00 500 PROCESS	11.35	1.42	0.1	3	1.012	80	100	07	2.64	2.98	62	18	118	05	0.39	15.1	16.5	60	0.915	1.151	1.149	1.139	1.143	0.092	0.082	0.098	0.118	0.000
27-SEP-94 10:55:00 500 PROCESS	11.34	1.42	0.2	2	1.010	81	100	07	2.42	2.35	62	17	118	05	0.45	14.4	15.1	60	0.890	1.138	1.137	1.137	1.151	0.093	0.081	0.095	0.121	0.000
27-SEP-94 10:56:00 500 PROCESS	11.38	1.42	0.2	3	1.015	82	100	08	2.37	2.16	62	17	118	05	0.43	17.6	11.3	60	0.863	1.143	1.147	1.139	1.149	0.087	0.078	0.088	0.125	0.000
27-SEP-94 10:57:00 500 PROCESS	11.38	1.41	0.2	4	1.014	80	100	07	2.63	5.25	62	19	117	06	0.43	15.1	12.7	60	0.829	1.145	1.143	1.132	1.149	0.094	0.083	0.099	0.117	0.000
27-SEP-94 10:58:00 500 PROCESS	11.38	1.41	0.2	4	1.011	80	100	07	2.58	4.68	62	18	118	06	0.45	15.0	13.9	60	0.817	1.148	1.143	1.136	1.154	0.089	0.079	0.087	0.116	0.000
27-SEP-94 10:59:00 500 PROCESS	11.40	1.42	0.2	3	1.009	82	100	08	2.58	4.20	62	17	119	06	0.44	15.0	15.2	60	0.785	1.140	1.138	1.145	1.142	0.094	0.083	0.100	0.117	0.000
27-SEP-94 11:00:00 500 PROCESS	11.31	1.41	0.2	3	1.009	82	100	08	2.65	3.04	62	17	119	06	0.42	15.1	16.4	60	0.774	1.140	1.144	1.149	1.145	0.092	0.089	0.099	0.115	0.000
27-SEP-94 11:01:00 500 PROCESS	11.30	1.41	0.3	2	1.023	82	100	08	2.60	3.30	62	17	115	06	0.44	13.9	17.7	60	0.757	1.140	1.142	1.149	1.149	0.101	0.084	0.094	0.125	0.000
27-SEP-94 11:02:00 500 PROCESS	11.34	1.41	0.3	3	1.020	82	100	08	2.40	4.27	62	17	116	06	0.45	11.3	16.4	60	0.744	1.140	1.145	1.147	1.153	0.092	0.085	0.098	0.125	0.000
27-SEP-94 11:03:00 500 PROCESS	11.32	1.41	0.3	4	1.020	81	100	08	2.42	4.03	62	18	116	07	0.44	12.6	12.6	60	0.730	1.138	1.147	1.147	1.151	0.090	0.078	0.083	0.121	0.000
27-SEP-94 11:04:00 500 PROCESS	11.37	1.42	0.3	4	1.014	80	100	06	2.40	3.32	62	19	116	07	0.42	13.0	12.5	60	0.717	1.143	1.142	1.143	1.143	0.094	0.085	0.098	0.118	0.000
27-SEP-94 11:05:00 500 PROCESS	11.26	1.40	0.3	3	1.013	80	100	06	2.62	3.07	62	18	118	07	0.43	15.1	12.7	60	0.700	1.149	1.140	1.145	1.143	0.092	0.079	0.088	0.120	0.000
27-SEP-94 11:06:00 500 PROCESS	11.31	1.41	0.3	3	1.009	81	100	07	2.57	2.66	62	18	118	07	0.42	17.6	12.7	60	0.695	1.145	1.144	1.134	1.158	0.085	0.078	0.095	0.114	0.000
27-SEP-94 11:07:00 500 PROCESS	11.36	1.42	0.4	3	1.007	80	100	06	2.56	2.09	62	18	119	07	0.46	17.6	12.6	60	0.691	1.149	1.147	1.139	1.147	0.094	0.082	0.089	0.126	0.000
27-SEP-94 11:08:00 500 PROCESS	11.35	1.42	0.4	3	1.009	82	100	08	2.56	4.96	62	17	118	07	0.42	14.4	11.3	60	0.679	1.134	1.144	1.139	1.144	0.107	0.093	0.104	0.134	0.000
27-SEP-94 11:09:00 500 PROCESS	11.36	1.42	0.4	3	1.010	82	100	08	2.63	4.90	62	17	118	07	0.42	12.4	13.9	60	0.672	1.140	1.144	1.139	1.147	0.094	0.083	0.088	0.129	0.000
27-SEP-94 11:10:07 500 PROCESS	11.38	1.42	0.4	4	1.007	80	100	07	2.67	4.41	62	19	118	07	0.41	11.3	15.1	60	0.663	1.144	1.143	1.134	1.147	0.090	0.087	0.101	0.123	0.000
27-SEP-94 11:11:00 500 PROCESS	11.32	1.41	0.4	3	1.004	82	100	08	2.58	4.15	62	17	119	06	0.43	12.4	15.1	60	0.659	1.150	1.144	1.136	1.149	0.093	0.087	0.092	0.116	0.000
27-SEP-94 11:12:07 500 PROCESS	11.32	1.41	0.4	3	1.003	82	100	08	2.44	3.71	62	17	119	07	0.44	13.9	15.1	60	0.657	1.140	1.143	1.134	1.155	0.088	0.077	0.093	0.126	0.000
27-SEP-94 11:13:00 500 PROCESS	11.31	1.41	0.4	3	1.021	82	100	08	2.60	3.25	62	17	114	07	0.43	15.1	15.2	60	0.647	1.140	1.140	1.143	1.147	0.087	0.078	0.083	0.121	0.000
27-SEP-94 11:14:00 500 PROCESS	11.31	1.41	0.5	2	1.015	82	100	09	2.57	2.70	62	17	116	07	0.40	17.6	13.9	60	0.640	1.147	1.143	1.142	1.144	0.092	0.087	0.099	0.123	0.000
27-SEP-94 11:15:07 500 PROCESS	11.30	1.42	0.5	3	1.015	82	100	08	2.60	5.06	62	17	116	07	0.39	15.1	11.4	60	0.635	1.138	1.140	1.139	1.140	0.107	0.089	0.094	0.121	0.000
27-SEP-94 11:16:00 500 PROCESS	11.29	1.41	0.5	4	1.012	80	100	07	2.45	5.04	62	19	117	08	0.43	13.9	12.6	60	0.634	1.133	1.148	1.138	1.145	0.088	0.084	0.089	0.114	0.000
27-SEP-94 11:17:07 500 PROCESS	11.37	1.42	0.5	4	1.000	80	100	06	2.41	4.77	62	19	118	08	0.39	13.9	13.9	60	0.640	1.149	1.139	1.136	1.140	0.101	0.083	0.101	0.110	0.000
27-SEP-94 11:18:07 500 PROCESS	11.27	1.40	0.5	3	1.006	80	100	06	2.45	4.30	62	19	118	08	0.45	13.9	15.2	59	0.628	1.147	1.142	1.149	1.147	0.096	0.087	0.100	0.127	0.000
27-SEP-94 11:19:00 500 PROCESS	11.39	1.42	0.5	3	1.003	80	100	06	2.62	3.07	62	19	119	08	0.43	13.9	17.4	60	0.623	1.147	1.148	1.142	1.148	0.094	0.079	0.108	0.123	0.000
27-SEP-94 11:20:07 500 PROCESS	11.39	1.42	0.6	2	1.002	82	100	07	2.60	3.27	62	18	119	08	0.45	12.5	17.7	60	0.628	1.149	1.150	1.147	1.140	0.094	0.090	0.095	0.127	0.000
27-SEP-94 11:21:00 500 PROCESS	11.37	1.42	0.6	3	1.004	82	100	09	2.46	4.34	62	17	118	08	0.43	12.6	15.1	60	0.620	1.138	1.139	1.130	1.144	0.109	0.088	0.104	0.128	0.000
27-SEP-94 11:22:07 500 PROCESS	11.33	1.41	0.6	4	1.002	81	100	08	2.61	4.49	62	18	118	09	0.45	13.8	11.4	60	0.614	1.144	1.140	1.136	1.156	0.107	0.088	0.095	0.118	0.000
27-SEP-94 11:23:07 500 PROCESS	11.36	1.42	0.6	4	1.003	80	100	06	2.63	3.57	62	19	119	09	0.42	15.1	11.4	60	0.621	1.145	1.145	1.139	1.139	0.101	0.085	0.093	0.125	0.000
27-SEP-94 11:24:07 500 PROCESS	11.28	1.41	0.6	3	1.004	79	100	06	2.48	3.15	62	19	119	09	0.45	15.1	11.4	60	0.611	1.139	1.141	1.142	1.140	0.098	0.081	0.092	0.126	0.000
27-SEP-94 11:25:07 500 PROCESS	11.37	1.42	0.6	3	1.019	80	100	06	2.69	2.79	62	19	114	09	0.44	17.6	11.3	60	0.611	1.144	1.141	1.142	1.144	0.096	0.081	0.092	0.121	0.000
27-SEP-94 11:26:07 500 PROCESS	11.32	1.41	0.6	3	1.011	80	101	06	2.62	2.25	62	19	114	09	0.44	10.8	11.4	60	0.612	1.142	1.144	1.139	1.150	0.134	0.079	0.092	0.123	0.000
27-SEP-94 11:27:07 500 PROCESS	11.33	1.41	0.7	[illegible]	1.010	[illegible]	101	[illegible]	2.60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	60	0.604	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

27-SEP-94 11:29:07 500 PROCESS	11.37	1.42	0.7	4	1.006	81	100	88	2.70	5.10	42	18	117	89	0.44	11.3	16.4	60	0.398	1.140	1.145	1.146	1.145	1.096	0.067	0.097	0.114	0.000
27-SEP-94 11:30:07 500 PROCESS	11.36	1.42	0.7	4	1.005	80	100	86	2.69	6.42	42	19	118	89	0.44	12.4	16.3	60	0.404	1.151	1.147	1.139	1.144	0.109	0.085	0.093	0.118	0.000
27-SEP-94 11:31:07 500 PROCESS	11.36	1.42	0.7	3	1.000	80	101	86	2.69	3.90	42	19	118	89	0.44	13.9	16.4	60	0.400	1.140	1.140	1.136	1.150	0.109	0.077	0.098	0.117	0.000
27-SEP-94 11:32:07 500 PROCESS	11.32	1.41	0.7	3	1.000	80	100	86	2.40	3.40	42	19	119	89	0.45	15.1	16.4	60	0.402	1.144	1.144	1.137	1.153	0.104	0.080	0.103	0.125	0.000
27-SEP-94 11:33:07 500 PROCESS	11.39	1.42	0.8	3	1.002	80	101	86	2.40	2.93	42	19	119	90	0.46	17.5	15.1	60	0.390	1.144	1.136	1.143	1.140	0.099	0.070	0.100	0.125	0.000
27-SEP-94 11:34:07 500 PROCESS	11.31	1.41	0.8	3	1.020	82	100	89	2.44	2.55	42	17	114	90	0.43	17.4	11.4	60	0.400	1.137	1.142	1.139	1.143	0.103	0.076	0.076	0.120	0.000
27-SEP-94 11:35:07 500 PROCESS	11.31	1.41	0.8	3	1.011	81	100	88	2.39	5.38	42	18	116	90	0.43	13.9	12.7	60	0.395	1.140	1.145	1.134	1.140	0.106	0.083	0.090	0.134	0.000
27-SEP-94 11:36:07 500 PROCESS	11.35	1.41	0.8	4	1.007	80	100	87	2.40	5.17	42	19	117	90	0.41	13.9	13.9	60	0.401	1.142	1.140	1.133	1.147	0.090	0.079	0.096	0.121	0.000
27-SEP-94 11:37:07 500 PROCESS	11.35	1.42	0.8	3	1.006	80	101	86	2.44	4.71	42	19	118	90	0.41	13.9	15.2	60	0.401	1.150	1.147	1.130	1.145	0.092	0.082	0.098	0.123	0.000
27-SEP-94 11:38:07 500 PROCESS	11.33	1.41	0.8	3	1.003	80	100	86	2.40	6.19	42	19	118	90	0.47	13.8	16.4	60	0.400	1.140	1.140	1.147	1.140	0.097	0.082	0.103	0.122	0.000
27-SEP-94 11:39:07 500 PROCESS	11.28	1.41	0.8	3	1.799	80	100	87	2.40	3.75	42	19	118	90	0.40	13.9	17.7	59	0.393	1.139	1.147	1.145	1.140	0.096	0.079	0.095	0.117	0.000
27-SEP-94 11:40:07 500 PROCESS	11.33	1.41	0.9	2	1.001	82	101	88	2.46	3.23	42	17	119	90	0.45	10.8	19.0	60	0.401	1.137	1.140	1.147	1.142	0.105	0.080	0.091	0.117	0.000
27-SEP-94 11:41:07 500 PROCESS	11.34	1.42	0.9	3	1.001	83	101	89	2.46	4.59	42	16	118	90	0.39	12.5	15.1	60	0.401	1.131	1.138	1.143	1.145	0.110	0.077	0.096	0.123	0.000
27-SEP-94 11:42:07 500 PROCESS	11.39	1.42	0.9	4	1.001	81	100	88	2.72	6.19	42	18	118	90	0.41	13.9	11.3	60	0.404	1.140	1.143	1.140	1.150	0.096	0.083	0.099	0.120	0.000
27-SEP-94 11:43:07 500 PROCESS	11.36	1.42	0.9	4	1.796	81	100	87	2.69	3.73	42	19	119	90	0.45	15.0	11.4	60	0.397	1.137	1.143	1.138	1.154	0.092	0.083	0.095	0.120	0.000
27-SEP-94 11:44:07 500 PROCESS	11.33	1.41	0.9	3	1.011	82	100	89	2.72	3.20	42	17	116	90	0.44	16.4	11.4	60	0.597	1.143	1.140	1.139	1.130	0.096	0.080	0.101	0.125	0.000
27-SEP-94 11:45:07 500 PROCESS	11.38	1.42	0.9	3	1.011	82	101	88	2.70	2.71	42	17	115	90	0.42	17.6	11.3	60	0.602	1.136	1.140	1.144	1.150	0.099	0.087	0.095	0.122	0.000
27-SEP-94 11:46:07 500 PROCESS	11.35	1.42	0.9	3	1.007	82	100	88	2.69	2.32	42	17	114	90	0.44	10.9	11.4	60	0.593	1.142	1.147	1.130	1.140	0.100	0.084	0.105	0.117	0.000
27-SEP-94 11:47:07 500 PROCESS	11.33	1.41	1.0	3	1.005	82	101	80	2.44	5.30	42	17	116	90	0.44	15.0	12.6	60	0.594	1.139	1.140	1.130	1.140	0.110	0.089	0.106	0.127	0.000
27-SEP-94 11:48:07 500 PROCESS	11.28	1.41	1.0	3	1.004	83	101	89	2.71	5.10	41	17	117	90	0.42	10.0	13.9	59	0.593	1.140	1.144	1.139	1.150	0.105	0.085	0.095	0.129	0.000
27-SEP-94 11:49:07 500 PROCESS	11.32	1.41	1.0	4	1.002	80	100	87	2.40	4.96	41	19	118	91	0.42	12.5	16.3	60	0.590	1.144	1.150	1.133	1.150	0.105	0.085	0.092	0.125	0.000
27-SEP-94 11:50:07 500 PROCESS	11.35	1.42	1.0	3	1.001	80	101	87	2.70	4.55	41	19	118	90	0.44	12.5	16.4	60	0.593	1.140	1.149	1.130	1.140	0.099	0.076	0.094	0.125	0.000
27-SEP-94 11:51:07 500 PROCESS	11.37	1.42	1.0	3	1.797	80	101	86	2.40	4.10	42	19	119	90	0.44	15.1	16.4	60	0.592	1.153	1.142	1.143	1.144	0.100	0.080	0.105	0.121	0.000
27-SEP-94 11:52:07 500 PROCESS	11.34	1.41	1.0	3	1.795	80	101	86	2.73	3.40	41	19	119	91	0.45	15.0	16.4	60	0.601	1.140	1.136	1.137	1.144	0.103	0.083	0.104	0.125	0.000
27-SEP-94 11:53:07 500 PROCESS	11.39	1.42	1.1	2	1.010	81	101	87	2.70	3.00	42	18	116	90	0.46	17.5	15.2	60	0.593	1.143	1.149	1.136	1.154	0.106	0.087	0.099	0.132	0.000
27-SEP-94 11:54:07 500 PROCESS	11.31	1.41	1.1	3	1.000	83	100	89	2.70	2.54	42	16	115	91	0.42	17.5	10.0	60	0.597	1.142	1.142	1.137	1.149	0.100	0.085	0.104	0.121	0.000
27-SEP-94 11:55:07 500 PROCESS	11.37	1.42	1.1	4	1.007	82	101	89	2.72	5.56	42	17	116	91	0.41	12.5	12.7	60	0.596	1.130	1.136	1.143	1.150	0.098	0.082	0.098	0.120	0.000
27-SEP-94 11:56:07 500 PROCESS	11.36	1.42	1.1	4	1.004	80	101	86	2.40	5.22	41	19	117	91	0.44	12.6	14.0	60	0.596	1.143	1.144	1.143	1.145	0.110	0.079	0.098	0.122	0.000
27-SEP-94 11:57:07 500 PROCESS	11.37	1.42	1.1	3	1.001	80	101	87	2.67	4.75	42	19	118	92	0.42	12.4	15.1	60	0.601	1.139	1.140	1.139	1.145	0.099	0.076	0.095	0.120	0.000
27-SEP-94 11:58:06 500 PROCESS	11.31	1.41	1.1	3	1.798	81	101	87	2.71	4.38	41	19	118	91	0.41	12.6	16.4	60	0.597	1.143	1.145	1.144	1.142	0.109	0.080	0.094	0.125	0.000
27-SEP-94 11:59:07 500 PROCESS	11.23	1.40	1.2	3	1.796	80	101	87	2.71	3.91	41	18	119	91	0.40	12.5	17.7	60	0.593	1.147	1.145	1.140	1.140	0.105	0.083	0.090	0.125	0.000
27-SEP-94 12:00:07 500 PROCESS	11.40	1.42	1.2	2	1.798	83	101	88	2.65	3.55	41	17	119	91	0.45	11.3	10.1	60	0.597	1.150	1.145	1.130	1.149	0.099	0.083	0.093	0.133	0.000
27-SEP-94 12:01:07 500 PROCESS	11.40	1.42	1.2	3	1.797	83	101	89	2.71	4.73	42	16	118	92	0.42	12.6	13.9	60	0.601	1.140	1.145	1.139	1.143	0.109	0.084	0.093	0.131	0.000
27-SEP-94 12:02:06 500 PROCESS	11.35	1.42	1.2	4	1.796	80	101	87	2.75	4.30	41	18	118	91	0.46	13.0	11.3	59	0.590	1.137	1.143	1.139	1.143	0.099	0.081	0.080	0.132	0.000
27-SEP-94 12:03:07 500 PROCESS	11.32	1.41	1.2	4	1.793	79	100	86	2.67	3.77	41	19	119	91	0.40	15.1	11.3	60	0.598	1.140	1.145	1.140	1.147	0.106	0.085	0.096	0.120	0.000
27-SEP-94 12:04:06 500 PROCESS	11.34	1.41	1.2	3	1.000	80	101	86	2.70	3.34	42	19	116	92	0.41	16.4	16.5	60	0.596	1.140	1.139	1.133	1.145	0.101	0.074	0.092	0.122	0.000
27-SEP-94 12:05:07 500 PROCESS	11.34	1.41	1.2	3	1.000	80	101	87	2.73	2.02	41	19	115	91	0.42	17.7	11.5	59	0.597	1.140	1.136	1.134	1.140	0.096	0.084	0.093	0.125	0.000
27-SEP-94 12:06:06 500 PROCESS	11.30	1.42	1.3	3	1.003	81	101	87	2.73	2.39	41	18	117	92	0.44	10.9	11.4	60	0.595	1.140	1.142	1.137	1.144	0.104	0.089	0.101	0.132	0.000
27-SEP-94 12:07:06 500 PROCESS	11.34	1.41	1.3	2	1.003	83	101	89	2.40	5.50	41	17	117	92	0.39	15.2	12.5	60	0.592	1.144	1.134	1.137	1.145	0.109	0.083	0.111	0.134	0.000
27-SEP-94 12:08:07 500 PROCESS	11.40	1.42	1.3	3	1.002	82	101	89	2.77	5.25	41	17	117	92	0.43	10.1	13.9	60	0.591	1.147	1.149	1.134	1.139	0.104	0.089	0.096	0.122	0.000
27-SEP-94 12:09:06 500 PROCESS	11.33	1.41	1.3	4	1.000	81	102	87	2.00	5.06	41	19	117	92	0.46	12.6	15.2	60	0.592	1.150	1.143	1.134	1.139	0.107	0.087	0.100	0.110	0.000
27-SEP-94 12:10:06 500 PROCESS	11.30	1.41	1.3	4	1.796	80	101	87	2.71	4.00	41	19	118	92	0.42	12.5	15.1	60	0.600	1.142	1.136	1.142	1.131	0.109	0.081	0.087	0.126	0.000
27-SEP-94 12:11:06 500 PROCESS	11.37	1.42	1.3	3	1.795	80	102	87	2.74	4.30	41	19	119	92	0.39	15.1	15.1	60	0.597	1.145	1.150	1.136	1.142	0.103	0.087	0.090	0.123	0.000
27-SEP-94 12:12:06 500 PROCESS	11.35	1.42	1.4	3	1.796	80	100	87	2.70	3.77	41	19	119	92	0.40	15.0	13.2	60	0.598	1.137	1.130	1.130	1.149	0.101	0.085	0.104	0.122	0.000
27-SEP-94 12:13:06 500 PROCESS	11.39	1.42	1.4	2	1.009	80	100	87	2.72	3.27	41	19	115	92	0.42	17.6	15.1	60	0.595	1.145	1.137	1.137	1.142	0.105	0.082	0.100	0.127	0.000
27-SEP-94 12:14:06 500 PROCESS	11.34	1.41	1.4	3	1.007	83	101	89	2.73	2.74	41	14	113	92	0.43	17.6	11.4	60	0.593	1.142	1.136	1.140	1.145	0.090	0.083	0.099	0.131	0.000
27-SEP-94 12:15:06 500 PROCESS	11.36	1.42	1.4	3	1.003	83	101	89	2.77	5.59	42	16	114	93	0.43	14.0	12.6	60	0.591	1.134	1.132	1.134	1.142	0.105	0.083	0.103	0.127	0.000
27-SEP-94 12:16:06 500 PROCESS	11.33	1.41	1.4	4	1.002	81	101	88	2.79	5.31	41	18	117	93	0.45	12.5	13.9	60	0.592	1.143	1.136	1.103	1.142	0.107	0.081	0.095	0.126	0.000
27-SEP-94 12:17:06 500 PROCESS	11.37	1.42	1.4	3	1.798	80	101	87	2.71	4.03	41	19	118	93	0.39	12.5	15.0	60	0.590	1.143	1.140	1.145	1.144	0.112	0.080	0.101	0.123	0.000
27-SEP-94 12:18:06 500 PROCESS	11.40	1.42	1.4	3	1.790	81	101	87	2.71	4.54	42	18	118	93	0.45	12.6	16.4	60	0.596	1.133	1.137	1.144	1.139	0.116	0.082	0.096	0.115	0.000
27-SEP-94 12:19:06 500 PROCESS	11.42	1.42	1.5	3	1.794	82	101	89	2.69	4.23	41	17	119	93	0.44	12.4	17.6	60	0.589	1.143	1.149	1.136	1.147	0.107	0.079	0.095	0.131	0.000
27-SEP-94 12:20:06 500 PROCESS	11.39	1.42	1.5	2	1.793	83	101	89	2.71	3.96	41	16	119	95	0.41	11.3	17.4	60	0.590	1.140	1.130	1.142	1.145	0.111	0.084	0.094	0.127	0.000
27-SEP-94 12:21:06 500 PROCESS	11.39	1.42	1.5	3	1.795	83	101	89	2.75	4.05	41	17	119	93	0.45	12.6	13.9	60	0.598	1.130	1.153	1.137	1.142	0.115	0.085	0.107	0.127	0.000
27-SEP-94 12:22:06 500 PROCESS	11.39	1.42	1.5	4	1.794	82	101	89	2.72	4.93	41	17	119	93	0.42	15.0	11.3	60	0.590	1.139	1.136	1.138	1.144	0.105	0.089	0.090	0.131	0.000
27-SEP-94 12:23:06 500 PROCESS	11.31	1.41	1.5	4	1.790	81	101	87	2.77	5.47	41	19	119	93	0.46	16.4	12.6	60	0.596	1.130	1.140	1.130	1.143	0.107	0.082	0.103	0.122	0.000
27-SEP-94 12:24:06 500 PROCESS	11.37	1.42	1.5	3	1.004	80	101	87	2.79	5.39	41	19	116	93	0.44	16.4	13.9	60	0.585	1.138	1.137	1.142	1.149	0.110	0.085	0.098	0.123	0.000
27-SEP-94 12:25:06 500 PROCESS	11.36	1.42	1.6	3	1.009	81	101	87	2.73	5.00	41	18	114	93	0.41	16.4	15.2	60	0.595	1.145	1.145	1.139	1.150	0.101	0.084	0.092	0.126	0.000
27-SEP-94 12:26:06 500 PROCESS	11.37	1.42	1.6	2	1.002	83	101	89	2.40	4.57	41	17	116	93	0.42	14.4	16.0	60	0.592	1.145	1.144	1.138	1.144	0.110	0.090	0.109	0.131	0.000
27-SEP-94 12:27:06 500 PROCESS	11.42	1.42	1.6	3	1.000	83	101	89	2.70	4.05	41	16	117	93	0.40	12.6	17.6	60	0.598	1.149	1.143	1.132	1.145	0.103	0.083	0.101	0.126	0.000
27-SEP-94 12:28:06 500 PROCESS	11.37	1.42	1.6	3	1.001	83	101	89	2.74	5.11	41	17	117	93	0.42	12.5	15.2	60	0.591	1.144	1.130	1.130	1.143	0.107	0.089	0.105	0.125	0.000
27-SEP-94 12:29:06 500 PROCESS	11.36	1.42	1.6	4	1.794	81	101	87	2.78	4.73	41	19	118	94	0.44	13.9	13.9	60	0.595	1.139	1.136	1.130	1.155	0.107	0.083	0.059	0.123	0.000
27-SEP-94 12:30:06 500 PROCESS	11.36	1.42	1.6	3	1.794	80	101	87	2.76	4.20	41	19	118	94	0.40	15.1	13.9	60	0.602	1.140	1.107	1.136	1.140	0.110	0.072	0.094	0.127	0.000
27-SEP-94 12:31:06 500 PROCESS	11.39	1.42	1.6	3	1.792	80	101	87	2.82	3.80	41	19	119	93	0.43	15.1	13.9	60	0.591	1.143	1.147	1.131	1.147	0.107	0.084	0.090	0.125	0.000
27-SEP-94 12:32:06 500 PROCESS	11.39	1.42	1.7	3	1.791	80	101	87	2.90	3.32	41	19	119	93	0.40	17.5	13.9	50	0.592	1.139	1.120	1.132	1.140	0.099	0.083	0.101	0.120	0.000

27-SEP-94 12:35:06 500 PROCESS	11.37	1.42	1.7	3	1.801	82	101	90	2.76	5.34	61	17	116	94	0.41	12.6	13.9	60	0.593	1.142	1.138	1.144	1.1[illegible]	0.112	0.088	0.104	0.137	0.000
27-SEP-94 12:36:06 500 PROCESS	11.38	1.42	1.7	4	1.797	81	101	87	2.84	5.09	61	19	117	94	0.45	11.4	15.1	60	0.590	1.144	1.137	1.142	1.145	0.112	0.082	0.095	0.117	0.000
27-SEP-94 12:37:06 500 PROCESS	11.37	1.42	1.7	3	1.794	82	101	89	2.78	4.79	61	17	118	94	0.38	11.3	16.4	60	0.596	1.143	1.137	1.137	1.139	0.108	0.079	0.110	0.120	0.000
27-SEP-94 12:38:06 500 PROCESS	11.37	1.42	1.8	3	1.792	83	101	89	2.77	4.32	61	17	119	94	0.41	11.3	17.7	60	0.593	1.142	1.145	1.138	1.148	0.114	0.082	0.099	0.126	0.000
27-SEP-94 12:39:06 500 PROCESS	11.33	1.41	1.8	3	1.790	83	101	89	2.82	3.85	61	17	119	94	0.43	11.3	18.9	60	0.590	1.140	1.130	1.142	1.139	0.105	0.089	0.094	0.127	0.000
27-SEP-94 12:40:06 500 PROCESS	11.38	1.42	1.8	2	1.792	83	101	89	2.83	5.17	61	17	119	94	0.43	12.6	16.4	60	0.593	1.143	1.130	1.133	1.149	0.114	0.087	0.103	0.127	0.000
27-SEP-94 12:41:06 500 PROCESS	11.37	1.42	1.8	3	1.793	83	101	89	2.77	4.76	61	17	119	94	0.43	13.8	12.7	60	0.595	1.144	1.143	1.139	1.140	0.105	0.085	0.099	0.129	0.000
27-SEP-94 12:42:06 500 PROCESS	11.41	1.42	1.8	4	1.792	82	101	88	2.89	5.45	61	18	119	94	0.46	15.1	11.3	60	0.591	1.138	1.137	1.139	1.140	0.105	0.083	0.099	0.126	0.000
27-SEP-94 12:43:06 500 PROCESS	11.29	1.41	1.8	4	1.793	80	101	87	2.81	5.50	61	19	118	94	0.46	15.2	12.6	60	0.593	1.144	1.143	1.139	1.142	0.105	0.081	0.100	0.127	0.000
27-SEP-94 12:44:06 500 PROCESS	11.39	1.42	1.8	3	1.805	80	101	87	2.86	5.29	61	19	115	94	0.42	15.1	13.8	60	0.589	1.140	1.144	1.140	1.147	0.106	0.081	0.095	0.129	0.000
27-SEP-94 12:45:06 500 PROCESS	11.35	1.42	1.9	3	1.799	81	101	87	2.91	4.94	61	19	116	94	0.41	15.1	15.1	60	0.596	1.143	1.142	1.133	1.145	0.105	0.083	0.107	0.132	0.000
27-SEP-94 12:46:06 500 PROCESS	11.32	1.41	1.9	3	1.795	80	101	87	2.89	4.68	61	19	117	94	0.42	15.2	17.4	60	0.596	1.142	1.136	1.136	1.151	0.110	0.070	0.100	0.122	0.000
27-SEP-94 12:47:06 500 PROCESS	11.30	1.41	1.9	2	1.797	83	101	89	2.82	4.31	61	17	117	94	0.39	12.5	17.7	60	0.592	1.136	1.139	1.130	1.143	0.105	0.073	0.099	0.122	0.000
27-SEP-94 12:48:06 500 PROCESS	11.32	1.41	1.9	3	1.794	83	101	89	2.77	5.14	61	16	117	94	0.44	12.6	15.8	60	0.595	1.137	1.139	1.145	1.147	0.110	0.085	0.104	0.132	0.000
27-SEP-94 12:49:05 500 PROCESS	11.39	1.42	1.9	4	1.794	81	101	89	2.91	4.02	61	18	117	94	0.40	13.8	12.7	60	0.593	1.143	1.130	1.131	1.139	0.110	0.082	0.098	0.115	0.000
27-SEP-94 12:50:05 500 PROCESS	11.42	1.42	1.9	4	1.793	80	101	87	2.89	4.35	61	19	118	95	0.41	15.1	12.6	60	0.587	1.145	1.134	1.134	1.142	0.105	0.082	0.100	0.129	0.000
27-SEP-94 12:51:06 500 PROCESS	11.34	1.41	1.9	3	1.789	80	101	87	2.90	3.85	61	19	119	94	0.41	15.1	12.6	60	0.592	1.144	1.142	1.130	1.140	0.110	0.074	0.096	0.120	0.000
27-SEP-94 12:52:06 500 PROCESS	11.40	1.42	2.0	3	1.788	80	101	87	2.90	3.36	61	19	119	95	0.42	17.7	12.7	60	0.593	1.134	1.144	1.133	1.151	0.099	0.081	0.100	0.129	0.000
27-SEP-94 12:53:06 500 PROCESS	11.34	1.41	2.0	2	1.804	81	101	88	2.82	2.48	61	18	116	95	0.41	18.9	12.7	60	0.593	1.139	1.138	1.137	1.143	0.106	0.078	0.099	0.131	0.000
27-SEP-94 12:54:05 500 PROCESS	11.37	1.42	2.0	3	1.801	83	101	89	2.83	5.54	61	16	115	94	0.44	15.1	12.5	60	0.592	1.137	1.140	1.136	1.147	0.112	0.087	0.108	0.133	0.000
27-SEP-94 12:55:05 500 PROCESS	11.38	1.42	2.0	3	1.799	83	101	90	2.84	5.36	61	17	114	95	0.42	12.5	13.9	60	0.590	1.145	1.138	1.137	1.153	0.106	0.083	0.092	0.127	0.000
27-SEP-94 12:56:05 500 PROCESS	11.38	1.42	2.0	4	1.794	81	101	89	2.91	5.29	61	18	117	95	0.42	11.2	15.1	60	0.592	1.140	1.147	1.138	1.148	0.110	0.084	0.093	0.121	0.000
27-SEP-94 12:57:05 500 PROCESS	11.41	1.42	2.0	4	1.791	80	101	87	2.89	4.96	61	19	118	95	0.45	12.5	15.0	60	0.589	1.140	1.137	1.139	1.138	0.111	0.089	0.094	0.122	0.000
27-SEP-94 12:58:05 500 PROCESS	11.31	1.41	2.1	3	1.792	80	101	87	2.90	4.73	61	19	118	94	0.42	13.9	15.2	60	0.589	1.142	1.144	1.140	1.149	0.096	0.082	0.096	0.128	0.000
27-SEP-94 12:59:05 500 PROCESS	11.35	1.42	2.1	3	1.789	80	101	86	2.93	4.28	61	19	119	95	0.40	15.2	15.1	60	0.592	1.134	1.143	1.139	1.145	0.103	0.085	0.099	0.132	0.000
27-SEP-94 13:00:05 500 PROCESS	11.41	1.42	2.1	2	1.787	81	100	87	2.84	3.45	61	18	119	95	0.45	16.4	15.2	60	0.591	1.147	1.143	1.139	1.143	0.114	0.090	0.095	0.132	0.000
27-SEP-94 13:01:05 500 PROCESS	11.34	1.41	2.1	3	1.801	83	101	89	2.87	3.26	61	16	115	95	0.44	17.4	11.5	60	0.597	1.139	1.139	1.138	1.149	0.106	0.079	0.098	0.123	0.000
27-SEP-94 13:02:05 500 PROCESS	11.34	1.42	2.1	3	1.801	82	101	89	2.93	5.67	61	18	115	95	0.42	13.9	12.6	60	0.592	1.144	1.140	1.132	1.145	0.111	0.070	0.098	0.129	0.000
27-SEP-94 13:03:05 500 PROCESS	11.37	1.42	2.1	4	1.797	80	101	88	2.91	5.44	61	19	116	95	0.40	12.6	13.8	60	0.592	1.139	1.139	1.136	1.140	0.101	0.083	0.089	0.133	0.000
27-SEP-94 13:04:05 500 PROCESS	11.36	1.42	2.2	3	1.794	81	101	87	2.91	5.10	61	19	118	95	0.40	12.4	15.1	60	0.597	1.140	1.140	1.129	1.140	0.109	0.070	0.098	0.118	0.000
27-SEP-94 13:05:05 500 PROCESS	11.38	1.42	2.2	3	1.793	81	101	88	2.88	4.07	61	18	118	95	0.41	12.6	16.4	60	0.596	1.139	1.150	1.129	1.143	0.101	0.090	0.095	0.122	0.000
27-SEP-94 13:06:05 500 PROCESS	11.37	1.42	2.2	3	1.789	82	101	89	2.90	4.21	61	17	119	95	0.42	12.5	17.7	60	0.596	1.145	1.139	1.134	1.148	0.115	0.093	0.101	0.126	0.000
27-SEP-94 13:07:05 500 PROCESS	11.37	1.42	2.2	2	1.792	84	101	90	2.84	4.85	61	17	119	95	0.42	11.3	17.6	60	0.589	1.142	1.138	1.132	1.145	0.114	0.092	0.107	0.144	0.000
27-SEP-94 13:08:05 500 PROCESS	11.36	1.42	2.2	3	1.790	83	101	90	2.93	5.02	61	17	119	96	0.42	12.6	13.9	60	0.590	1.143	1.143	1.11[illegible]	1.150	0.112	0.083	0.079	0.122	0.0[illegible]
27-SEP-94 13:09:05 500 PROCESS	11.38	1.41	2.2	4	1.789	82	100	90	2.91	5.58	61	17	119	95	0.39	16.4	11.4	60	0.591	1.14[illegible]	1.136	1.133	1.14[illegible]	0.118	0.087	0.094	0.132	0.000

DATE: 27-SEP-94 LFSPE OXYGEN GENERATION TIME: 13:09:5[illegible]
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.36 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 2.2 HOURS LAST 406 LEVEL: 4
C6746-1 -2 % LEL H2V740-1 0.589 V VLT906-1 1.809 V
C6746-2 -0 % LEL H2V740-2 1.142 V VLT906-2 1.787 V
C6746-3 -0 % LEL H2V740-3 1.145 V VLT906-3 1.761 V

27-SEP-94 13:10:05 500 PROCESS	11.36	1.41	2.2	4	1.786	81	101	88	2.91	5.45	61	19	119	95	0.42	15.5	12.6	60	0.593	1.144	1.134	1.136	1.143	0.105	0.090	0.101	0.117	0.000

DATE: 27-SEP-94 LFSPE OXYGEN GENERATION TIME: 13:10:12
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 11.36 LB/DAY HYDROGEN PRODUCTION RATE: 1.41 LB/DAY
OPERATING TIME: 2.3 HOURS LAST 406 LEVEL: 4
C6746-1 -1 % LEL H2V740-1 0.592 V VLT906-1 1.809 V
C6746-2 -0 % LEL H2V740-2 1.144 V VLT906-2 1.787 V
C6746-3 -0 % LEL H2V740-3 1.142 V VLT906-3 1.757 V
C6746-4 -1 % LEL H2V740-4 1.142 V VLT906-4 1.764 V
C6755 0.0 UMHO/CM H2V900 1.143 V VLT906-5 1.752 V
I745 60 AMPS H2PAVG 1.032 V VLT906-6 1.763 V
VLT906-7 1.805 V
I740-1 0.109 A VLT906-8 1.853 V
I740-2 0.907 A VLT906-9 1.775 V
I740-3 0.096 A VLT906-10 1.772 V
I740-4 0.120 A VLT906-11 1.862 V
I900 0.090 A VLT906-12 1.825 V

ADVICE:

[F1] PAGE   [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE   [F10] MODIFY OPER
[F2] SUBSYSTEM PARA   [F5] MANUAL OPER   [F8] DATA LOGGING
[F3] MODE SELECTION   [F6] VIEW OPER   [F9] EXIT   PAGE 2 OF 2

27-SEP-94 13:11:05 500 PROCESS	11.37	1.42	2.3	3	1.000	00	101	87	2.93	5.47	61	19	115	95	0.42	16.4	13.9	60	0.392	1.140	1.147	1.140	1.139	0.111	0.083	0.094	0.121	0.000
27-SEP-94 13:12:05 500 PROCESS	14.10	1.77	2.3	3	1.077	02	101	89	2.97	4.47	58	18	115	96	0.41	16.4	15.2	79	0.395	1.140	1.147	1.134	1.142	0.109	0.089	0.106	0.127	0.000
27-SEP-94 13:13:05 500 PROCESS	15.03	1.08	2.3	3	1.076	03	101	90	2.90	4.95	58	17	119	96	0.41	16.3	17.5	79	0.393	1.130	1.132	1.129	1.140	0.126	0.096	0.117	0.133	6.000
27-SEP-94 13:14:05 500 PROCESS	14.97	1.07	2.3	2	1.080	02	101	89	2.90	4.96	58	17	118	96	0.42	15.1	18.7	79	0.396	1.133	1.122	1.120	1.147	0.133	0.096	0.121	0.136	0.000
27-SEP-94 13:15:05 500 PROCESS	14.90	1.07	2.3	3	1.094	02	101	89	2.93	4.41	59	17	116	96	0.40	11.3	20.1	79	0.402	1.134	1.128	1.125	1.145	0.127	0.094	0.112	0.140	0.000
27-SEP-94 13:16:05 500 PROCESS	15.05	1.08	2.3	3	1.901	02	101	90	2.86	5.21	59	17	115	96	0.35	12.6	15.1	79	0.402	1.139	1.134	1.122	1.142	0.128	0.105	0.120	0.150	0.000
27-SEP-94 13:17:05 500 PROCESS	15.00	1.07	2.4	3	1.904	02	101	89	2.92	4.90	59	17	115	96	0.39	15.1	11.3	79	0.401	1.134	1.131	1.131	1.137	0.125	0.103	0.121	0.149	0.000
27-SEP-94 13:18:05 500 PROCESS	14.93	1.06	2.4	4	1.094	02	102	88	2.98	5.39	59	18	117	96	0.46	15.1	12.7	79	0.407	1.136	1.131	1.128	1.145	0.139	0.109	0.120	0.145	0.000
27-SEP-94 13:19:05 500 PROCESS	14.90	1.07	2.4	3	1.085	02	101	89	2.94	5.10	59	18	119	95	0.42	15.0	13.9	79	0.406	1.133	1.132	1.132	1.140	0.120	0.101	0.110	0.144	0.000

DATE: 27-SEP-94   LFSPE OXYGEN GENERATION   TIME: 13:19:47
MODE: ON   STATE: PROCESS   STATUS: NORMAL

OXYGEN PRODUCTION RATE: 15.02 LB/DAY   HYDROGEN PRODUCTION RATE: 1.07 LB/DAY
OPERATING TIME: 2.4 HOURS   LAST 406 LEVEL: 3

CG746-1	-2	% LEL	H2V760-1	0.403	V	VLT906-1	1.900	V
CG746-2	-1	% LEL	H2V760-2	1.131	V	VLT906-2	1.080	V
CG746-3	0	% LEL	H2V760-3	1.122	V	VLT906-3	1.042	V
CG746-4	-1	% LEL	H2V760-4	1.136	V	VLT906-4	1.041	V
CS755	0.0	UMHO/CM	H2V900	1.154	V	VLT906-5	1.010	V
I766	79	AMPS	H2PAVG	1.029	V	VLT906-6	1.034	V
						VLT906-7	1.930	V
			I760-1	0.136	A	VLT906-8	2.007	V
			I760-2	0.104	A	VLT906-9	1.060	V
			I760-3	0.125	A	VLT906-10	1.063	V
			I760-4	0.107	A	VLT906-11	1.999	V
			I900	0.000	A	VLT906-12	1.904	V
						CELLAVG	1.090	V

ANOMALY:
ADVICE:

[F1] PAGE   [F4] CONFIG CNTRL   [F7] ACKNOWLEDGE   [F10] MODIFY OPER
[F2] SUBSYSTEM PARA   [F5] MANUAL OPER   [F8] DATA LOGGING
[F3] MODE SELECTION   [F6] VIEW OPER   [F9] EXIT   PAGE 2 OF 2

27-SEP-94 13:20:05 500 PROCESS	15.02	1.07	2.4	3	1.093	02	101	89	2.97	5.12	59	18	118	96	0.43	15.0	15.1	79	0.411	1.140	1.129	1.128	1.147	0.134	0.088	0.120	0.153	0.000
27-SEP-94 13:21:05 500 PROCESS	14.99	1.07	2.4	2	1.097	03	101	90	2.96	4.93	59	17	117	95	0.41	15.1	17.7	79	0.417	1.136	1.127	1.126	1.145	0.131	0.101	0.120	0.151	0.000
27-SEP-94 13:22:05 500 PROCESS	15.00	1.07	2.4	3	1.905	02	101	88	3.01	4.75	59	18	116	95	0.03	11.3	18.9	79	0.412	1.137	1.129	1.128	1.105	0.127	0.101	0.127	0.140	0.000
27-SEP-94 13:23:05 500 PROCESS	14.94	1.06	2.5	3	1.907	03	101	90	2.96	5.19	59	18	115	96	0.40	12.4	15.1	79	0.413	1.132	1.132	1.129	1.130	0.126	0.104	0.125	0.146	0.000
27-SEP-94 13:24:05 500 PROCESS	15.02	1.07	2.5	4	1.094	03	101	90	2.96	4.01	59	17	114	96	0.43	15.1	11.3	79	0.413	1.132	1.128	1.126	1.140	0.133	0.103	0.125	0.139	0.000
27-SEP-94 13:25:05 500 PROCESS	15.01	1.07	2.5	4	1.087	01	101	89	2.96	4.70	58	18	119	96	0.39	14.4	11.3	79	0.412	1.131	1.120	1.127	1.145	0.132	0.109	0.120	0.144	0.000

DATE: 27-SEP-94   LFSPE OXYGEN GENERATION   TIME: 13:25:24
MODE: ON   STATE: PROCESS   STATUS: NORMAL

OXYGEN PRODUCTION RATE: 14.95 LB/DAY   HYDROGEN PRODUCTION RATE: 1.06 LB/DAY
OPERATING TIME: 2.5 HOURS   LAST 406 LEVEL: 3

CG746-1	-2	% LEL	H2V760-1	0.409	V	VLT906-1	1.093	V
CG746-2	-0	% LEL	H2V760-2	1.131	V	VLT906-2	1.063	V
CG746-3	-0	% LEL	H2V760-3	1.129	V	VLT906-3	1.036	V
CG746-4	-1	% LEL	H2V760-4	1.122	V	VLT906-4	1.020	V
CS755	0.0	UMHO/CM.	H2V900	1.149	V	VLT906-5	1.010	V
I766	79	AMPS	H2PAVG	1.020	V	VLT906-6	1.030	V
						VLT906-7	1.943	V
			I760-1	0.136	A	VLT906-8	1.900	V
			I760-2	0.109	A	VLT906-9	1.061	V
			I760-3	0.121	A	VLT906-10	1.051	V
			I760-4	0.137	A	VLT906-11	1.907	V
			I900	0.000	A	VLT906-12	1.990	V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

27-SEP-94 13:26:05 500 PROCESS	14.95	1.06	2.5	3	1.892	01	102	88	2.97	4.40	59	19	118	96	0.43	17.6	11.5	79	0.611	1.136	1.129	1.120	1.144	0.127	0.099	0.116	0.142	0.000
27-SEP-94 13:27:05 500 PROCESS	14.95	1.06	2.5	3	1.896	02	102	89	2.97	3.98	59	19	116	96	0.39	20.1	11.4	79	0.610	1.132	1.132	1.125	1.148	0.127	0.105	0.120	0.143	0.000
27-SEP-94 13:28:05 500 PROCESS	15.00	1.07	2.5	2	1.901	03	102	89	2.91	4.95	59	17	116	97	0.44	10.9	11.3	79	0.614	1.116	1.121	1.110	1.150	0.134	0.109	0.132	0.162	0.000
27-SEP-94 13:29:05 500 PROCESS	14.96	1.07	2.5	3	1.905	04	102	91	2.94	5.29	59	16	113	96	0.41	15.0	13.9	79	0.618	1.136	1.131	1.123	1.140	0.139	0.107	0.122	0.156	0.000
27-SEP-94 13:30:05 500 PROCESS	15.03	1.07	2.6	3	1.907	04	102	92	2.93	5.01	59	16	115	96	0.40	18.1	15.1	79	0.618	1.126	1.132	1.123	1.143	0.132	0.099	0.117	0.145	0.000
27-SEP-94 13:31:05 500 PROCESS	15.00	1.07	2.6	4	1.894	03	102	90	2.96	5.09	59	17	117	97	0.42	12.5	11.3	79	0.617	1.134	1.131	1.120	1.147	0.136	0.098	0.115	0.149	0.000
27-SEP-94 13:32:05 500 PROCESS	14.97	1.07	2.6	4	1.883	02	101	89	2.99	4.91	59	19	119	96	0.42	13.9	11.3	79	0.614	1.122	1.126	1.122	1.142	0.128	0.094	0.116	0.140	0.000

DATE: 27-SEP-94 LFSPE OXYGEN GENERATION TIME: 13:32:12
MODE: ON STATE: PROCESS STATUS: NORMAL

OXYGEN PRODUCTION RATE: 14.97 LB/DAY HYDROGEN PRODUCTION RATE: 1.07 LB/DAY
OPERATING TIME: 2.6 HOURS LAST 606 LEVEL: 4

CG746-1	-2 % LEL	H2V760-1	0.613 V	VLT906-1	1.906 V
CG746-2	-0 % LEL	H2V760-2	1.131 V	VLT906-2	1.057 V
CG746-3	-0 % LEL	H2V760-3	1.123 V	VLT906-3	1.039 V
CG746-4	-1 % LEL	H2V760-4	1.122 V	VLT906-4	1.036 V
CS755	0.0 UMHO/CM	H2V980	1.140 V	VLT906-5	1.012 V
I766	79 AMPS	H2PAVG	1.027 V	VLT906-6	1.023 V
				VLT906-7	1.939 V
		I760-1	0.120 A	VLT906-8	1.987 V
		I760-2	0.105 A	VLT906-9	1.053 V
		I760-3	0.116 A	VLT906-10	1.047 V
		I760-4	0.153 A	VLT906-11	1.984 V
		I980	0.000 A	VLT906-12	1.889 V
				CELLAVG	1.882 V

ANOMALY:
ADVICE:

(F1) PAGE (F4) CONFIG CNTRL (F7) ACKNOWLEDGE (F10) MODIFY OPER
(F2) SUBSYSTEM PARA (F5) MANUAL OPER (F8) DATA LOGGING
(F3) MODE SELECTION (F6) VIEW OPER (F9) EXIT PAGE 2 OF 2

27-SEP-94 13:33:05 500 PROCESS	15.01	1.07	2.6	3	1.896	02	102	88	2.97	4.04	59	19	117	97	0.42	15.2	11.4	79	0.617	1.126	1.120	1.121	1.140	0.129	0.100	0.120	0.140	0.000
27-SEP-94 13:34:04 500 PROCESS	14.93	1.06	2.6	3	1.897	02	102	89	3.02	4.39	59	19	117	97	0.41	17.6	11.3	79	0.617	1.132	1.125	1.122	1.143	0.136	0.100	0.117	0.149	0.000
27-SEP-94 13:35:05 500 PROCESS	15.02	1.07	2.6	2	1.902	04	102	90	3.00	5.34	59	17	116	97	0.43	14.4	11.4	79	0.614	1.121	1.122	1.114	1.140	0.140	0.112	0.115	0.160	0.000
27-SEP-94 13:36:05 500 PROCESS	14.99	1.07	2.7	3	1.906	05	102	91	2.94	5.25	59	16	113	97	0.43	12.6	14.0	79	0.618	1.118	1.125	1.116	1.140	0.134	0.109	0.121	0.156	0.000
27-SEP-94 13:37:05 500 PROCESS	15.02	1.07	2.7	3	1.905	05	101	92	2.90	5.15	59	16	115	97	0.40	11.3	12.5	79	0.625	1.123	1.123	1.127	1.153	0.102	0.104	0.127	0.140	0.000
27-SEP-94 13:38:04 500 PROCESS	14.97	1.07	2.7	4	1.890	03	102	90	3.06	5.20	59	18	118	97	0.44	15.1	11.4	79	0.620	1.122	1.121	1.120	1.136	0.140	0.105	0.122	0.145	0.000
27-SEP-94 13:39:05 500 PROCESS	14.98	1.07	2.7	4	1.883	02	101	89	2.93	5.01	59	18	120	97	0.42	15.0	12.7	79	0.615	1.123	1.126	1.129	1.144	0.131	0.101	0.122	0.147	0.000
27-SEP-94 13:40:05 500 PROCESS	15.01	1.07	2.7	3	1.894	02	102	89	2.98	4.96	59	19	117	97	0.41	15.1	15.2	79	0.619	1.126	1.125	1.129	1.137	0.131	0.107	0.122	0.149	0.000
27-SEP-94 13:41:04 500 PROCESS	14.99	1.07	2.7	3	1.897	02	102	89	3.01	4.94	59	18	116	97	0.42	15.0	16.4	79	0.620	1.121	1.129	1.125	1.149	0.129	0.099	0.121	0.144	0.000
27-SEP-94 13:42:04 500 PROCESS	14.95	1.06	2.7	2	1.904	04	102	90	3.02	4.83	59	17	115	97	0.42	12.5	17.6	79	0.617	1.125	1.125	1.127	1.140	0.120	0.100	0.120	0.140	0.000
27-SEP-94 13:43:04 500 PROCESS	14.96	1.07	2.8	3	1.907	04	102	91	2.93	5.29	59	16	115	97	0.42	12.5	16.5	79	0.610	1.122	1.111	1.117	1.103	0.155	0.107	0.121	0.131	0.000
27-SEP-94 13:44:04 500 PROCESS	15.00	1.07	2.8	3	1.895	05	102	92	2.94	4.90	59	16	116	97	0.43	13.9	12.5	79	0.615	1.129	1.127	1.123	1.105	0.136	0.105	0.117	0.147	0.000
27-SEP-94 13:45:03 500 PROCESS	15.01	1.07	2.8	4	1.889	04	102	91	2.95	5.35	59	17	118	98	0.41	15.0	11.3	79	0.613	1.120	1.115	1.109	1.147	0.263	0.109	0.122	0.143	0.000
27-SEP-94 13:46:04 500 PROCESS	14.96	1.07	2.8	4	1.889	02	102	89	3.01	5.25	59	19	118	97	0.42	15.1	13.8	79	0.617	1.127	1.122	1.116	1.149	0.131	0.100	0.121	0.130	0.000
27-SEP-94 13:47:04 500 PROCESS	15.02	1.07	2.8	3	1.894	02	102	89	3.00	5.01	59	19	117	97	0.38	15.1	15.2	79	0.617	1.126	1.123	1.121	1.151	0.140	0.103	0.125	0.142	0.000
27-SEP-94 13:48:04 500 PROCESS	14.99	1.07	2.8	3	1.895	02	102	89	3.05	4.96	59	19	116	98	0.42	15.1	16.4	79	0.620	1.128	1.126	1.121	1.165	0.142	0.103	0.118	0.144	0.000
27-SEP-94 13:49:04 500 PROCESS	15.00	1.07	2.9	2	1.903	05	102	90	2.96	4.85	59	17	116	97	0.47	13.8	17.7	79	0.615	1.125	1.126	1.127	1.150	0.136	0.106	0.125	0.133	0.000
27-SEP-94 13:50:04 500 PROCESS	14.99	1.07	2.9	3	1.906	05	102	92	3.01	5.19	59	16	115	97	0.39	12.5	17.4	79	0.624	1.121	1.118	1.114	1.153	0.379	0.106	0.117	0.133	0.000
27-SEP-94 13:51:04 500 PROCESS	15.03	1.08	2.9	3	1.859	04	102	91	2.98	4.93	59	17	116	98	0.42	13.8	13.8	79	0.615	1.123	1.117	1.120	1.140	0.136	0.100	0.131	0.130	0.000
27-SEP-94 13:52:04 500 PROCESS	14.98	1.07	2.9	4	1.889	04	102	91	2.98	4.74	59	17	118	97	0.41	14.9	11.3	79	0.619	1.121	1.122	1.121	1.140	0.127	0.106	0.132	0.105	0.000
27-SEP-94 13:53:04 500 PROCESS	14.97	1.07	2.9	4	1.887	04	102	90	3.01	5.12	59	17	119	97	0.45	15.1	12.7	79	0.619	1.123	1.123	1.121	1.150	0.130	0.107	0.127	0.147	0.000
27-SEP-94 13:54:04 500 PROCESS	14.98	1.07	2.9	3	1.894	02	102	89	3.07	5.11	59	17	117	97	0.43	15.2	15.2	79	0.617	1.127	1.127	1.126	1.134	0.140	0.103	0.127	0.144	0.000
27-SEP-94 13:55:04 500 PROCESS	15.01	1.07	2.9	3	1.896	02	102	89	3.07	4.95	59	18	116	97	0.41	15.1	16.4	79	0.619	1.125	1.124	1.118	1.149	0.130	0.099	0.122	0.140	0.000
27-SEP-94 13:56:34 500 PROCESS	15.01	1.07	2.9	2	1.903	04	102	91	3.05	4.70	59	17	115	98	0.42	12.5	17.6	79	0.623	1.127	1.127	1.127	1.140	0.130	0.100	0.123	0.147	0.000
27-SEP-94 13:57:34 500 PROCESS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.145	0.125	[illegible]	[illegible]	0.147	0.000

27-SEP-94 14:00:04 500 PROCESS	14.99	1.07	3.0	4	1.002	82	103	89	3.08	5.10	58	19	119	98	0.40	13.9	13.9	79	0.421	1.123	1.121	1.122	1.151	0.126	0.096	0.112	0.150	0.000
27-SEP-94 14:01:04 500 PROCESS	14.99	1.07	3.0	3	1.092	82	102	89	3.07	5.07	59	18	117	98	0.43	13.0	15.2	79	0.421	1.127	1.117	1.120	1.139	0.150	0.103	0.129	0.147	0.000
27-SEP-94 14:02:04 500 PROCESS	14.97	1.07	3.1	3	1.097	82	102	89	3.08	4.86	59	18	116	98	0.39	13.9	17.5	79	0.417	1.117	1.123	1.126	1.140	0.132	0.104	0.125	0.139	0.000
27-SEP-94 14:03:04 500 PROCESS	15.02	1.07	3.1	2	1.902	84	102	90	2.97	4.74	59	17	116	90	0.40	12.6	10.9	79	0.419	1.122	1.110	1.127	1.145	0.134	0.099	0.123	0.147	0.000
27-SEP-94 14:04:04 500 PROCESS	14.94	1.06	3.1	2	1.903	85	102	92	2.99	5.17	59	16	115	98	0.38	12.6	16.5	79	0.414	1.123	1.115	1.125	1.148	0.144	0.107	0.123	0.151	0.000
27-SEP-94 14:05:04 500 PROCESS	14.96	1.07	3.1	3	1.907	85	103	91	3.01	4.89	59	16	115	98	0.46	13.9	12.6	79	0.417	1.127	1.121	1.127	1.151	0.132	0.101	0.126	0.140	0.000
27-SEP-94 14:06:04 500 PROCESS	14.93	1.06	3.1	3	1.092	85	102	93	3.04	5.29	59	16	117	90	0.38	15.1	11.3	79	0.421	1.117	1.108	1.116	1.147	0.166	0.107	0.120	0.147	0.000
27-SEP-94 14:07:04 500 PROCESS	15.00	1.07	3.1	4	1.083	82	102	90	3.04	5.10	59	18	119	98	0.40	13.0	13.9	79	0.419	1.112	1.112	1.107	1.147	0.249	0.078	0.110	0.120	0.000
27-SEP-94 14:08:04 500 PROCESS	14.94	1.06	3.1	3	1.093	83	103	89	3.04	5.07	58	19	117	98	0.41	13.0	15.1	79	0.424	1.125	1.128	1.121	1.140	0.136	0.105	0.121	0.147	0.000
27-SEP-94 14:09:04 500 PROCESS	14.99	1.07	3.2	3	1.096	83	102	98	3.02	4.91	58	17	117	98	0.39	15.0	17.7	79	0.420	1.115	1.117	1.120	1.144	0.150	0.105	0.131	0.150	0.000
27-SEP-94 14:10:04 500 PROCESS	14.98	1.07	3.2	2	1.099	85	102	92	3.08	4.77	58	16	116	98	0.42	12.5	10.9	79	0.413	1.120	1.129	1.125	1.140	0.132	0.101	0.127	0.143	0.000
27-SEP-94 14:11:04 500 PROCESS	15.01	1.07	3.2	3	1.904	85	102	92	3.07	5.22	58	16	115	98	0.40	12.4	16.4	79	0.429	1.121	1.122	1.121	1.144	0.145	0.114	0.129	0.147	0.000
27-SEP-94 14:12:04 500 PROCESS	14.97	1.07	3.2	3	1.097	85	102	92	3.12	4.87	59	16	116	99	0.37	13.9	12.6	79	0.423	1.117	1.120	1.126	1.144	0.136	0.104	0.123	0.150	0.000
27-SEP-94 14:13:04 500 PROCESS	14.97	1.07	3.2	3	1.899	84	102	92	3.12	5.26	59	17	110	99	0.40	15.0	11.3	79	0.414	1.123	1.122	1.115	1.140	0.133	0.114	0.125	0.140	0.000
27-SEP-94 14:14:04 500 PROCESS	14.98	1.07	3.2	4	1.007	82	102	89	3.08	5.22	58	18	119	98	0.42	15.1	13.9	79	0.419	1.117	1.124	1.121	1.147	0.137	0.100	0.117	0.144	0.000
27-SEP-94 14:15:04 500 PROCESS	15.00	1.07	3.3	3	1.092	84	102	92	3.03	5.02	58	16	117	98	0.42	13.0	15.1	79	0.417	1.120	1.122	1.120	1.149	0.143	0.103	0.120	0.144	0.000
27-SEP-94 14:16:04 500 PROCESS	14.96	1.07	3.3	3	1.095	85	102	91	3.07	4.89	59	16	116	98	0.40	15.0	17.7	79	0.418	1.120	1.127	1.127	1.149	0.142	0.100	0.117	0.143	0.000
27-SEP-94 14:17:04 500 PROCESS	14.93	1.06	3.3	2	1.900	85	103	91	3.09	4.71	59	16	116	99	0.39	12.5	17.7	79	0.420	1.126	1.125	1.127	1.149	0.133	0.104	0.126	0.156	0.000
27-SEP-94 14:18:04 500 PROCESS	14.96	1.07	3.3	3	1.905	84	102	91	3.08	4.98	59	16	115	99	0.40	12.6	16.4	79	0.415	1.125	1.123	1.112	1.142	0.160	0.101	0.125	0.150	0.000
27-SEP-94 14:19:04 500 PROCESS	14.90	1.07	3.3	3	1.900	85	102	91	3.09	4.87	59	16	115	98	0.42	13.9	12.7	79	0.418	1.127	1.129	1.127	1.140	0.136	0.094	0.122	0.139	0.000
27-SEP-94 14:20:04 500 PROCESS	14.90	1.06	3.3	4	1.085	84	102	91	3.08	5.30	58	17	118	98	0.42	13.0	11.4	79	0.418	1.118	1.123	1.114	1.144	0.145	0.104	0.136	0.139	0.000
27-SEP-94 14:21:03 500 PROCESS	15.05	1.08	3.3	4	1.084	83	102	89	3.08	5.18	58	18	119	98	0.43	15.1	13.0	79	0.415	1.125	1.122	1.125	1.150	0.142	0.099	0.125	0.151	0.000
27-SEP-94 14:22:03 500 PROCESS	15.02	1.07	3.4	3	1.092	85	103	92	3.11	5.03	58	16	117	99	0.43	15.1	15.2	79	0.413	1.123	1.123	1.125	1.149	0.140	0.090	0.120	0.140	0.030
27-SEP-94 14:23:04 500 PROCESS	14.95	1.06	3.4	3	1.895	84	102	91	3.13	4.80	58	16	116	99	0.41	15.1	17.7	79	0.424	1.123	1.127	1.125	1.145	0.139	0.104	0.127	0.153	0.000
27-SEP-94 14:24:04 500 PROCESS	14.97	1.07	3.4	2	1.900	85	103	91	3.06	4.79	59	16	115	99	0.41	12.5	19.0	79	0.417	1.121	1.112	1.116	1.145	0.171	0.103	0.121	0.144	0.000
27-SEP-94 14:25:04 500 PROCESS	14.97	1.07	3.4	3	1.904	85	103	92	3.04	5.10	58	16	115	99	0.42	12.6	16.4	79	0.424	1.109	1.109	1.112	1.140	0.189	0.106	0.129	0.150	0.000
27-SEP-94 14:26:03 500 PROCESS	14.97	1.07	3.4	3	1.099	86	103	93	3.08	4.82	59	16	115	99	0.39	13.0	12.7	79	0.423	1.125	1.125	1.126	1.155	0.134	0.100	0.128	0.140	0.000
27-SEP-94 14:27:03 500 PROCESS	14.98	1.07	3.4	4	1.086	83	103	90	3.06	5.20	59	18	118	99	0.44	15.1	11.3	79	0.418	1.121	1.117	1.111	1.153	0.147	0.111	0.125	0.155	0.000
27-SEP-94 14:28:04 500 PROCESS	15.02	1.07	3.5	3	1.090	83	102	90	3.08	5.22	59	18	118	99	0.45	15.1	13.9	79	0.414	1.118	1.116	1.120	1.149	0.172	0.095	0.120	0.129	0.000
27-SEP-94 14:29:03 500 PROCESS	14.96	1.07	3.5	3	1.094	83	102	91	3.08	4.98	59	17	117	99	0.42	13.0	15.1	79	0.423	1.122	1.121	1.118	1.144	0.144	0.109	0.126	0.137	0.000
27-SEP-94 14:30:03 500 PROCESS	15.01	1.07	3.5	2	1.097	84	102	91	3.10	5.04	58	17	116	100	0.43	13.9	17.7	79	0.413	1.122	1.126	1.117	1.140	0.140	0.099	0.114	0.151	0.000
27-SEP-94 14:31:03 500 PROCESS	14.92	1.06	3.5	2	1.900	85	102	92	3.10	5.16	58	16	115	99	0.43	11.3	17.6	79	0.411	1.112	1.111	1.110	1.150	0.108	0.088	0.111	0.154	0.003
27-SEP-94 14:32:03 500 PROCESS	14.98	1.07	3.5	3	1.905	84	102	91	3.14	4.99	58	17	115	99	0.42	13.9	13.4	79	0.417	1.125	1.116	1.123	1.143	0.159	0.104	0.122	0.143	0.000
27-SEP-94 14:33:03 500 PROCESS	15.02	1.07	3.5	3	1.091	84	102	91	3.12	5.06	58	17	117	99	0.40	15.1	11.4	79	0.419	1.127	1.121	1.109	1.144	0.149	0.110	0.133	0.170	0.000
27-SEP-94 14:34:03 500 PROCESS	15.02	1.07	3.5	4	1.081	84	103	90	3.12	5.11	59	18	119	99	0.41	13.0	12.6	79	0.418	1.121	1.120	1.120	1.150	0.142	0.106	0.120	0.136	0.000
27-SEP-94 14:35:03 500 PROCESS	14.99	1.07	3.6	3	1.092	83	103	90	3.05	4.98	59	18	118	99	0.42	13.9	15.1	79	0.414	1.120	1.121	1.129	1.145	0.139	0.111	0.125	0.139	0.000
27-SEP-94 14:36:03 500 PROCESS	14.97	1.07	3.6	3	1.093	84	103	91	3.05	4.87	58	17	117	99	0.43	13.0	16.3	79	0.418	1.124	1.120	1.122	1.143	0.154	0.099	0.126	0.140	0.000
27-SEP-94 14:37:03 500 PROCESS	15.00	1.07	3.6	2	1.897	85	102	92	3.13	4.74	59	16	116	100	0.37	12.6	17.7	79	0.419	1.121	1.125	1.125	1.148	0.137	0.099	0.121	0.159	0.000
27-SEP-94 14:38:03 500 PROCESS	15.00	1.07	3.6	2	1.901	85	103	92	3.15	5.22	58	16	115	99	0.40	12.5	16.4	79	0.418	1.121	1.121	1.116	1.148	0.151	0.108	0.133	0.149	0.000
27-SEP-94 14:39:03 500 PROCESS	15.00	1.07	3.6	3	1.906	84	103	91	3.09	4.93	59	17	115	99	0.44	13.9	12.5	79	0.414	1.121	1.127	1.120	1.149	0.151	0.099	0.122	0.140	0.000
27-SEP-94 14:40:03 500 PROCESS	14.93	1.06	3.6	3	1.091	83	102	90	3.07	5.33	59	18	117	99	0.40	15.1	11.4	79	0.417	1.125	1.121	1.111	1.142	0.136	0.112	0.127	0.149	0.000
27-SEP-94 14:41:03 500 PROCESS	15.00	1.07	3.7	4	1.082	83	102	89	3.10	5.19	59	19	119	100	0.42	15.0	13.9	79	0.426	1.120	1.125	1.126	1.153	0.137	0.103	0.129	0.141	0.000
27-SEP-94 14:42:03 500 PROCESS	14.95	1.06	3.7	3	1.091	83	102	90	3.15	4.95	59	18	118	100	0.42	15.1	15.2	79	0.418	1.125	1.123	1.126	1.153	0.145	0.101	0.118	0.137	0.000
27-SEP-94 14:43:03 500 PROCESS	15.01	1.07	3.7	3	1.094	84	103	90	3.16	5.10	58	17	117	99	0.42	15.1	16.4	79	0.423	1.129	1.121	1.120	1.156	0.147	0.100	0.127	0.143	0.000
27-SEP-94 14:44:03 500 PROCESS	15.00	1.07	3.7	2	1.097	85	103	92	3.08	4.82	58	16	116	99	0.41	12.6	17.6	79	0.411	1.117	1.120	1.122	1.149	0.131	0.101	0.122	0.154	0.000
27-SEP-94 14:45:03 500 PROCESS	15.00	1.08	3.7	3	1.904	85	103	92	3.07	5.14	58	16	115	100	0.40	12.6	16.4	79	0.419	1.120	1.122	1.116	1.147	0.158	0.094	0.122	0.150	0.000
27-SEP-94 14:46:03 500 PROCESS	14.97	1.07	3.7	3	1.905	85	103	92	3.15	4.99	58	16	115	99	0.41	13.9	12.6	79	0.413	1.116	1.121	1.121	1.150	0.138	0.096	0.120	0.149	0.000
27-SEP-94 14:47:03 500 PROCESS	14.99	1.07	3.7	3	1.090	85	102	90	3.12	5.19	59	18	118	100	0.41	15.1	11.3	79	0.410	1.121	1.121	1.114	1.145	0.143	0.106	0.122	0.154	0.000
27-SEP-94 14:48:03 500 PROCESS	14.91	1.06	3.8	4	1.083	84	102	91	3.09	5.09	58	17	119	100	0.39	15.0	13.0	79	0.424	1.122	1.112	1.112	1.143	0.170	0.107	0.125	0.149	0.000
27-SEP-94 14:49:03 500 PROCESS	14.99	1.07	3.8	3	1.092	84	103	91	3.19	5.07	58	17	117	99	0.43	15.0	15.2	79	0.415	1.120	1.122	1.122	1.144	0.144	0.101	0.110	0.144	0.000
27-SEP-94 14:50:03 500 PROCESS	14.90	1.07	3.8	3	1.094	85	102	92	3.10	4.94	58	17	116	100	0.43	15.1	17.7	79	0.415	1.122	1.121	1.125	1.150	0.137	0.094	0.121	0.144	0.000
27-SEP-94 14:51:03 500 PROCESS	14.92	1.06	3.8	2	1.902	85	102	92	3.13	4.73	58	16	115	99	0.41	12.4	10.4	79	0.426	1.123	1.122	1.123	1.145	0.144	0.100	0.125	0.154	0.000
27-SEP-94 14:52:03 500 PROCESS	15.00	1.07	3.8	3	1.905	85	103	92	3.10	5.23	58	16	115	99	0.40	12.5	15.1	79	0.419	1.117	1.128	1.124	1.130	0.140	0.106	0.127	0.151	0.000
27-SEP-94 14:53:03 500 PROCESS	14.99	1.07	3.8	3	1.090	84	103	91	3.15	4.80	58	17	118	100	0.40	13.0	11.6	79	0.417	1.129	1.123	1.123	1.142	0.136	0.106	0.126	0.151	0.000
27-SEP-94 14:54:03 500 PROCESS	14.90	1.07	3.9	4	1.083	83	103	90	3.12	5.25	58	18	119	100	0.42	15.0	11.9	79	0.420	1.125	1.121	1.127	1.145	0.160	0.101	0.120	0.137	0.000
27-SEP-94 14:55:03 500 PROCESS	15.00	1.07	3.9	3	1.091	84	103	91	3.10	5.19	59	18	117	100	0.40	15.1	13.0	79	0.418	1.125	1.125	1.122	1.140	0.149	0.095	0.122	0.145	0.000
27-SEP-94 14:56:03 500 PROCESS	14.90	1.07	3.9	3	1.094	84	103	91	3.16	5.01	58	16	116	99	0.39	15.1	15.1	79	0.414	1.115	1.118	1.120	1.150	0.149	0.105	0.122	0.151	0.000
27-SEP-94 14:57:03 500 PROCESS	15.00	1.07	3.9	2	1.098	85	102	92	3.11	4.81	58	16	116	100	0.40	15.1	17.5	79	0.419	1.117	1.117	1.126	1.143	0.140	0.099	0.123	0.147	0.000
27-SEP-94 14:58:03 500 PROCESS	14.96	1.07	3.9	3	1.901	85	102	91	3.17	4.75	58	16	115	100	0.39	10.1	19.0	79	0.425	1.123	1.121	1.127	1.145	0.140	0.093	0.120	0.156	0.000
27-SEP-94 14:59:03 500 PROCESS	14.99	1.07	3.9	3	1.904	85	102	92	3.17	5.12	58	17	116	99	0.42	12.7	15.1	79	0.420	1.117	1.118	1.111	1.143	0.131	0.107	0.136	0.149	0.000
27-SEP-94 15:00:03 500 PROCESS	14.99	1.07	3.9	4	1.086	84	102	91	3.13	4.73	58	17	118	100	0.43	15.1	11.3	79	0.415	1.125	1.126	1.121	1.140	0.132	0.098	0.134	0.149	0.000
27-SEP-94 15:01:03 500 PROCESS	14.95	1.06	3.9	4	1.079	83	102	89	3.13	4.40	59	18	119	97	0.38	16.4	11.2	79	0.420	1.121	1.116	1.121	1.149	0.131	0.100	0.127	0.151	0.000
27-SEP-94 15:02:03 500 PROCESS	14.99	1.07	4.0	3	1.091	85	102	92	3.14	4.56	58	16	117	100	0.45	17.5	11.3	79	0.419	1.117	1.117	1.121	1.147	0.146	0.111	0.126	0.140	0.000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27-SEP-94 15:06:02 500 PROCESS	14.99	1.07	4.0	3	1.087	00	102	91	3.15	5.00	50	16	116	100	0.40	11.4	14.6	79	0.424	1.125	1.118	1.118	1.147	0.130	0.112	0.125	0.148	0.000
27-SEP-94 15:07:03 500 PROCESS	14.99	1.07	4.1	4	1.080	04	102	92	3.16	4.96	50	17	118	100	0.40	12.5	11.4	79	0.414	1.129	1.126	1.120	1.140	0.136	0.107	0.120	0.151	0.000
27-SEP-94 15:08:03 500 PROCESS	15.01	1.07	4.1	4	1.089	02	102	89	3.18	4.88	50	18	119	100	0.40	15.1	11.4	79	0.420	1.123	1.126	1.121	1.130	0.127	0.107	0.121	0.150	0.000
27-SEP-94 15:09:03 500 PROCESS	14.92	1.06	4.1	3	1.090	02	102	89	3.19	4.78	50	18	117	100	0.42	16.4	11.4	79	0.414	1.126	1.124	1.129	1.151	0.140	0.096	0.122	0.139	0.000
27-SEP-94 15:10:02 500 PROCESS	15.02	1.07	4.1	3	1.096	02	103	89	3.21	4.55	50	19	116	100	0.40	17.6	11.3	79	0.417	1.122	1.120	1.120	1.144	0.137	0.098	0.121	0.140	0.000
27-SEP-94 15:11:02 500 PROCESS	15.00	1.07	4.1	2	1.097	05	102	91	3.13	5.20	50	16	116	100	0.42	15.1	12.6	79	0.417	1.122	1.121	1.122	1.145	0.140	0.105	0.131	0.145	0.000
27-SEP-94 15:12:03 500 PROCESS	15.00	1.07	4.1	3	1.902	05	103	92	3.19	5.03	50	16	115	100	0.43	12.6	13.9	79	0.417	1.122	1.125	1.128	1.147	0.140	0.100	0.129	0.147	0.000
27-SEP-94 15:13:02 500 PROCESS	15.02	1.07	4.1	3	1.090	04	102	92	3.21	5.22	50	16	115	100	0.37	12.5	12.6	79	0.417	1.114	1.114	1.114	1.137	0.201	0.099	0.117	0.140	0.000
27-SEP-94 15:14:02 500 PROCESS	14.98	1.07	4.2	3	1.084	04	103	91	3.16	5.20	50	16	118	99	0.39	15.0	11.4	79	0.419	1.123	1.117	1.121	1.140	0.153	0.104	0.126	0.151	0.000
27-SEP-94 15:15:03 500 PROCESS	15.02	1.07	4.2	4	1.079	03	103	90	3.21	5.09	50	18	120	99	0.44	15.0	13.9	79	0.418	1.120	1.122	1.129	1.144	0.138	0.104	0.131	0.142	0.000
27-SEP-94 15:16:02 500 PROCESS	15.01	1.07	4.2	3	1.090	03	102	90	3.18	4.97	50	18	117	100	0.41	15.2	15.1	79	0.417	1.123	1.117	1.111	1.143	0.156	0.110	0.125	0.138	0.000
27-SEP-94 15:17:03 500 PROCESS	15.00	1.07	4.2	3	1.093	03	102	90	3.16	4.89	50	18	116	100	0.41	15.0	16.4	79	0.420	1.128	1.121	1.127	1.130	0.131	0.098	0.127	0.147	0.000
27-SEP-94 15:18:02 500 PROCESS	15.00	1.07	4.2	2	1.097	05	102	92	3.16	4.79	50	16	116	100	0.39	12.6	17.6	79	0.415	1.125	1.115	1.126	1.140	0.132	0.107	0.123	0.154	0.000
27-SEP-94 15:19:02 500 PROCESS	15.01	1.07	4.2	3	1.902	05	102	92	3.19	5.17	50	16	115	100	0.44	12.6	17.7	79	0.415	1.129	1.115	1.120	1.149	0.140	0.105	0.126	0.147	0.000
27-SEP-94 15:20:02 500 PROCESS	15.01	1.07	4.3	3	1.902	04	103	91	3.21	4.93	50	17	114	100	0.42	13.8	12.6	79	0.415	1.126	1.125	1.123	1.144	0.137	0.099	0.129	0.154	0.000
27-SEP-94 15:21:02 500 PROCESS	15.02	1.07	4.3	3	1.084	03	103	91	3.15	5.11	50	18	110	100	0.38	15.1	11.4	79	0.421	1.110	1.109	1.115	1.145	0.176	0.104	0.127	0.154	0.000
27-SEP-94 15:22:02 500 PROCESS	14.97	1.07	4.3	4	1.079	04	102	90	3.13	5.11	50	17	120	100	0.42	15.1	13.9	79	0.418	1.122	1.123	1.120	1.139	0.130	0.103	0.129	0.144	0.000
27-SEP-94 15:23:02 500 PROCESS	14.97	1.07	4.3	3	1.092	05	102	92	3.17	4.92	50	16	117	100	0.42	15.0	15.1	79	0.428	1.125	1.129	1.121	1.130	0.149	0.107	0.131	0.137	0.000
27-SEP-94 15:24:02 500 PROCESS	14.99	1.07	4.3	3	1.095	04	102	91	3.14	5.12	50	16	116	100	0.41	15.1	16.4	79	0.421	1.115	1.111	1.112	1.145	0.107	0.105	0.127	0.138	0.030
27-SEP-94 15:25:02 500 PROCESS	14.97	1.07	4.3	2	1.097	05	102	92	3.19	4.74	50	16	115	100	0.40	12.5	17.7	79	0.417	1.120	1.129	1.115	1.147	0.137	0.100	0.118	0.164	0.000
27-SEP-94 15:26:02 500 PROCESS	15.01	1.07	4.3	3	1.900	05	103	92	3.24	5.25	50	16	115	100	0.45	12.5	16.4	79	0.421	1.116	1.116	1.110	1.147	0.149	0.099	0.126	0.160	0.000
27-SEP-94 15:27:02 500 PROCESS	15.01	1.07	4.4	3	1.097	05	103	92	3.24	4.92	50	17	115	100	0.37	13.9	12.6	79	0.424	1.129	1.110	1.123	1.150	0.134	0.085	0.124	0.156	0.000
27-SEP-94 15:28:02 500 PROCESS	15.00	1.07	4.4	4	1.087	00	102	91	3.21	5.23	50	17	118	100	0.41	15.1	11.4	79	0.413	1.120	1.116	1.118	1.140	0.147	0.112	0.132	0.145	0.000
27-SEP-94 15:29:02 500 PROCESS	14.98	1.07	4.4	3	1.082	02	102	90	3.21	5.26	50	19	119	100	0.44	15.1	13.0	79	0.417	1.117	1.115	1.118	1.145	0.156	0.107	0.121	0.140	0.000
27-SEP-94 15:30:02 500 PROCESS	15.00	1.07	4.4	3	1.090	02	102	89	3.16	4.96	50	18	117	100	0.42	15.1	15.0	79	0.420	1.121	1.125	1.120	1.144	0.161	0.099	0.123	0.144	0.000
27-SEP-94 15:31:02 500 PROCESS	15.01	1.07	4.4	3	1.092	02	102	89	3.24	4.90	50	18	116	100	0.40	15.1	17.7	79	0.419	1.115	1.117	1.115	1.144	0.162	0.106	0.127	0.149	0.000
27-SEP-94 15:32:02 500 PROCESS	14.98	1.07	4.4	2	1.090	04	102	91	3.16	4.63	50	17	115	100	0.43	12.5	10.9	79	0.410	1.120	1.120	1.123	1.144	0.153	0.089	0.118	0.151	0.000
27-SEP-94 15:33:02 500 PROCESS	14.98	1.07	4.5	3	1.901	05	102	92	3.15	5.22	50	16	115	100	0.44	12.5	17.6	79	0.420	1.122	1.117	1.120	1.145	0.147	0.114	0.131	0.156	0.000
27-SEP-94 15:34:02 500 PROCESS	14.98	1.07	4.5	3	1.089	05	103	92	3.16	4.82	50	16	117	100	0.44	13.0	13.9	79	0.418	1.122	1.121	1.123	1.142	0.139	0.104	0.125	0.160	0.020
27-SEP-94 15:35:02 500 PROCESS	15.03	1.07	4.5	4	1.083	04	102	92	3.13	5.01	50	17	119	100	0.43	15.1	11.4	79	0.421	1.116	1.109	1.112	1.145	0.173	0.105	0.122	0.149	0.000
27-SEP-94 15:36:02 500 PROCESS	14.98	1.07	4.5	4	1.087	03	102	89	3.18	5.32	50	18	118	100	0.47	15.2	12.5	79	0.417	1.123	1.112	1.114	1.145	0.153	0.112	0.126	0.150	0.000
27-SEP-94 15:37:02 500 PROCESS	15.00	1.07	4.5	3	1.092	02	102	89	3.18	5.00	50	19	117	100	0.43	15.1	15.1	79	0.412	1.129	1.117	1.127	1.145	0.127	0.109	0.123	0.147	0.000
27-SEP-94 15:38:02 500 PROCESS	14.95	1.06	4.5	3	1.094	03	102	89	3.18	4.87	50	18	116	100	0.41	15.1	16.5	79	0.418	1.129	1.114	1.125	1.149	0.132	0.094	0.123	0.145	0.000
27-SEP-94 15:39:02 500 PROCESS	15.02	1.07	4.5	2	1.097	05	103	91	3.17	4.75	50	16	115	100	0.41	11.3	17.7	79	0.421	1.129	1.118	1.128	1.148	0.134	0.098	0.126	0.149	0.000
27-SEP-94 15:40:02 500 PROCESS	15.00	1.07	4.6	3	1.900	05	102	92	3.14	5.09	50	16	115	100	0.41	12.6	15.1	79	0.417	1.107	1.115	1.116	1.130	0.159	0.122	0.132	0.154	0.000
27-SEP-94 15:41:02 500 PROCESS	15.01	1.07	4.6	3	1.902	05	103	92	3.20	4.83	50	16	114	100	0.43	14.7	11.3	79	0.425	1.128	1.115	1.120	1.145	0.140	0.095	0.126	0.149	0.000
27-SEP-94 15:42:02 500 PROCESS	14.98	1.07	4.6	3	1.089	05	103	92	3.16	5.19	50	16	110	100	0.43	13.9	12.5	79	0.419	1.112	1.114	1.123	1.143	0.144	0.111	0.120	0.144	0.000
27-SEP-94 15:43:02 500 PROCESS	14.98	1.07	4.6	4	1.076	03	103	90	3.15	4.94	50	18	120	100	0.43	13.0	13.9	79	0.417	1.121	1.126	1.126	1.149	0.138	0.111	0.125	0.140	0.000
27-SEP-94 15:44:02 500 PROCESS	15.01	1.07	4.6	3	1.091	04	102	91	3.20	4.93	50	17	117	100	0.43	13.8	15.1	79	0.417	1.116	1.118	1.123	1.144	0.142	0.107	0.121	0.143	0.000
27-SEP-94 15:45:02 500 PROCESS	15.01	1.07	4.6	3	1.096	05	102	92	3.23	4.87	50	16	116	100	0.44	13.8	17.6	79	0.417	1.126	1.125	1.116	1.144	0.134	0.099	0.118	0.153	0.000
27-SEP-94 15:46:02 500 PROCESS	15.01	1.07	4.7	2	1.097	04	102	92	3.24	4.44	50	16	115	100	0.42	11.3	10.9	79	0.415	1.110	1.120	1.125	1.137	0.149	0.103	0.123	0.144	0.000
27-SEP-94 15:47:02 500 PROCESS	14.99	1.07	4.7	3	1.900	04	103	91	3.21	5.02	50	17	115	100	0.43	12.5	15.2	79	0.417	1.115	1.110	1.121	1.142	0.145	0.111	0.125	0.145	0.000
27-SEP-94 15:48:02 500 PROCESS	14.96	1.07	4.7	3	1.089	04	102	92	3.16	4.75	50	17	117	100	0.39	15.1	11.3	79	0.423	1.122	1.122	1.121	1.151	0.129	0.100	0.116	0.155	0.000
27-SEP-94 15:49:02 500 PROCESS	14.90	1.07	4.7	4	1.083	04	103	91	3.17	5.27	50	17	118	100	0.40	13.8	12.6	79	0.421	1.117	1.118	1.118	1.139	0.170	0.099	0.118	0.150	0.000
27-SEP-94 15:50:02 500 PROCESS	15.02	1.07	4.7	4	1.085	02	102	89	3.23	5.00	50	19	119	100	0.42	13.9	13.9	79	0.419	1.123	1.120	1.127	1.145	0.145	0.100	0.125	0.131	0.000
27-SEP-94 15:51:02 500 PROCESS	15.00	1.07	4.7	3	1.090	03	102	89	3.15	4.96	50	18	117	100	0.43	13.8	15.2	79	0.418	1.115	1.120	1.122	1.151	0.145	0.099	0.127	0.153	0.000
27-SEP-94 15:52:02 500 PROCESS	14.96	1.07	4.8	2	1.094	05	102	92	3.19	4.82	50	16	116	100	0.38	13.9	17.7	79	0.417	1.126	1.123	1.127	1.142	0.134	0.101	0.120	0.140	0.000
27-SEP-94 15:53:01 500 PROCESS	14.99	1.07	4.8	2	1.090	05	102	91	3.24	4.92	50	16	115	100	0.41	11.3	17.7	79	0.421	1.114	1.100	1.105	1.130	0.226	0.084	0.122	0.177	0.000
27-SEP-94 15:54:01 500 PROCESS	14.97	1.07	4.8	3	1.089	04	103	91	3.24	5.19	50	16	115	100	0.42	13.8	13.9	79	0.415	1.120	1.120	1.114	1.144	0.151	0.100	0.127	0.135	0.000
27-SEP-94 15:55:02 500 PROCESS	14.99	1.07	4.8	3	1.090	05	102	91	3.24	4.48	50	16	116	100	0.44	15.1	10.1	79	0.419	1.129	1.121	1.126	1.142	0.156	0.096	0.122	0.145	0.000
27-SEP-94 15:56:02 500 PROCESS	14.98	1.07	4.8	4	1.082	04	102	92	3.21	5.24	50	17	118	100	0.40	15.1	12.6	79	0.420	1.116	1.110	1.125	1.145	0.137	0.104	0.125	0.139	0.000
27-SEP-94 15:57:02 500 PROCESS	14.95	1.06	4.8	4	1.084	03	102	90	3.19	4.96	50	18	119	100	0.43	15.1	13.8	79	0.418	1.093	1.087	1.093	1.142	0.127	0.110	0.120	0.143	0.000
27-SEP-94 15:58:01 500 PROCESS	14.96	1.07	4.8	3	1.091	03	102	90	3.26	4.93	50	17	117	100	0.39	15.1	16.2	79	0.418	1.084	1.094	1.093	1.149	0.137	0.101	0.120	0.118	0.000
27-SEP-94 15:58:54 500 PROCESS	14.98	1.07	4.9	3	1.094	02	102	89	3.21	4.86	50	18	116	100	0.41	15.1	17.4	79	0.414	1.087	1.084	1.093	1.145	0.133	0.107	0.121	0.147	0.000
27-SEP-94 16:03:54 500 PROCESS	14.96	1.07	4.9	4	1.088	03	102	90	3.26	5.15	50	18	118	101	0.42	12.5	13.9	79	0.419	1.083	1.089	1.096	1.140	0.138	0.106	0.126	0.143	0.000
27-SEP-94 16:08:54 500 PROCESS	15.00	1.07	5.0	3	1.080	04	103	91	3.15	5.22	50	17	120	100	0.42	15.1	11.3	79	0.415	1.090	1.093	1.088	1.142	0.144	0.095	0.120	0.166	0.000
27-SEP-94 16:13:54 500 PROCESS	15.00	1.07	5.1	3	1.084	05	102	92	3.26	5.01	59	16	118	100	0.41	12.3	15.1	79	0.424	1.090	1.090	1.089	1.151	0.133	0.106	0.133	0.149	0.000
27-SEP-94 16:18:54 500 PROCESS	15.02	1.07	5.2	3	1.087	03	102	90	3.19	4.86	50	18	116	101	0.42	13.9	17.5	79	0.415	1.094	1.082	1.093	1.145	3.126	0.101	0.125	0.143	0.000
27-SEP-94 16:23:54 500 PROCESS	14.94	1.06	5.2	4	1.093	03	103	90	3.24	5.03	50	18	116	100	0.40	13.8	13.9	79	0.423	1.087	1.093	1.093	1.144	0.122	0.098	0.121	0.140	0.000
27-SEP-94 16:28:53 500 PROCESS	14.96	1.07	5.3	3	1.080	05	102	92	3.26	4.79	50	16	117	101	0.44	15.0	11.4	79	0.519	1.092	1.095	1.089	1.142	0.137	0.109	0.129	0.145	0.000
27-SEP-94 16:33:53 500 PROCESS	15.01	1.07	5.4	2	1.901	05	102	92	3.23	4.70	50	16	116	101	0.45	11.4	17.7	79	0.413	1.090	1.308	1.091	1.140	0.139	0.104	0.127	0.130	0.000
27-SEP-94 16:38:53 500 PROCESS	14.90	1.07	5.5	3	1.094	04	103	91	3.19	4.90	50	17	116	101	0.41	15.1	15.0	79	0.418	1.082	1.094	1.095	1.142	0.144	0.114	0.127	0.131	0.000
27-SEP-94 16:43:53 500 PROCESS	14.96	1.07	5.6	3	1.080	02	102	90	3.20	4.74	50	19	117	101	0.43	[illegible]	11.4	79	0.419	[illegible]	[illegible]	1.192	1.140	0.134	3.106	0.120	0.142	0.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

27-SEP-94 16:58:53	500 PROCESS	14.76	1.07	5.8	3	1.096	83	102	90	3.24	4.91	50	18	115	101	0.45	15.0	15.6	79	0.423	1.082	1.083	1.087	1.142 0.102	0.163	0.117	0.142 0.000
27-SEP-94 17:03:53	500 PROCESS	15.02	1.07	5.9	4	1.092	83	102	90	3.24	4.67	50	19	117	101	0.42	17.6	11.4	79	0.415	1.092	1.076	1.092	1.140 0.129	0.110	0.122	0.140 0.000
27-SEP-94 17:08:53	500 PROCESS	15.01	1.07	5.9	3	1.079	84	102	92	3.25	5.03	50	17	119	101	0.45	12.8	12.5	79	0.420	1.093	1.085	1.088	1.159 0.103	0.110	0.125	0.138 0.000
27-SEP-94 17:13:52	500 PROCESS	15.00	1.07	6.0	3	1.085	85	102	91	3.18	4.98	50	16	117	101	0.45	12.5	14.0	79	0.418	1.093	1.083	1.080	1.107 0.144	0.117	0.120	0.151 0.000
27-SEP-94 17:18:52	500 PROCESS	15.03	1.08	6.1	3	1.096	85	102	92	3.23	4.95	50	17	115	101	0.40	15.1	15.1	79	0.425	1.087	1.090	1.087	1.139 0.164	0.112	0.127	0.136 0.000
27-SEP-94 17:23:53	500 PROCESS	15.00	1.07	6.2	3	1.091	82	103	89	3.30	4.70	50	19	116	101	0.40	16.4	12.6	79	0.418	1.090	1.082	1.098	1.139 0.136	0.094	0.123	0.145 0.000
27-SEP-94 17:28:52	500 PROCESS	14.99	1.07	6.2	3	1.087	85	102	92	3.30	5.14	50	16	118	101	0.42	12.6	12.5	79	0.413	1.095	1.092	1.087	1.134 0.137	0.101	0.126	0.147 0.000
27-SEP-94 17:33:52	500 PROCESS	14.98	1.07	6.3	3	1.076	85	102	92	3.24	5.00	50	16	119	101	0.42	13.2	13.8	79	0.415	1.094	1.090	1.093	1.145 0.134	0.105	0.120	0.151 0.000
27-SEP-94 17:38:52	500 PROCESS	14.99	1.07	6.4	3	1.079	83	102	90	3.27	4.45	50	18	119	101	0.45	17.6	11.3	79	0.413	1.088	1.070	1.089	1.140 0.137	0.105	0.128	0.138 0.000
27-SEP-94 17:43:52	500 PROCESS	15.03	1.07	6.5	4	1.076	83	102	91	3.30	5.14	50	18	119	101	0.41	15.1	12.6	79	0.419	1.082	1.080	1.094	1.192 0.176	0.094	0.120	0.134 0.000
27-SEP-94 17:48:52	500 PROCESS	14.96	1.07	6.6	3	1.079	85	102	92	3.25	4.96	50	16	118	101	0.45	13.9	13.8	79	0.425	1.084	1.082	1.081	1.140 0.176	0.109	0.120	0.136 0.000
27-SEP-94 17:53:52	500 PROCESS	14.97	1.07	6.6	2	1.097	85	103	92	3.23	4.76	50	16	115	101	0.39	12.6	17.7	79	0.411	1.087	1.092	1.089	1.134 0.136	0.109	0.132	0.133 0.000
27-SEP-94 17:58:52	500 PROCESS	15.00	1.07	6.7	3	1.096	83	102	90	3.27	4.38	59	18	115	101	0.39	18.8	11.4	79	0.419	1.093	1.088	1.087	1.140 0.140	0.105	0.129	0.144 0.000
27-SEP-94 18:03:52	500 PROCESS	15.02	1.07	6.8	4	1.091	82	102	89	3.29	4.89	50	19	116	100	0.44	13.6	11.3	79	0.420	1.092	1.084	1.095	1.144 0.136	0.110	0.126	0.140 0.000
27-SEP-94 18:08:51	500 PROCESS	14.98	1.07	6.9	3	1.083	84	102	92	3.29	5.01	50	16	118	100	0.42	12.6	13.9	79	0.413	1.090	1.083	1.088	1.134 0.132	0.101	0.121	0.130 0.000
27-SEP-94 18:13:51	500 PROCESS	14.98	1.07	6.9	2	1.090	84	102	91	3.27	5.26	50	17	117	100	0.45	15.0	12.6	79	0.415	1.089	1.084	1.092	1.137 0.147	0.107	0.125	0.160 0.000
27-SEP-94 18:18:51	500 PROCESS	15.02	1.07	7.0	3	1.089	82	102	89	3.33	4.91	50	19	116	101	0.45	15.0	15.1	79	0.420	1.094	1.089	1.093	1.143 0.155	0.103	0.133	0.149 0.000
27-SEP-94 18:23:51	500 PROCESS	14.99	1.07	7.1	4	1.090	83	102	90	3.35	5.26	50	18	116	101	0.46	15.9	11.3	79	0.418	1.095	1.089	1.089	1.137 0.145	0.116	0.130	0.147 0.000
27-SEP-94 18:28:51	500 PROCESS	14.99	1.07	7.2	3	1.091	85	102	92	3.25	5.09	50	16	117	100	0.46	12.6	15.3	79	0.413	1.089	1.087	1.093	1.140 0.132	0.104	0.121	0.149 0.000
27-SEP-94 18:33:51	500 PROCESS	14.99	1.07	7.2	2	1.092	84	102	90	3.28	5.06	50	17	116	100	0.41	17.5	12.6	79	0.421	1.084	1.085	1.088	1.147 0.151	0.106	0.140	0.150 0.000
27-SEP-94 18:38:51	500 PROCESS	14.95	1.06	7.3	3	1.089	82	102	89	3.35	4.75	50	19	116	100	0.44	16.4	11.4	79	0.413	1.085	1.085	1.089	1.130 0.139	0.093	0.122	0.130 0.000
27-SEP-94 18:43:51	500 PROCESS	15.00	1.07	7.4	4	1.089	82	102	89	3.27	4.93	50	18	116	100	0.43	14.9	11.3	79	0.414	1.083	1.089	1.089	1.130 0.132	0.105	0.121	0.149 0.000
27-SEP-94 18:48:50	500 PROCESS	15.04	1.08	7.5	3	1.070	84	102	91	3.30	5.12	50	17	119	100	0.42	11.2	15.2	79	0.418	1.098	1.085	1.088	1.142 0.137	0.101	0.125	0.155 0.000
27-SEP-94 18:53:50	500 PROCESS	15.00	1.07	7.6	2	1.083	85	102	91	3.19	5.22	50	18	118	100	0.43	15.1	12.6	79	0.419	1.088	1.087	1.080	1.144 0.133	0.111	0.125	0.162 0.000
27-SEP-94 18:58:50	500 PROCESS	15.00	1.07	7.6	3	1.071	82	102	89	3.27	4.44	50	19	116	100	0.42	17.6	11.4	79	0.419	1.095	1.096	1.087	1.137 0.138	0.111	0.125	0.147 0.000
27-SEP-94 19:03:50	500 PROCESS	14.99	1.07	7.7	4	1.096	83	102	89	3.28	5.09	50	18	118	100	0.42	14.9	12.7	79	0.418	1.088	1.085	1.084	1.133 0.176	0.095	0.117	0.139 0.000
27-SEP-94 19:08:50	500 PROCESS	14.94	1.06	7.8	3	1.085	83	102	90	3.23	4.07	50	18	117	100	0.41	13.9	12.4	79	0.415	1.085	1.083	1.093	1.143 0.127	0.100	0.122	0.142 0.000
27-SEP-94 19:13:50	500 PROCESS	15.02	1.07	7.9	3	1.075	83	102	92	3.24	4.99	50	16	119	100	0.39	13.8	13.9	79	0.423	1.090	1.090	1.090	1.142 0.127	0.107	0.129	0.140 0.000
27-SEP-94 19:18:50	500 PROCESS	15.01	1.07	7.9	2	1.083	85	102	92	3.25	4.46	50	16	118	100	0.39	17.6	11.4	79	0.419	1.090	1.089	1.090	1.144 0.142	0.099	0.110	0.166 0.000
27-SEP-94 19:23:50	500 PROCESS	15.00	1.07	8.0	3	1.089	82	102	89	3.26	4.70	50	19	116	100	0.41	16.3	12.6	79	0.413	1.090	1.087	1.095	1.130 0.136	0.107	0.120	0.143 0.000
27-SEP-94 19:28:50	500 PROCESS	14.93	1.06	8.1	4	1.086	82	102	90	3.30	4.00	50	18	116	100	0.44	13.9	12.5	79	0.411	1.087	1.090	1.093	1.140 0.143	0.109	0.133	0.139 0.000
27-SEP-94 19:33:50	500 PROCESS	15.00	1.07	8.2	3	1.075	85	102	92	3.23	4.02	50	16	120	100	0.43	18.1	13.8	79	0.413	1.092	1.093	1.090	1.147 0.151	0.109	0.126	0.143 0.000
27-SEP-94 19:38:49	500 PROCESS	15.02	1.07	8.3	2	1.082	85	102	92	3.26	5.17	50	16	118	100	0.42	13.9	12.7	79	0.423	1.089	1.087	1.094	1.102 0.142	0.111	0.117	0.140 0.000
27-SEP-94 19:43:50	500 PROCESS	14.91	1.06	8.3	3	1.091	82	102	89	3.27	4.52	50	19	116	100	0.40	17.6	11.4	79	0.419	1.094	1.087	1.092	1.143 0.134	0.103	0.123	0.139 0.000
27-SEP-94 19:48:49	500 PROCESS	14.90	1.07	8.4	3	1.087	82	102	89	3.29	4.05	50	19	116	100	0.43	15.0	11.4	79	0.415	1.093	1.088	1.092	1.139 0.134	0.100	0.118	0.140 0.000
27-SEP-94 19:53:49	500 PROCESS	14.98	1.07	8.5	3	1.091	84	102	91	3.27	5.07	50	17	115	100	0.40	12.6	12.6	79	0.419	1.095	1.089	1.093	1.140 0.134	0.106	0.126	0.144 0.000
27-SEP-94 19:58:49	500 PROCESS	14.98	1.07	8.6	3	1.099	85	102	91	3.32	5.07	50	17	118	100	0.39	12.6	13.9	79	0.420	1.092	1.094	1.090	1.133 0.149	0.105	0.121	0.140 0.000
27-SEP-94 20:03:49	500 PROCESS	15.01	1.07	8.6	2	1.085	84	102	90	3.24	4.47	50	17	116	100	0.42	17.6	12.0	79	0.418	1.094	1.089	1.095	1.140 0.136	0.110	0.127	0.142 0.000
27-SEP-94 20:08:49	500 PROCESS	14.99	1.07	8.7	3	1.087	82	102	89	3.30	4.71	50	19	116	100	0.41	15.1	15.1	79	0.419	1.093	1.092	1.095	1.137 0.145	0.103	0.120	0.137 0.000
27-SEP-94 20:13:49	500 PROCESS	15.03	1.08	8.8	4	1.078	82	102	89	3.27	4.05	50	19	118	100	0.37	12.5	15.2	79	0.412	1.090	1.088	1.088	1.130 0.143	0.105	0.121	0.139 0.000
27-SEP-94 20:18:49	500 PROCESS	14.99	1.07	8.9	3	1.079	84	102	92	3.27	4.93	50	17	118	100	0.37	12.5	13.9	79	0.420	1.084	1.094	1.090	1.140 0.132	0.100	0.120	0.140 0.000
27-SEP-94 20:23:49	500 PROCESS	14.99	1.07	8.9	3	1.079	85	102	91	3.25	4.71	50	16	118	99	0.44	13.9	12.7	79	0.418	1.094	1.089	1.092	1.143 0.132	0.101	0.117	0.144 0.000
27-SEP-94 20:28:48	500 PROCESS	14.96	1.07	9.0	2	1.062	83	102	90	3.25	4.44	50	18	118	100	0.38	12.6	19.0	79	0.421	1.088	1.096	1.089	1.130 0.143	0.105	0.112	0.140 0.000
27-SEP-94 20:33:48	500 PROCESS	14.90	1.07	9.1	3	1.090	82	102	89	3.32	4.01	50	19	115	100	0.41	15.0	15.2	79	0.419	1.093	1.093	1.096	1.143 0.144	0.107	0.126	0.130 0.000
27-SEP-94 20:38:48	500 PROCESS	14.96	1.07	9.2	4	1.070	83	102	90	3.30	5.07	50	18	118	99	0.44	15.0	12.6	79	0.420	1.088	1.088	1.096	1.147 0.138	0.101	0.123	0.149 0.000
27-SEP-94 20:43:48	500 PROCESS	14.98	1.07	9.3	3	1.078	83	102	92	3.26	4.02	50	16	118	100	0.40	13.9	12.8	79	0.419	1.085	1.085	1.092	1.139 0.131	0.100	0.125	0.140 0.000
27-SEP-94 20:48:48	500 PROCESS	14.99	1.07	9.3	2	1.082	83	102	91	3.23	4.62	59	16	117	99	0.43	12.6	19.0	79	0.415	1.095	1.087	1.090	1.142 0.139	0.109	0.127	0.151 0.000
27-SEP-94 20:53:48	500 PROCESS	15.02	1.07	9.4	3	1.085	84	102	90	3.30	4.28	50	17	116	99	0.47	18.9	11.3	79	0.414	1.093	1.098	1.090	1.142 0.137	0.109	0.127	0.142 0.000
27-SEP-94 20:58:48	500 PROCESS	15.02	1.07	9.5	3	1.091	82	102	88	3.32	4.65	50	19	115	99	0.45	15.0	12.6	79	0.417	1.092	1.095	1.085	1.137 0.140	0.099	0.120	0.142 0.000
27-SEP-94 21:03:48	500 PROCESS	14.98	1.07	9.6	4	1.079	84	102	92	3.26	4.01	50	17	118	99	0.36	12.6	11.4	79	0.418	1.088	1.093	1.089	1.134 0.130	0.103	0.120	0.143 0.000
27-SEP-94 21:08:48	500 PROCESS	14.99	1.07	9.6	3	1.082	80	101	92	3.26	4.94	50	17	118	100	0.38	12.5	13.9	79	0.419	1.092	1.090	1.095	1.137 0.139	0.093	0.122	0.154 0.000
27-SEP-94 21:13:47	500 PROCESS	14.96	1.06	9.7	2	1.095	85	102	91	3.28	4.45	50	16	114	99	0.39	17.5	11.4	79	0.420	1.092	1.089	1.092	1.140 0.141	0.115	0.121	0.147 0.000
27-SEP-94 21:18:47	500 PROCESS	14.95	1.07	9.8	3	1.095	82	102	89	3.26	4.73	50	19	115	99	0.41	16.4	15.1	79	0.416	1.092	1.084	1.096	1.144 0.136	0.107	0.123	0.142 0.000
27-SEP-94 21:23:47	500 PROCESS	14.98	1.07	9.9	4	1.091	82	102	89	3.32	4.09	50	19	115	99	0.40	13.8	15.2	79	0.417	1.090	1.092	1.089	1.140 0.129	0.104	0.126	0.145 0.000
27-SEP-94 21:28:47	500 PROCESS	14.94	1.06	9.9	3	1.093	84	101	91	3.29	4.93	50	17	115	99	0.40	10.0	13.9	79	0.418	1.095	1.093	1.087	1.147 0.145	0.104	0.117	0.149 0.000
27-SEP-94 21:33:47	500 PROCESS	15.00	1.07	10.0	3	1.085	85	101	91	3.21	4.20	50	16	116	99	0.42	18.9	10.1	79	0.419	1.093	1.090	1.092	1.139 0.136	0.106	0.121	0.155 0.000
27-SEP-94 21:38:47	500 PROCESS	14.98	1.07	10.1	3	1.091	82	102	89	3.35	4.67	50	19	115	99	0.43	15.1	15.2	79	0.412	1.095	1.090	1.096	1.137 0.137	0.104	0.123	0.143 0.000
27-SEP-94 21:43:47	500 PROCESS	15.00	1.07	10.2	3	1.089	82	102	89	3.27	4.79	50	19	116	99	0.40	13.8	13.9	79	0.415	1.100	1.089	1.082	1.130 0.142	0.103	0.121	0.141 [illegible]
27-SEP-94 21:48:47	500 PROCESS	15.02	1.07	10.3	4	1.079	83	102	91	3.24	4.06	50	18	119	99	0.43	11.3	12.6	79	0.414	1.093	1.092	1.094	1.142 0.136	0.112	0.126	0.143 [illegible]
27-SEP-94 21:53:47	500 PROCESS	15.02	1.07	10.3	3	1.077	84	102	91	3.28	4.09	50	16	118	99	0.45	11.4	12.8	79	0.415	1.093	[illegible]	1.092	[illegible]	0.956	0.117	0.147 [illegible]
27-SEP-94 21:58:47	500 PROCESS	15.00	1.97	10.4	2	1.079	84	101	93	3.24	4.23	50	15	115	99	0.40	18.9	10.5	79	0.412	1.095	[illegible]	[illegible]	[illegible]	[illegible]	0.121	0.145 0.000
27-SEP-94 22:03:46	500 PROCESS	14.97	1.07	10.5	3	1.070	34	102	91	3.22	4.49	59	17	115	99	0.42	15.1	12.7	79	0.424	1.092	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.147 0.000
[illegible]	500 PROCESS	14.99	1.07	10.6	1	1.577	52	102	90	3.31	4.75	50	19	113	99	0.41	[illegible]	13.3	79	0.419	1.087	1.089	1.090	1.134 0.134	0.107	0.120	0.143 0.000
[illegible]	[illegible]	14.99	1.07	10.6	[illegible]	1.035	[illegible]	[illegible]	[illegible]	3.31	4.33	56	15	117	100	0.40	12.8	13.9	79	0.419	1.095	1.085	1.084	1.133 0.139	0.130	0.126	0.139 0.000

27-SEP-94 22:28:46 500 PROCESS	15.05	1.08	10.9	4	1.090	03	102	91	3.24	5.20	50	17	116	99	0.40	15.1	11.3	79	0.424	1.084	1.087	1.093	1.133	0.150	0.125	0.129	0.136	0.000
27-SEP-94 22:33:46 500 PROCESS	15.02	1.07	10.9	3	1.092	04	102	90	3.34	5.04	50	17	115	99	0.41	12.4	14.0	79	0.419	1.094	1.069	1.088	1.139	0.143	0.105	0.125	0.136	0.000
27-SEP-94 22:38:46 500 PROCESS	15.00	1.07	11.0	2	1.091	04	102	90	3.30	4.75	50	18	115	99	0.43	15.1	17.6	79	0.414	1.094	1.088	1.090	1.137	0.142	0.103	0.125	0.143	0.000
27-SEP-94 22:43:45 500 PROCESS	14.98	1.07	11.1	3	1.087	02	102	90	3.32	4.44	50	19	116	99	0.41	17.7	11.4	79	0.417	1.096	1.089	1.073	1.139	0.136	0.103	0.129	0.129	0.000
27-SEP-94 22:48:46 500 PROCESS	15.01	1.07	11.2	4	1.086	03	102	91	3.33	4.91	50	17	115	99	0.40	13.0	11.4	79	0.418	1.094	1.090	1.094	1.149	0.142	0.101	0.129	0.140	0.000
27-SEP-94 22:53:45 500 PROCESS	15.00	1.07	11.3	3	1.079	03	102	90	3.31	4.84	50	18	118	99	0.43	11.1	15.1	79	0.412	1.092	1.087	1.093	1.140	0.137	0.112	0.121	0.142	0.000
27-SEP-94 22:58:45 500 PROCESS	15.01	1.07	11.3	2	1.085	03	102	90	3.25	4.91	50	18	116	99	0.41	17.4	11.4	79	0.417	1.084	1.089	1.093	1.142	0.144	0.109	0.129	0.153	0.000
27-SEP-94 23:03:45 500 PROCESS	14.97	1.07	11.4	3	1.080	02	102	89	3.33	4.89	50	19	116	99	0.40	15.1	15.2	79	0.414	1.094	1.089	1.072	1.130	0.143	0.109	0.127	0.142	0.000
27-SEP-94 23:08:45 500 PROCESS	15.01	1.07	11.5	4	1.086	04	102	91	3.30	5.15	50	18	116	99	0.39	15.1	11.4	79	0.421	1.095	1.087	1.087	1.143	0.130	0.105	0.130	0.143	0.000
27-SEP-94 23:13:45 500 PROCESS	15.01	1.07	11.6	3	1.086	04	102	91	3.29	5.09	50	17	116	99	0.40	12.4	15.2	79	0.414	1.096	1.088	1.094	1.142	0.142	0.096	0.120	0.138	0.000
27-SEP-94 23:18:45 500 PROCESS	15.00	1.07	11.6	2	1.087	05	102	92	3.23	5.01	50	16	116	99	0.37	17.6	12.7	79	0.423	1.084	1.087	1.087	1.139	0.140	0.110	0.123	0.155	0.000
27-SEP-94 23:23:45 500 PROCESS	14.98	1.07	11.7	3	1.085	02	102	89	3.33	4.78	50	19	116	100	0.40	14.4	11.4	79	0.425	1.093	1.092	1.096	1.137	0.138	0.103	0.133	0.143	0.000
27-SEP-94 23:28:45 500 PROCESS	14.99	1.07	11.8	4	1.081	03	102	90	3.29	4.83	50	18	118	100	0.43	13.8	11.3	79	0.414	1.085	1.092	1.097	1.140	0.143	0.096	0.118	0.137	0.000
27-SEP-94 23:33:45 500 PROCESS	15.00	1.07	11.9	3	1.076	04	102	91	3.34	4.93	50	17	120	100	0.38	11.3	15.2	79	0.418	1.094	1.090	1.081	1.139	0.132	0.103	0.133	0.155	0.000
27-SEP-94 23:38:44 500 PROCESS	14.99	1.07	11.9	2	1.075	04	102	91	3.21	5.01	50	17	119	99	0.40	15.0	12.7	79	0.418	1.077	1.081	1.082	1.139	0.195	0.112	0.120	0.156	0.000
27-SEP-94 23:43:44 500 PROCESS	14.94	1.06	12.0	3	1.071	02	102	89	3.26	4.07	50	19	119	99	0.42	15.0	15.1	79	0.419	1.093	1.087	1.090	1.149	0.145	0.105	0.131	0.139	0.000
27-SEP-94 23:48:44 500 PROCESS	15.02	1.07	12.1	4	1.084	02	102	89	3.27	4.75	50	19	117	99	0.43	14.4	11.3	79	0.418	1.087	1.098	1.094	1.143	0.127	0.101	0.123	0.147	0.000
27-SEP-94 23:53:44 500 PROCESS	15.02	1.07	12.2	4	1.072	04	102	91	3.27	4.92	50	18	119	100	0.43	12.4	12.5	79	0.423	1.084	1.088	1.092	1.142	0.143	0.100	0.122	0.137	0.000
27-SEP-94 23:58:44 500 PROCESS	14.99	1.07	12.3	3	1.072	05	102	92	3.29	4.89	50	17	119	99	0.43	12.4	13.9	79	0.418	1.099	1.094	1.093	1.132	0.130	0.112	0.122	0.140	0.000
28-SEP-94 00:03:44 500 PROCESS	14.96	1.07	12.3	3	1.084	02	102	89	3.29	4.38	50	19	117	99	0.39	10.0	11.4	79	0.412	1.092	1.095	1.094	1.142	0.140	0.104	0.122	0.107	0.000
28-SEP-94 00:08:44 500 PROCESS	15.01	1.07	12.4	3	1.085	02	102	89	3.37	5.01	50	19	116	99	0.40	15.1	13.0	79	0.419	1.080	1.085	1.093	1.143	0.120	0.093	0.116	0.133	0.000
28-SEP-94 00:13:44 500 PROCESS	14.97	1.07	12.5	4	1.083	04	102	92	3.30	4.75	50	18	117	100	0.37	15.0	11.4	79	0.417	1.087	1.084	1.090	1.137	0.130	0.115	0.134	0.140	0.000
28-SEP-94 00:18:44 500 PROCESS	14.98	1.07	12.6	3	1.070	05	102	92	3.23	4.82	50	17	119	100	0.44	11.4	15.2	79	0.419	1.080	1.096	1.093	1.142	0.136	0.105	0.122	0.156	0.000
28-SEP-94 00:23:43 500 PROCESS	14.99	1.07	12.7	2	1.070	03	102	90	3.26	4.73	50	18	118	100	0.46	15.0	17.7	79	0.417	1.092	1.094	1.092	1.137	0.144	0.104	0.133	0.150	0.000
28-SEP-94 00:28:43 500 PROCESS	14.98	1.07	12.7	3	1.084	03	102	89	3.28	4.43	50	19	116	99	0.42	17.7	12.7	79	0.412	1.098	1.085	1.095	1.144	0.131	0.105	0.123	0.142	0.000
28-SEP-94 00:33:43 500 PROCESS	14.98	1.07	12.8	4	1.083	02	102	89	3.37	4.82	50	19	117	100	0.40	13.9	12.6	79	0.415	1.098	1.088	1.089	1.137	0.130	0.103	0.129	0.143	0.000
28-SEP-94 00:38:43 500 PROCESS	14.98	1.07	12.9	3	1.074	05	102	91	3.32	4.91	50	17	119	100	0.43	12.6	13.9	79	0.413	1.089	1.089	1.088	1.137	0.131	0.106	0.127	0.150	0.000
28-SEP-94 00:43:43 500 PROCESS	14.98	1.07	12.9	3	1.072	05	102	92	3.25	5.06	50	17	119	100	0.38	13.0	12.6	79	0.417	1.084	1.085	1.093	1.137	0.139	0.105	0.131	0.159	0.000
28-SEP-94 00:48:43 500 PROCESS	15.02	1.07	13.0	3	1.082	02	102	89	3.35	4.38	50	19	116	99	0.41	17.6	12.6	79	0.419	1.085	1.089	1.090	1.140	0.137	0.097	0.131	0.151	0.000
28-SEP-94 00:53:43 500 PROCESS	15.02	1.07	13.1	3	1.084	02	102	89	3.29	4.76	50	19	117	100	0.42	15.1	11.5	79	0.413	1.080	1.089	1.094	1.133	0.143	0.109	0.126	0.143	0.000
28-SEP-94 00:58:43 500 PROCESS	14.88	1.06	13.2	4	1.075	05	102	92	3.20	4.75	50	17	119	100	0.43	13.6	11.4	79	0.418	1.095	1.092	1.090	1.140	0.142	0.105	0.129	0.144	0.000
28-SEP-94 01:03:42 500 PROCESS	14.96	1.07	13.3	3	1.071	05	102	91	3.20	4.80	50	16	119	99	0.44	11.4	13.9	79	0.418	1.092	1.090	1.080	1.130	0.139	0.104	0.126	0.138	0.000
28-SEP-94 01:08:43 500 PROCESS	14.99	1.07	13.3	2	1.073	03	102	89	3.32	4.31	50	19	119	99	0.40	10.9	11.4	79	0.414	1.093	1.090	1.090	1.138	0.124	0.101	0.131	0.139	0.000
28-SEP-94 01:13:43 500 PROCESS	14.99	1.07	13.4	3	1.084	02	102	89	3.34	4.93	50	19	116	103	0.40	15.0	13.0	79	0.419	1.096	1.093	1.092	1.134	0.137	0.101	0.125	0.140	0.000
28-SEP-94 01:18:42 500 PROCESS	14.95	1.06	13.5	4	1.071	04	102	92	3.34	4.65	50	17	119	99	0.39	15.0	11.4	79	0.417	1.094	1.095	1.087	1.139	0.140	0.105	0.120	0.149	0.000
28-SEP-94 01:23:42 500 PROCESS	14.97	1.07	13.6	3	1.070	04	102	91	3.30	4.84	50	17	119	99	0.40	12.5	15.1	79	0.419	1.080	1.089	1.093	1.144	0.131	0.090	0.126	0.149	0.000
28-SEP-94 01:28:42 500 PROCESS	15.01	1.07	13.7	2	1.071	04	102	91	3.27	4.56	50	17	119	99	0.42	14.4	11.4	79	0.419	1.096	1.094	1.096	1.136	0.147	0.103	0.120	0.153	0.000
28-SEP-94 01:33:42 500 PROCESS	14.98	1.07	13.7	3	1.073	02	102	89	3.35	4.57	50	19	119	100	0.41	14.4	11.4	79	0.407	1.098	1.084	1.085	1.147	0.137	0.103	0.115	0.147	0.000
28-SEP-94 01:38:42 500 PROCESS	14.97	1.07	13.8	4	1.074	03	102	91	3.31	4.76	50	18	119	100	0.40	13.7	11.4	79	0.418	1.087	1.092	1.089	1.134	0.130	0.104	0.133	0.147	0.000
28-SEP-94 01:43:42 500 PROCESS	15.02	1.07	13.9	3	1.069	05	102	92	3.24	4.65	50	16	119	100	0.46	10.8	15.1	79	0.415	1.077	1.077	1.084	1.136	0.212	0.099	0.134	0.137	0.000
28-SEP-94 01:48:42 500 PROCESS	14.98	1.07	13.9	2	1.071	04	102	91	3.25	4.59	50	17	119	100	0.39	13.9	17.6	79	0.421	1.096	1.095	1.085	1.139	0.140	0.103	0.127	0.147	0.000
28-SEP-94 01:53:42 500 PROCESS	15.00	1.07	14.0	3	1.083	02	102	89	3.33	4.43	50	19	117	100	0.42	10.9	11.4	79	0.414	1.096	1.092	1.092	1.147	0.139	0.104	0.132	0.144	0.000
28-SEP-94 01:58:41 500 PROCESS	14.98	1.07	14.1	4	1.082	03	102	90	3.33	4.06	50	18	117	100	0.43	13.0	11.4	79	0.418	1.093	1.093	1.090	1.137	0.144	0.103	0.122	0.138	0.000
28-SEP-94 02:03:41 500 PROCESS	14.94	1.06	14.2	3	1.072	05	102	92	3.33	4.95	50	16	119	99	0.40	12.6	14.0	79	0.415	1.092	1.084	1.090	1.144	0.126	0.107	0.125	0.145	0.000
28-SEP-94 02:08:41 500 PROCESS	14.96	1.07	14.3	2	1.070	05	101	92	3.26	4.92	50	16	119	99	0.43	14.0	12.7	79	0.418	1.084	1.083	1.093	1.145	0.137	0.101	0.132	0.156	0.000
28-SEP-94 02:13:41 500 PROCESS	14.98	1.07	14.4	3	1.071	02	102	89	3.30	4.37	50	19	119	99	0.45	17.6	12.6	79	0.415	1.089	1.093	1.099	1.140	0.140	0.107	0.127	0.149	0.000
28-SEP-94 02:18:41 500 PROCESS	14.98	1.06	14.4	4	1.077	03	102	89	3.26	5.07	50	19	118	100	0.45	16.3	12.7	79	0.421	1.088	1.094	1.092	1.130	0.144	0.100	0.125	0.147	0.000
28-SEP-94 02:23:41 500 PROCESS	15.01	1.07	14.5	3	1.073	05	102	92	3.24	4.75	50	17	119	99	0.45	13.9	12.6	79	0.420	1.090	1.094	1.093	1.145	0.131	0.100	0.126	0.153	0.000
28-SEP-94 02:28:41 500 PROCESS	15.01	1.07	14.6	3	1.079	05	102	92	3.27	4.90	50	17	118	100	0.41	13.9	13.0	79	0.419	1.092	1.080	1.093	1.144	0.130	0.109	0.129	0.153	0.000
28-SEP-94 02:33:41 500 PROCESS	15.03	1.08	14.7	3	1.077	02	102	89	3.26	4.37	50	19	117	100	0.43	17.4	11.3	79	0.420	1.093	1.080	1.092	1.147	0.140	0.096	0.123	0.142	0.000
28-SEP-94 02:38:41 500 PROCESS	14.96	1.07	14.7	3	1.087	03	102	90	3.30	4.47	50	19	115	99	0.41	15.1	11.3	79	0.412	1.090	1.080	1.087	1.144	0.144	0.104	0.127	0.140	0.000
28-SEP-94 02:43:40 500 PROCESS	14.97	1.07	14.8	3	1.075	05	102	92	3.32	4.86	50	17	117	99	0.43	12.6	11.4	79	0.417	1.092	1.084	1.092	1.136	0.136	0.095	0.122	0.142	0.000
28-SEP-94 02:48:41 500 PROCESS	15.03	1.08	14.9	2	1.082	05	102	91	3.29	4.54	50	17	116	100	0.41	11.3	17.5	79	0.421	1.093	1.090	1.093	1.148	0.160	0.116	0.122	0.103	0.000
28-SEP-94 02:53:40 500 PROCESS	14.99	1.07	15.0	3	1.092	02	102	89	3.34	4.01	50	19	115	99	0.41	14.9	16.4	79	0.417	1.096	1.089	1.087	1.142	0.134	0.099	0.122	0.143	0.000
28-SEP-94 02:58:40 500 PROCESS	14.94	1.06	15.0	3	1.088	02	102	89	3.27	4.52	50	19	115	99	0.41	17.5	11.4	79	0.413	1.090	1.092	1.093	1.130	0.143	0.110	0.126	0.147	0.000
28-SEP-94 03:03:40 500 PROCESS	14.93	1.06	15.1	3	1.089	03	102	92	3.23	5.04	50	17	115	100	0.36	12.4	12.6	79	0.426	1.094	1.093	1.089	1.137	0.133	0.103	0.123	0.140	0.000
28-SEP-94 03:08:40 500 PROCESS	15.00	1.07	15.2	2	1.092	05	102	91	3.25	5.06	50	17	114	99	0.43	13.3	12.6	79	0.419	1.089	1.084	1.090	1.139	0.171	0.106	0.127	0.149	0.000
28-SEP-94 03:13:40 500 PROCESS	14.97	1.07	15.3	3	1.089	02	102	89	3.29	4.75	50	19	115	100	0.39	15.0	15.0	79	0.415	1.095	1.092	1.094	1.130	0.142	0.099	0.126	0.151	0.000
28-SEP-94 03:18:40 500 PROCESS	15.02	1.07	15.4	4	1.081	02	102	89	3.30	4.59	50	19	116	99	0.41	16.4	11.4	79	0.417	1.085	1.304	1.098	1.144	0.138	0.114	0.121	0.147	0.000
28-SEP-94 03:23:40 500 PROCESS	15.04	1.08	15.4	3	1.069	05	102	92	3.30	5.00	50	16	119	109	0.41	12.5	12.7	79	0.415	1.084	1.092	1.087	1.107	0.138	0.103	0.126	0.150	0.000
28-SEP-94 03:28:40 500 PROCESS	15.03	1.07	15.5	3	1.074	05	102	92	3.26	4.70	50	17	118	100	0.42	12.5	13.9	79	0.418	1.099	1.094	1.090	1.142	0.132	0.107	0.118	0.156	0.000
28-SEP-94 03:33:39 500 PROCESS	14.89	1.06	15.6	3	1.074	03	102	89	3.29	4.32	50	19	118	100	0.45	10.9	11.3	79	0.417	1.088	1.037	1.095	1.144	0.138	0.109	0.120	0.153	0.000
28-SEP-94 03:38:39 500 PROCESS	14.99	1.07	15.7	4	1.073	03	102	90	3.32	4.96	50	18	119	100	0.40	15.9	14.0	79	0.424	1.085	1.095	1.090	1.142	0.144	0.106	0.126	0.136	0.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.125	0.110	0.009

20-SEP-94 03:58:37 500 PROCESS	15.00	1.07	16.0	4	1.088	03	102	89	3.29	4.91	50	19	115	100	0.41	15.1	13.9	79	0.618	1.093	1.082	1.090	1.145	0.167	0.103	0.129	0.136	0.000
20-SEP-94 04:03:37 500 PROCESS	15.00	1.07	16.0	3	1.082	05	102	92	3.29	4.73	50	16	116	100	0.43	15.0	11.4	79	0.610	1.088	1.089	1.095	1.140	0.120	0.100	0.118	0.140	0.000
20-SEP-94 04:08:37 500 PROCESS	15.03	1.08	16.1	2	1.079	08	102	91	3.26	4.35	50	17	117	100	0.41	18.1	18.9	79	0.613	1.094	1.087	1.092	1.153	0.103	0.098	0.125	0.153	0.000
20-SEP-94 04:13:38 500 PROCESS	14.99	1.07	16.2	3	1.082	02	102	89	3.33	4.75	50	19	115	99	0.38	15.2	15.2	79	0.619	1.094	1.088	1.093	1.134	0.137	0.112	0.122	0.142	0.000
20-SEP-94 04:18:38 500 PROCESS	15.02	1.07	16.3	3	1.091	02	102	89	3.37	4.65	50	19	114	99	0.42	16.9	11.4	79	0.618	1.081	1.094	1.092	1.140	0.145	0.104	0.116	0.134	0.000
20-SEP-94 04:23:38 500 PROCESS	15.00	1.07	16.4	3	1.078	05	102	91	3.30	4.74	50	17	118	99	0.43	12.6	11.4	79	0.612	1.088	1.092	1.089	1.136	0.137	0.106	0.126	0.149	0.000
20-SEP-94 04:28:38 500 PROCESS	15.00	1.07	16.4	3	1.077	05	102	91	3.25	4.84	50	17	118	100	0.41	12.6	13.0	79	0.624	1.096	1.093	1.094	1.131	0.148	0.107	0.123	0.142	0.000
20-SEP-94 04:33:38 500 PROCESS	14.98	1.07	16.5	2	1.074	03	102	89	3.29	4.28	50	19	118	99	0.43	18.9	11.4	79	0.618	1.093	1.087	1.093	1.137	0.145	0.110	0.121	0.155	0.000
20-SEP-94 04:38:38 500 PROCESS	14.96	1.07	16.6	3	1.071	02	102	89	3.32	4.56	50	19	119	99	0.41	15.0	12.6	79	0.621	1.088	1.094	1.093	1.130	0.134	0.103	0.122	0.140	0.000
20-SEP-94 04:43:38 500 PROCESS	15.01	1.07	16.7	3	1.070	05	101	92	3.29	4.71	50	17	119	99	0.43	12.5	11.3	79	0.615	1.094	1.090	1.094	1.144	0.132	0.109	0.127	0.145	0.000
20-SEP-94 04:48:38 500 PROCESS	14.95	1.06	16.7	3	1.070	04	101	91	3.28	4.79	50	17	119	99	0.40	12.6	17.7	79	0.617	1.085	1.085	1.090	1.133	0.140	0.103	0.134	0.154	0.000
20-SEP-94 04:53:37 500 PROCESS	15.01	1.07	16.8	2	1.085	03	102	90	3.28	4.11	50	19	116	99	0.41	18.8	11.4	79	0.617	1.090	1.089	1.089	1.139	0.137	0.114	0.126	0.144	0.000
20-SEP-94 04:58:37 500 PROCESS	14.97	1.07	16.9	3	1.087	02	102	89	3.29	4.66	50	19	115	99	0.43	15.0	11.4	79	0.618	1.090	1.090	1.094	1.142	0.137	0.105	0.125	0.131	0.000
20-SEP-94 05:03:37 500 PROCESS	14.93	1.06	17.0	4	1.091	02	102	89	3.40	4.00	50	19	115	99	0.40	13.9	11.3	79	0.615	1.088	1.088	1.085	1.137	0.145	0.110	0.123	0.142	0.000
20-SEP-94 05:08:37 500 PROCESS	15.01	1.07	17.1	3	1.078	04	101	91	3.21	4.83	50	17	117	99	0.43	11.3	15.2	79	0.618	1.088	1.094	1.087	1.133	0.140	0.100	0.120	0.145	0.000
20-SEP-94 05:13:37 500 PROCESS	14.99	1.07	17.1	2	1.077	05	102	91	3.26	5.00	50	16	118	99	0.40	15.0	12.5	79	0.618	1.094	1.088	1.088	1.139	0.131	0.107	0.130	0.155	0.000
20-SEP-94 05:18:37 500 PROCESS	14.93	1.06	17.2	3	1.076	02	102	88	3.30	4.43	50	19	117	99	0.42	17.7	13.9	79	0.608	1.094	1.089	1.087	1.133	0.139	0.094	0.122	0.128	0.000
20-SEP-94 05:23:37 500 PROCESS	14.96	1.07	17.3	3	1.069	02	102	89	3.31	4.41	50	19	119	99	0.41	13.9	15.2	79	0.619	1.098	1.092	1.087	1.134	0.145	0.105	0.123	0.143	0.000
20-SEP-94 05:28:37 500 PROCESS	14.92	1.06	17.4	4	1.070	05	102	91	3.27	4.09	50	16	119	90	0.43	11.3	13.8	79	0.613	1.092	1.088	1.090	1.137	0.134	0.109	0.136	0.153	0.000
20-SEP-94 05:33:37 500 PROCESS	14.97	1.07	17.4	3	1.070	04	101	92	3.24	5.01	50	17	119	99	0.38	12.6	12.6	79	0.613	1.092	1.089	1.096	1.137	0.144	0.114	0.129	0.150	0.000
20-SEP-94 05:38:37 500 PROCESS	14.98	1.07	17.5	2	1.083	03	101	89	3.33	4.41	50	18	116	99	0.45	17.5	12.6	79	0.617	1.087	1.092	1.095	1.142	0.139	0.104	0.122	0.150	0.000
20-SEP-94 05:43:37 500 PROCESS	14.99	1.07	17.6	3	1.085	02	101	89	3.34	4.65	50	19	116	99	0.40	15.0	13.9	79	0.615	1.095	1.090	1.090	1.139	0.133	0.099	0.128	0.143	0.000
20-SEP-94 05:48:37 500 PROCESS	14.97	1.07	17.7	4	1.086	03	101	90	3.32	4.07	50	18	116	90	0.44	12.6	15.2	79	0.614	1.093	1.088	1.096	1.140	0.130	0.099	0.132	0.143	0.000
20-SEP-94 05:53:36 500 PROCESS	14.98	1.07	17.7	3	1.082	05	101	92	3.23	4.09	50	16	116	90	0.43	12.5	13.9	79	0.619	1.088	1.095	1.089	1.136	0.143	0.103	0.117	0.147	0.000
20-SEP-94 05:58:36 500 PROCESS	15.01	1.07	17.8	2	1.082	04	102	91	3.24	4.32	50	16	116	99	0.42	17.6	11.4	79	0.614	1.092	1.090	1.093	1.143	0.136	0.110	0.117	0.139	0.000
20-SEP-94 06:03:36 500 PROCESS	15.00	1.07	17.9	3	1.083	02	101	89	3.35	4.49	50	19	115	90	0.42	15.1	16.4	79	0.613	1.096	1.098	1.092	1.140	0.137	0.094	0.127	0.134	0.000
20-SEP-94 06:08:36 500 PROCESS	14.95	1.06	18.0	3	1.074	02	102	89	3.29	4.65	50	19	117	90	0.42	12.5	17.7	79	0.617	1.089	1.084	1.089	1.140	0.137	0.094	0.121	0.134	0.000
20-SEP-94 06:13:36 500 PROCESS	14.90	1.07	18.1	4	1.070	04	102	91	3.38	4.98	50	17	119	90	0.44	13.8	12.7	79	0.623	1.093	1.095	1.092	1.143	0.143	0.100	0.126	0.143	0.000
20-SEP-94 06:18:36 500 PROCESS	14.96	1.07	18.1	3	1.070	05	102	91	3.26	4.74	50	17	119	90	0.41	13.0	14.0	79	0.618	1.092	1.098	1.089	1.142	0.150	0.103	0.128	0.143	0.000
20-SEP-94 06:23:36 500 PROCESS	15.01	1.07	18.2	2	1.085	04	102	90	3.30	4.74	50	18	116	90	0.44	12.5	17.6	79	0.617	1.087	1.088	1.087	1.134	0.133	0.090	0.123	0.139	0.000
20-SEP-94 06:28:36 500 PROCESS	15.01	1.07	18.3	3	1.086	02	102	89	3.30	4.84	50	19	116	98	0.44	15.1	15.2	79	0.612	1.090	1.089	1.092	1.142	0.137	0.105	0.123	0.137	0.000
20-SEP-94 06:33:35 500 PROCESS	14.99	1.07	18.4	4	1.089	02	102	89	3.35	4.51	50	19	115	99	0.42	16.3	11.3	79	0.623	1.096	1.092	1.094	1.130	0.131	0.104	0.123	0.145	0.000
20-SEP-94 06:38:34 500 PROCESS	15.00	1.07	18.4	3	1.089	04	102	92	3.29	4.90	50	16	114	99	0.44	12.5	12.7	79	0.615	1.095	1.094	1.098	1.134	0.134	0.101	0.122	0.150	0.000
20-SEP-94 06:43:35 500 PROCESS	14.90	1.07	18.5	3	1.077	05	102	91	3.32	4.93	50	16	117	90	0.45	12.4	13.9	79	0.617	1.101	1.087	1.090	1.130	0.137	0.094	0.132	0.144	0.000
20-SEP-94 06:48:35 500 PROCESS	15.00	1.07	18.6	2	1.081	03	102	89	3.29	4.34	50	19	116	90	0.41	18.9	11.4	79	0.610	1.099	1.094	1.092	1.139	0.142	0.094	0.129	0.153	0.000
20-SEP-94 06:53:35 500 PROCESS	14.90	1.06	18.7	3	1.078	02	102	89	3.32	4.40	50	19	116	90	0.42	15.1	12.6	79	0.610	1.096	1.093	1.096	1.147	0.131	0.101	0.116	0.140	0.000
20-SEP-94 06:58:35 500 PROCESS	14.90	1.07	18.8	4	1.067	02	102	89	3.27	4.88	50	19	119	99	0.44	13.0	13.9	79	0.620	1.094	1.094	1.094	1.100	0.139	0.106	0.129	0.148	0.000
20-SEP-94 07:03:35 500 PROCESS	14.97	1.07	18.8	3	1.069	04	102	91	3.26	4.90	50	17	119	90	0.45	11.4	15.0	79	0.617	1.090	1.090	1.093	1.130	0.147	0.103	0.117	0.139	0.000
20-SEP-94 07:08:35 500 PROCESS	15.01	1.07	18.9	3	1.060	05	102	92	3.29	4.07	50	17	119	90	0.42	16.4	11.4	79	0.620	1.087	1.081	1.082	1.139	0.156	0.075	0.126	0.153	0.000
20-SEP-94 07:13:35 500 PROCESS	15.00	1.07	19.0	3	1.085	02	101	89	3.37	4.40	50	19	116	99	0.40	17.5	15.2	79	0.615	1.096	1.095	1.093	1.110	0.134	0.090	0.120	0.142	0.000
20-SEP-94 07:18:35 500 PROCESS	15.03	1.08	19.1	3	1.085	02	102	89	3.39	4.75	50	19	116	99	0.39	13.7	16.4	79	0.619	1.093	1.093	1.097	1.143	0.120	0.125	0.122	0.145	0.000
20-SEP-94 07:23:35 500 PROCESS	15.01	1.07	19.1	4	1.088	03	102	90	3.35	4.05	50	19	115	90	0.44	12.6	15.2	79	0.619	1.109	1.088	1.092	1.140	0.130	0.090	0.110	0.144	0.000
20-SEP-94 07:28:35 500 PROCESS	14.98	1.07	19.2	3	1.085	05	102	92	3.32	4.34	50	17	115	99	0.40	13.8	11.3	79	0.620	1.100	1.096	1.090	1.132	0.139	0.099	0.120	0.151	0.000
20-SEP-94 07:33:34 500 PROCESS	15.01	1.07	19.3	2	1.087	05	102	92	3.30	4.07	50	17	115	99	0.40	12.6	17.6	79	0.615	1.095	1.092	1.088	1.143	0.150	0.106	0.122	0.154	0.000
20-SEP-94 07:38:34 500 PROCESS	14.99	1.07	19.4	3	1.089	02	102	89	3.33	4.07	50	19	115	90	0.44	15.1	16.4	79	0.617	1.096	1.090	1.093	1.134	0.147	0.109	0.131	0.150	0.000
20-SEP-94 07:43:34 500 PROCESS	15.01	1.07	19.4	3	1.090	02	102	89	3.37	4.93	50	19	115	90	0.44	15.1	13.9	79	0.618	1.100	1.090	1.090	1.143	0.142	0.105	0.128	0.136	0.000
20-SEP-94 07:48:34 500 PROCESS	14.97	1.07	19.5	3	1.091	03	102	91	3.32	4.61	50	18	114	99	0.38	13.9	11.3	79	0.618	1.090	1.085	1.092	1.143	0.143	0.095	0.121	0.149	0.000
20-SEP-94 07:53:34 500 PROCESS	14.99	1.07	19.6	3	1.078	05	102	91	3.24	4.09	50	16	117	90	0.43	12.6	16.4	79	0.610	1.096	1.093	1.092	1.132	0.139	0.115	0.130	0.150	0.000
20-SEP-94 07:58:34 500 PROCESS	14.97	1.07	19.7	2	1.088	04	101	90	3.29	4.70	50	17	115	90	0.44	17.6	11.3	79	0.615	1.089	1.088	1.081	1.140	0.161	0.116	0.142	0.166	0.000
20-SEP-94 08:03:34 500 PROCESS	14.99	1.07	19.8	3	1.086	02	102	89	3.32	4.35	50	19	115	99	0.42	16.4	11.3	79	0.613	1.093	1.085	1.094	1.134	0.133	0.114	0.128	0.149	0.000
20-SEP-94 08:08:34 500 PROCESS	14.99	1.07	19.8	4	1.076	03	102	89	3.28	4.40	50	19	118	99	0.45	15.0	11.4	79	0.618	1.090	1.089	1.088	1.142	0.151	0.105	0.120	0.139	0.000
20-SEP-94 08:13:33 500 PROCESS	14.98	1.07	19.9	3	1.074	04	102	91	3.23	4.97	50	17	118	99	0.46	12.5	14.0	79	0.619	1.094	1.095	1.094	1.144	0.140	0.106	0.125	0.154	0.000
20-SEP-94 08:18:33 500 PROCESS	14.95	1.06	20.0	2	1.084	04	102	91	3.21	4.93	50	17	115	90	0.41	15.1	12.6	79	0.619	1.095	1.093	1.084	1.137	0.136	0.100	0.126	0.156	0.000
20-SEP-94 08:23:33 500 PROCESS	14.98	1.07	20.1	3	1.089	02	102	89	3.30	4.80	50	19	115	99	0.44	15.0	15.1	79	0.623	1.095	1.092	1.094	1.140	0.134	0.104	0.120	0.145	0.000
20-SEP-94 08:28:33 500 PROCESS	14.94	1.06	20.1	3	1.084	02	101	89	3.32	4.54	50	19	116	99	0.40	17.5	11.4	79	0.610	1.085	1.096	1.094	1.143	0.140	0.099	0.120	0.149	0.000

DATE: 20-SEP-94   LFSPE OXYGEN GENERATION   TIME: 08:33:24
MODE: ON   STATE: PROCESS   STATUS: NORMAL

OXYGEN PRODUCTION RATE: 14.98 LB/DAY   HYDROGEN PRODUCTION RATE: 1.07 LB/DAY
OPERATING TIME: 20.2 HOURS   LAST 400 LEVEL: 3
CG746-1 -2 % LEL   H2V740-1 0.612 V   VLT906-1 1.084 V
CG746-2 -0 % LEL   H2V740-2 1.098 V   VLT906-2 1.062 V
CG746-3 -0 % LEL   H2V740-3 1.089 V   VLT906-3 1.953 V

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
1766 79 AMPS H2PAVG 1.004 V VLT906-6 1.036 V
VLT906-7 1.003 V
1760-1 0.139 A VLT906-8 1.935 V
1760-2 0.112 A VLT906-9 1.062 V
1760-3 0.129 A VLT906-10 1.042 V
1760-4 0.145 A VLT906-11 1.923 V
1900 0.000 A VLT906-12 1.900 V
CELLAVG 1.060 V

20-SEP-94	08:33:33	500	PROCESS	14.98	1.07	20.2	3	1.848	82	102	89	3.34	4.97	58	19	119	90	0.42	12.5	12.6	79	0.610	1.089	1.090	1.085	1.137	0.131	0.106	0.120	0.147	0.000
20-SEP-94	08:34:58	500	PROCESS	11.36	1.42	20.2	3	1.805	81	101	80	3.27	4.38	61	20	114	90	0.44	14.3	12.5	60	0.621	1.103	1.098	1.099	1.130	0.121	0.094	0.112	0.127	0.000
20-SEP-94	08:35:58	500	PROCESS	11.30	1.42	20.3	3	1.790	82	102	80	3.33	4.10	61	20	116	99	0.42	15.0	12.6	60	0.613	1.103	1.104	1.109	1.134	0.110	0.082	0.098	0.127	0.000
20-SEP-94	08:36:58	500	PROCESS	11.35	1.42	20.3	3	1.791	82	101	80	3.33	3.65	61	19	117	98	0.47	17.6	12.6	60	0.609	1.105	1.110	1.095	1.147	0.110	0.081	0.106	0.123	0.000
20-SEP-94	08:37:27	500	OFF	0.00	0.00	20.3	2	0.000	80	99	86	3.15	0.09	67	19	117	98	0.37	17.6	11.4	1	0.602	0.976	0.974	0.962	1.105	0.009	0.004	0.004	0.045	0.000
20-SEP-94	08:37:27	500	OFF	0.00	0.00	20.3	2	0.000	80	99	86	3.15	0.09	67	19	117	98	0.37	17.6	11.4	1	0.602	0.976	0.974	0.962	1.105	0.009	0.004	0.004	0.045	0.000
20-SEP-94	08:37:27	500	OFF	0.00	0.00	20.3	2	0.000	80	99	86	3.15	0.09	67	19	117	98	0.37	17.6	11.4	1	0.602	0.976	0.976	0.962	1.105	0.009	0.004	0.004	0.045	0.000
20-SEP-94	08:37:27	500	OFF	0.00	0.00	20.3	2	0.000	80	99	86	3.15	0.09	67	19	117	98	0.37	17.6	11.4	1	0.602	0.976	0.976	0.962	1.105	0.009	0.004	0.004	0.045	0.000
20-SEP-94	08:37:27	500	OFF	0.00	0.00	20.3	2	0.000	80	99	86	3.15	0.09	67	19	117	98	0.37	17.6	11.4	1	0.602	0.976	0.976	0.962	1.105	0.009	0.004	0.004	0.045	0.000
20-SEP-94	08:37:27	500	OFF	0.00	0.00	20.3	2	0.000	80	99	86	3.15	0.09	67	19	117	98	0.37	17.6	11.4	1	0.602	0.976	0.974	0.962	1.105	0.009	0.004	0.004	0.045	0.000
20-SEP-94	08:43:58	501	OFF	0.00	0.00	20.3	2	0.000	16	17	19	0.00	0.00	4	2	107	98	0.00	17.6	11.4	0	0.380	0.045	0.053	0.045	0.956	0.004	0.005	0.006	0.034	0.000
20-SEP-94	08:44:04	221	FAIL	0.00	0.00	20.3	2	0.000	16	17	19	0.00	0.00	4	2	107	98	0.00	17.7	11.4	0	0.380	0.044	0.046	0.045	0.956	0.004	0.002	0.004	0.037	0.000

UNITED TECHNOLOGIES
HAMILTON STANDARD

APPENDIX B

MASTER TEST PLAN

FOR

ACCEPTANCE TESTING

OF THE

SPE® OXYGEN GENERATOR ASSEMBLY (OGA)

(REFURBISHMENT OF THE TECHNOLOGY DEMONSTRATOR LFSPE OXYGEN GENERATION SUBSYSTEM)

CONTRACT NAS8-38250-23

BY

UNITED TECHNOLOGIES CORPORATION
HAMILTON STANDARD DIVISION
SPACE & SEA SYSTEMS
WINDSOR LOCKS, CT 06096

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MASTER TEST PLAN
REVISION SUMMARY

REVISION	PAGE	DESCRIPTION	DATE
Basic	All	Initial release	4/10/95

TABLE OF CONTENTS

1.0 OBJECTIVE

The purpose of this Master Test Plan is to define a series of tests to be performed on the refurbished SPE Oxygen Generator Assembly (OGA). The SPE OGA has been refurbished to correct operational deficiencies identified during field testing of the unit, and to effect hardware and software changes to the system in order for it to be consistent with the most recent requirements for the International Space Station Alpha (ISSA). The test program defined in this document will verify the integrity of the subsystem hardware and software and will test the effectiveness of the refurbishment.

2.0 REFERENCE DOCUMENTS

The following documents for part of this document to the extent specified herein. If no documentation revision letter is shown, the latest revision will apply.

SVHSER16748	Software Requirements Specification for the SPE OGA Command & Display Unit
SVHSER16750	Software Requirements Specification for the SPE OGA Process Controller

3.0 TEST ARTICLE DESCRIPTION

The SPE OGA, shown schematically in Figure 2.0-1, safely generates oxygen and hydrogen gas from the electrolysis of water. The oxygen gas is generated and delivered at ambient pressure directly to the environment, while the hydrogen is generated at slightly elevated pressure for possible delivery to a CO_2 reduction system. The SPE OGA includes all valves, regulators, sensors and other controls for safe operation of the system.

The cell stack is a liquid anode feed water electrolyzer consisting of 18 SPE water electrolysis cells assembled in a bipolar arrangement between two compression end plates. In the electrolysis process, liquid water is fed to the deionizer bed to ensure the water is free of any ionic contamination (cation and anion) that would be detrimental to cell life. A conductivity sensor located immediately downstream of the deionizer bed monitors water quality and performance of the deionizer bed. Water flow to the module is monitored by a flow switch located immediately upstream of the cell stack.

The oxygen gas produced in the SPE electrolyzer is free of hydrogen, with purities of 99.5% or greater typically measured. Since the SPE OGA has been designed to operate with hydrogen pressure always greater than oxygen pressure, redundant combustible gas sensors located at the oxygen outlet interface constantly monitor the oxygen for hydrogen. A pressure sensor initiates a shutdown should an obstruction occur in the delivery line, and a relief valve provides redundancy in the event of a failed pressure sensor.

The hydrogen-water exiting the cell stack is mostly hydrogen gas by volume with a small amount of liquid water present from protonic pumping in the ion exchange membrane. The hydrogen/water phase separator employs two cavities, each containing a hydrophilic and hydrophobic membrane, and is similar in design and operation to the polishing section of the oxygen/water phase separator. The hydrogen gas passes through the hydrophobic membranes to the hydrogen valve manifold containing the pressure control system, and the water is delivered to the "stripper" section of the phase separator. The stripper section contains four electrochemical hydrogen pumps that remove dissolved hydrogen from the water before it is returned to the water recirculation loop. The electrochemical hydrogen pump uses an SPE membrane and electrode assembly similar to the electrolysis membrane and electrode assembly. The degassed water is subsequently delivered to one of two metal bellows accumulators after dropping in pressure through a negative bias back pressure regulator referenced to hydrogen.

As stated previously, the water exiting from the separator is stored in one of two metal bellows accumulators. Two tanks, in conjunction with the four-way ball valve, are provided for fault isolation in the event of a failure of the hydrogen phase separator that is undetected by either the differential pressure sensor or the stripper cell voltage and current monitors. While water is being fed to one tank from the phase separator the second tank is providing water, as required, to the water recirculation loop via the feed water pump. Employing two tanks in this manner ensures that hydrogen gas is not introduced into the system anode loop, where it would subsequently flow into the oxygen delivery system. As an additional back-up, redundant combustible gas sensors in the delivery system would detect hydrogen carry-over into the anode loop and initiate a system shutdown.

Hydrogen pressure control is maintained by a differential back pressure regulator referenced to nitrogen. The primary hydrogen regulator maintains hydrogen generation pressure 25 psid below nitrogen. Hydrogen pressure control is monitored by a pressure sensor; shutdown of the SPE OGA will occur if hydrogen pressure drifts above or below the normal band of the primary regulator. Mechanical backup for both low and high differential pressure is provided by the redundant differential back pressure regulator and relief valve, respectively. If the primary regulator fails closed and either the pressure sensor or controller fails to detect it, the redundant back pressure regulator will open to ensure nitrogen pressure is maintained above hydrogen. Conversely, should the primary regulator fail open and either the system instrumentation or controller fails to detect it, the nitrogen-hydrogen relief valve opens to introduce nitrogen into the hydrogen circuit to ensure hydrogen pressure is always maintained above oxygen pressure. A three-way solenoid valve at the regulator outlet directs flow to either the hydrogen outlet interface or to the vent interface.

As mentioned previously, nitrogen is used as a reference pressure for the hydrogen pressure control system. The nitrogen is also used as a purge gas during start-up and shutdown transient conditions: during start-up, the nitrogen purges any air from the hydrogen lines and, during shutdown, it purges hydrogen from the same lines. Nitrogen is introduced from the facility through a normally closed solenoid valve. A pressure sensor monitors the nitrogen pressure and controls the operation of the solenoid valve. A nitrogen accumulator provides sufficient purge volume to safely and effectively purge the hydrogen circuit during start-up and shutdown. Purging of the hydrogen circuit is accomplished by removing power to the normally open solenoid valve located between the hydrogen and nitrogen circuit.

Feed water is provided to the SPE OGA from the facility through a normally closed solenoid valve. Operation of this valve is controlled by the water level in the two feed water metal bellows accumulators and the position of the four-way ball valve between the two tanks.

4.0 TEST EQUIPMENT

Testing of the refurbished SPE OGA will be conducted in one of four test cells in the Electrochemical Engineering Laboratory of Building 2 in Windsor Locks, CT. Required services for operating the system are:

- 115 VAC, 60 Hz, 3 phase, 20 amps (provided by Hamilton Standard Rig 216)
- 28 VDC, 15 amps
- IBM Personal System/2, Model 50Z (50-031), with the following minimum attributes:

Operating system:	DOS 3.0
Mass Storage:	Fixed disk and removable disk
Memory:	1 Mbyte RAM
Printer:	Epson FX-1050

- Test stand for fluid control: nitrogen inlet; feed water inlet; hydrogen outlet; oxygen outlet
- Recirculating chiller, 1 GPM water, 65°F, minimum 1000 watts heat rejection

Other test equipment as required to successfully complete the test objectives described herein will be described in the applicable section.

5.0 TEST PLAN

This section defines the tests to be performed on various subassemblies within the SPE OGA prior to final assembly and on the system itself once installation into the test facility is complete. At the conclusion of each phase of the test program the test conductor and a separate reviewer will verify, by signature, that the tests were conducted in accordance with the test plan and the results recorded in the test plan were actual measurements. Red-lining of this document in order to successfully complete the defined test objective is permissible. No other review of this test program is planned or anticipated.

5.1 Electrolysis Cell Stack Testing

Testing of the electrolysis cell stack is conducted prior to installation into the system to verify the mechanical and electrical integrity of the assembly and to measure individual cell performance at the SPE OGA operating conditions.

5.1.1 Cell stack electrical testing

Once assembly of the 18-cell SPE water electrolysis cell stack is completed, the module is tested to verify no electrical shorts are present. This is accomplished by utilizing the cell short check meter, which charges the cell with a battery to a potential of approximately 1 VDC. Once charged, the battery is removed and the cell potential is allowed to decay. If the decay rate is too sudden, an electrical short is present. The short must be repaired prior to initiating any further testing of the module.

1) Attach short check meter to cell #1.

2) Charge the cell to approximately 1 VDC. Remove power to the cell.

3) Observe the cell potential decay rate; if the rate is too sudden, the cell has an electrical short that must be corrected prior to continuing the test program.

4) Repeat steps 1-3 for the remaining cells in the assembly.

Conducted by: ________ Verified by: ________

5.1.2 Cell stack mechanical testing

After the electrical integrity of the 18-cell stack has been verified, the module is brought to proof pressure and is subjected to an overboard and cross-cell leakage test.

5.1.2.1 Overboard proof pressure and leakage test

Proof pressure testing of the electrolysis module will be at a minimum pressure of 2 times the maximum allowable working pressure (MAWP). For the refurbished SPE OGA, the MAWP is 75 psig, resulting in a proof pressure test of 150 psig. Proof pressure testing of the module will be conducted with nitrogen, since the proof pressure limit is well within the normal operating capability of the cell hardware (approximately 400 psig). Once the proof pressure test of the module is completed, the nitrogen pressure is reduced to the MAWP and an overboard leakage test is conducted.

1) Attach a clean, regulated nitrogen supply to the water inlet manifold and the hydrogen-water outlet manifold. The nitrogen source should have a pressure gauge to monitor pressure at the electrolysis module, and a shut-off valve to isolate the nitrogen source from the test item.

2) Cap the oxygen-water and the remaining hydrogen-water outlet manifold.

3) Slowly pressurize the cell stack by increasing the regulator setting in 10 psig increments.

4) Continue to increase pressure until the nitrogen pressure on the gauge equals 150 +2/-0 psig. Maintain this pressure for a minimum of 5 minutes. After the 5 minute period, slowly depressurize the module by decreasing the regulator setting to 1.0 times the MAWP, or 75 psig.

5) Close the shut-off valve to isolate the module from the nitrogen source. Carefully monitor the nitrogen pressure in the module. No decay is allowed in a 30 minute test period.

Conducted by: ____________ Verified by: Robert J. Roy

5.1.2.2 Cross-cell leakage test

Upon successful conclusion of the module leakage test, the nitrogen lines to the cell stack are reconfigured such that only the hydrogen side of the cells is pressurized. The oxygen side of the cell stack is left open to ambient pressure, while the hydrogen side is pressurized with nitrogen to three different pressure levels. The gas flow rate across the 18 cells is measured, and it must be below the normal permeation rate for nitrogen across Nafion membrane at each of the pressure levels. If a higher rate is detected, a leak is present across one or more of the electrolysis cells, either across the cell membrane itself or into one of the fluid headers. A cross-cell leak must be repaired prior to initiating any further testing of the module.

1) Attach a clean, regulated nitrogen supply to either of the two hydrogen-water outlet manifold ports. Cap the remaining port.

2) Attach a plastic line to either the water inlet manifold port or the oxygen-water outlet manifold port. Cap the remaining port.

3) Insert the other end of the plastic line in a beaker filled with DI water. Install an inverted burette in the beaker and fill the burette with

water by using a pipette bulb. Place the plastic line in the open end of the burette.

4) Pressurize the hydrogen side of the cell stack with nitrogen to the pressure levels indicated below; determine the gas flow rate by measuring the volume of water displaced by the nitrogen in the burette. The permeation rate should not exceed the values listed below.

N_2 pressure (psig)	Maximum permeation rate (cc/min/18-cells @ 72°F)	Measured permeation rate (cc/min/18-cells @ 72°F)
50	2.6	2.6
75	4.0	4.0
100	5.3	5.2

5) Slowly depressurize the module and disconnect the nitrogen lines from the module. Refill the manifolds with fresh, DI water, and cap all the fluid ports on the module.

Conducted by: [signature] Verified by: Robert J. Roy

5.1.3 Cell stack operational test

A 100 hour operational test of the 18-cell electrolysis stack is conducted to verify the performance of each of the cells within the assembly. The test is conducted in a separate test rig at the SPE OGA maximum operating current density. Individual cell potentials should fall within the range of approximately 1.70-1.75 Vdc at a current density of 215 amps/ft^2. Water flow rate, operating temperature, and cell current will also be monitored during the conduct of this test.

1) Install the 18-cell module in the mobile test rig. Connect the hydrogen-water outlet manifold to a phase separator, with the hydrogen

delivery to the laboratory vent and the water delivery to the laboratory drain.

2) Verify the test rig data acquisition program is operational.

3) Turn the recirculation pump on; verify a minimum flow rate of 100 cc/min/cell, or 1800 cc/min through the electrolysis module.

4) Turn the electrolysis power supply on and set the current level for approximately 5 amps. Monitor individual cell voltages, ensuring proper charging of each of the 18-cells.

5) Increase the current setting to 50 amps; note the time on the test rig timer. Operate the module for 100 hours. Set the data acquisition system to record performance data of the module at the rate of once per hour.

6) At the conclusion of the test program, verify performance of the cells is within acceptable limits. Remove the module from the test rig and fill the manifold ports with fresh, DI water. Cap all the manifold ports.

Conducted by: Robert J. Roy Verified by: Lawrence C. Moffatt

5.2 Oxygen Phase Separator Testing

Testing of the oxygen phase separator is conducted prior to installation into the system to verify the mechanical integrity of the assembly and to verify the performance of the hydrophilic and hydrophobic membranes.

5.2.1 Mechanical testing

The oxygen phase separator assembly is subjected to a proof pressure test at a minimum pressure of 2 times MAWP for the recirculating water loop, followed by a leakage test at a minimum pressure of 1 times MAWP. For the refurbished SPE OGA, the MAWP of the recirculating water loop is 30 psig, resulting in a proof pressure test requirement of 60 psig. When conducting proof pressure and leakage testing, all three fluid ports (two phase inlet, water outlet and oxygen outlet) are simultaneously pressurized to protect the separator membranes from high differential pressures. Once the proof pressure test of the separator is completed, the nitrogen pressure is reduced to the MAWP and a leakage test is conducted.

1) Attach a clean, regulated nitrogen supply to the oxygen-water inlet manifold, the oxygen outlet manifold and the water outlet manifold. The nitrogen source should have a pressure gauge to monitor pressure at the electrolysis module, and a shut-off valve to isolate the nitrogen source from the test item.

2) Slowly pressurize the separator assembly by increasing the regulator setting in 10 psig increments.

3) Continue to increase pressure until the nitrogen pressure on the gauge equals 60 +2/-0 psig. Maintain this pressure for a minimum of 5 minutes. After the 5 minute period, slowly depressurize the separator by decreasing the regulator setting to 1.0 times the MAWP, or 30 psig.

5) Close the shut-off valve to isolate the separator from the nitrogen source. Carefully monitor the nitrogen pressure in the separator. No decay is allowed in a 30 minute test period.

6) At the conclusion of the leakage test, remove the nitrogen lines and fill the manifold ports with fresh DI water.

Conducted by: ____________ Verified by: Robert J. Roy

5.2.2 Performance testing

Performance testing of the separator is conducted prior to installation of the separator assembly into the system package to verify proper operation of the hydrophilic and hydrophobic membranes. Testing of the oxygen phase separator is conducted in the phase separator development test rig in the Electrochemical Engineering Laboratory in Building 2. The separator is to be tested with only water flowing through the assembly (no oxygen generation), and with a two phase mixture generated from a 12-cell electrolysis stack operating at 150% of the maximum current density level for the OGA 18-cell stack. Membrane pressure drop and water flow rate will be monitored. No water carry-over into the product gas stream is allowed. The amount of gas present in the water outlet stream will be measured; the level of gas present should not exceed that predicted by Henry's Law.

1) Install the oxygen phase separator assembly in the phase separator development test rig.

2) Start the test rig. Verify a water flow rate of 1800 cc/min through the 12-cell electrolysis stack.

3) Record the hydrophilic and hydrophobic membrane pressure drop. Verify outlet streams are clean, i.e. no gas in the water outlet and no water in the gas outlet.

4) Turn the electrolysis power supply on and set the current level to approximately 3 amps. Record the hydrophilic and hydrophobic membrane pressure drop.

5) Slowly increase the current level to the cell stack to 75 amps. Record the hydrophilic and hydrophobic membrane pressure drop. Verify the outlet streams are clean (NOTE: Occasional bubbles in the water outlet stream are expected due to gas evolving from solution due to the drop in pressure across the hydrophilic membranes).

6) Measure the amount of gas being evolved in the water loop due to the drop in pressure by installing a graduated cylinder immediately downstream of the separator water exit. The oxygen evolution rate should not exceed 21 cc/min.

Measured evolution rate: 7 cc/min

7) Cycle the current setting to the electrolysis cell stack; verify proper operation of the phase separator at both extremes of operating current levels.

8) At the conclusion of the test fill the manifold ports with fresh DI water.

Conducted by: [signature] Verified by: [signature]

5.3 Hydrogen Phase Separator Testing

Testing of the hydrogen phase separator is conducted prior to installation into the system to verify the mechanical and electrical integrity of the assembly and to verify the performance of the hydrophilic and hydrophobic membranes.

5.3.1 Electrical testing

Once the hydrogen phase separator is assembled, the electrochemical hydrogen pumps in the stripper section of the separator are tested to verify no electrical shorts are present. This is accomplished by utilizing the cell short check meter in the same manner as it was used to test the electrolysis cells. Each of the four cells is individually charged and, once charged, the cell potential is allowed to decay. If the decay rate is too sudden, an electrical short is present that must be rectified prior to operation of the assembly.

1) Attach short check meter to pump #1.

2) Charge the cell to approximately 1.0 VDC. Remove power to the cell.

3) Observe the cell potential decay rate; if the rate is too sudden, the cell has an electrical short that must be corrected prior to continuing the test program.

4) Repeat steps 1-3 for the remaining cells in the assembly.

Conducted by: Kurt W Curl Verified by: Robert J. Roy

5.3.2 Mechanical testing

The hydrogen phase separator assembly is subjected to a proof pressure at a minimum pressure of 2 times MAWP for the hydrogen-water circuit, followed by a leakage test at a minimum pressure of 1 times MAWP. For the refurbished SPE OGA, the MAWP of the hydrogen-water circuit is 75 psig, resulting in a proof pressure test requirement of 150 psig. When conducting proof pressure and leakage testing, all three fluid ports (two phase inlet, water outlet and hydrogen outlet) are simultaneously pressurized to protect the separator membranes and the electrochemical hydrogen pump membrane and electrode assemblies from high differential pressures. Once the proof pressure test of the separator is completed, the nitrogen pressure is reduced to the MAWP and a leakage test is conducted.

1) Attach a clean, regulated nitrogen supply to the hydrogen-water inlet manifold, the hydrogen outlet manifold and the water outlet manifold. The nitrogen source should have a pressure gauge to monitor pressure at the electrolysis module, and a shut-off valve to isolate the nitrogen source from the test item.

2) Slowly pressurize the separator assembly by increasing the regulator setting in 10 psig increments.

3) Continue to increase pressure until the nitrogen pressure on the gauge equals 150 +2/-0 psig. Maintain this pressure for a minimum of 5 minutes. After the 5 minute period, slowly depressurize the separator by decreasing the regulator setting to 1.0 times the MAWP, or 75 psig.

5) Close the shut-off valve to isolate the separator from the nitrogen source. Carefully monitor the nitrogen pressure in the separator. No decay is allowed in a 30 minute test period.

6) At the conclusion of the leakage test, remove the nitrogen lines and fill the manifold ports with fresh DI water.

Conducted by: ______________ Verified by: ______________

5.3.3 Performance testing

Performance testing of the separator is conducted prior to installation into the system package to verify proper operation of the hydrophilic and hydrophobic membranes during transient and steady state conditions. Testing of the hydrogen phase separator is conducted in the phase separator development test rig in the Electrochemical Engineering Laboratory in Building 2. Since the test rig has no provisions to evaluate the performance of the electrochemical hydrogen pumps, only the performance of the hydrophilic and hydrophobic membranes will be verified. The separator is to be tested at ambient pressure and at the system maximum expected operating pressure of 75 psia (assumes nitrogen reference pressure of 100 psia), and at cell current levels ranging from the standby level of 2 amps to the maximum current level of 50 amps (for the 18-cell SPE OGA stack; since the test rig contains only a 12-cell stack, the cell current levels will be 50% higher, or 3 amps for standby and 75 amps for the maximum current level). Membrane pressure drop at all operating conditions will be monitored to ensure the bubble point of the hydrophilic membrane is not exceeded. No water carry-over into the product gas stream is allowed. The amount of gas present in the water outlet stream will be measured; the level of gas present should not exceed that predicted by Henry's Law.

1) Install the hydrogen phase separator assembly in the phase separator development test rig.

2) Start the test rig. Verify a water flow rate of 1800 cc/min through the 12-cell electrolysis stack.

3) Turn the electrolysis power supply on and set the current level to approximately 3 amps. Record the hydrophilic and hydrophobic membrane pressure drop.

5) Slowly increase the current level to the cell stack to 75 amps. Record the hydrophilic and hydrophobic membrane pressure drop. Verify the outlet streams are clean (NOTE: Occasional bubbles in the water outlet stream are expected due to gas evolving from solution due to the drop in pressure across the hydrophilic membranes).

6) Slowly increase the hydrogen back pressure to approximately 75 psia, ensuring the differential back pressure regulator controlling the two-phase inlet pressure accurately tracks the increasing hydrogen pressure. Record the hydrophilic and hydrophobic membrane pressure drop. Verify the outlet streams are clean.

7) Decrease the current setting to the electrolysis cell stack to 3 amps, the standby current level. Record the hydrophilic and hydrophobic membrane pressure drop.

8) Return the current level to the electrolysis stack to 75 amps. Measure the amount of gas being evolved in the water due to the drop in pressure by inserting the outlet water stream in the opening of an

inverted burette. The hydrogen evolution rate should not exceed 3.1 cc/min when the pressure is dropped from 75 psia to ambient.

Measured evolution rate: 2.7 cc/min

9) Continue to cycle the current setting to the electrolysis cell stack; verify proper operation of the phase separator at both extremes of operating current levels.

10) At the conclusion of the test fill the manifold ports with fresh DI water.

Conducted by: [signature] Verified by: [signature]

5.4 System Check-out Testing

A system check-out test will be performed on the complete SPE OGA prior to the generation of oxygen and hydrogen gas. The test program will include validation of the system installation into the test facility, verification of system communication between the Electrical Interface Box (EIB) and the Command & Display Unit (CDU), proof pressure testing of the system at 2 times MAWP, and leakage testing at 1 times MAWP. Upon successful completion of the system check-out test program, performance testing of the system can be initiated.

5.4.1 Verify installation

Prior to operation of the unit, proper installation into the test facility must be verified. A schematic of the test set-up is included as Figure 5.4.1-1. Both the oxygen and hydrogen outlet lines from the OGA will be connected to their respective interfaces on the fluids control panel. The oxygen relief interface will be allowed to vent to ambient, while the hydrogen vent interface will be supplied connected to a line vented outside of the test cell. Feed water will be supplied

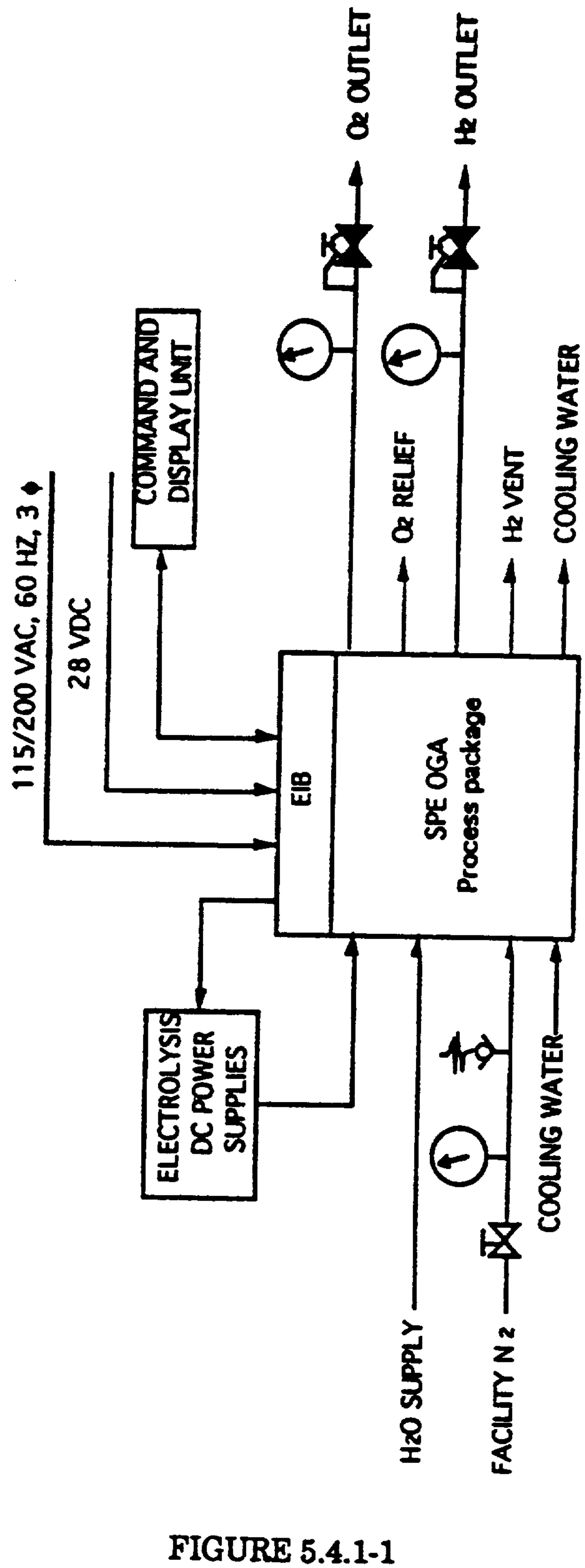

FIGURE 5.4.1-1
SPE OGA TEST SCHEMATIC

by the facility DI water system; regulated nitrogen will be supplied by the facility nitrogen farm. Electrical power will be supplied by Rig 216 for the 115 VAC, 60 Hz, 3 phase power, and by a Kepco power supply for the 28 Vdc requirement. All electrical connections between the electrolysis DC power supply cart and the system will be completed. Chilled water for the OGA liquid-liquid heat exchanger will be supplied by a recirculating chiller at a flow rate of 1 GPM and a temperature of 65°F. The chiller will have a minimum heat rejection capacity of 1000 watts, minimum.

Once installation into the facility is completed, the CDU software will be loaded into an IBM personal computer which will serve as the CDU. A harness linking the EIB to the CDU will be installed, and a line printer to record system performance data will be connected to the computer.

Conducted by: ____________ Verified by: ____________

5.4.2 Electrical Component Check-out Testing

Electrical testing of the system is conducted prior to conducting any other acceptance test to verify proper communication between the system controller in the EIB and the CDU, proper actuation of all electrical components within the system package and to verify proper installation of the wiring harnesses.

5.4.2.1 Controller/Display Check-out

Check-out testing of the CDU display is conducted to verify proper status of all actuated components and proper output of all instrumentation with the system in the OFF mode OFF state.

1) Verify the RS-232 communications cable is properly installed between the CDU and the system EIB.

2) Apply power to the EIB and the CDU. Verify the system is in the OFF mode OFF state.

3) Compare the status of all actuated components with the required status in the Effector Control State Definition Table of the SPE OGA Process Controller Software Requirements Specification (SRS) for the POR state. There shall be no discrepancies.

4) Compare the values of all system parameters on the system parameter screen with the values listed in Table 5.4.2.1-I. All values shall be within the ranges specified.

5) Select the Assembly Configuration screen on the CDU by depressing the F4 key on the keyboard. The Oxygen Delivery configuration shall be set to "CONTINUOUS", and the Hydrogen Delivery configuration shall be set to "VENT".

Conducted by: ____________ Verified by: ____________

5.4.2.2 Component Actuation/Harness Check-out

All electrical components (with the exception of the electrolysis power supply and electrochemical hydrogen pump power supply) are actuated to verify proper sequence by the controller in the EIB and to verify the integrity of the electrical harnesses. Actuation of some of the components in the system is governed by control laws contained in the Effector Control Function section of the SRS. As a result, the controller may override and/or ignore the user's commands.

1) Verify that the system and the CDU power is on and that the system is in the OFF mode OFF state.

TABLE 5.4.2.1-I
SPE OGA OPERATING PARAMETERS

SENSOR	DESCRIPTION	VALUE
W745	Recirculating water loop flow switch	NO FLOW
LEV606	Recirc. water loop bellows accum. level	0-55 in^3
LEV605-1	Feed water bellows accumulator level	0-55 in^3
LEV605-2	Feed water bellows accumulator level	0-55 in^3
CVOLUME	Calculated proton water volume	0-30 in^3
MVOLUME	Measured proton water volume	0-30 in^3
P7061	Oxygen outlet pressure sensor	15 ± 1 psia
P7062	Nitrogen reference pressure sensor	15 ± 2 psia
P7063	Oxygen generation pressure sensor	1 ± 1 psig
DP709	Oxygen phase separator differential	1 ± 1 psid
DP708	Hydrogen phase separator differential	1 ± 1 psid
P749	Hydrogen pressure sensor	1 ± 1 psig
T762-1	Recirc. water loop temperature	Amb. ± 2°F
T762-2	Recirc. water loop temperature	Amb. ± 2°F
T736-1	Heat exchanger water outlet temp.	Amb. ± 2°F
T736-2	Heat exchanger water outlet temp.	Amb. ± 2°F
CG746-1, 2	Combustible gas sensor, ambient	1 ± 1% LEL
CG746-3, 4	Combustible gas sensor, oxygen outlet	1 ± 1% LEL
CS755	Recirc. water loop conductivity sensor	<10umho/cm
I766	Electrolysis cell stack current sensor	1 ± 1 amps
H2V768-1 thru -4	Electrochemical hydrogen pump cell potential	< 1 VDC
I768-1 thru -4	Electrochemical hydrogen pump cell current	.005 ± .005 A
VLT906-1 thru -18	Electrolysis cell potential	< 1 VDC

2) Place the system in the MANUAL mode by depressing the F3 key on the keyboard, followed by selecting the MANUAL mode. Once in the MANUAL mode, depressing the F5 key on the keyboard, followed by entering the correct password, brings up the MANUAL mode menu screen.

3) Actuate, in order and singularly, the components listed in the table. Measure the power requirement of each actuated component and record in Appendix A. Deactivate each component upon verification of its proper operation. Record and resolve any problems encountered during actuation of any component.

4) Return to the Mode Selection screen and place the system in the OFF mode. Verify the system transitions to the OFF mode OFF state.

Conducted by: ______ Verified by: ______

5.4.2.3 Controller Setpoints

The controller in the EIB uses variable setpoints in the control software to allow flexibility during testing of the SPE OGA. Prior to initiating acceptance testing of the system, the correct values for the setpoints are verified.

1) Verify that the system and the CDU power is on and that the system is in the OFF mode OFF state.

2) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard.

3) Verify the Oxygen Requirement is set at 7.40 lb/day, the Light Side is set at 54 minutes and the Dark Side is set at 36 minutes, the respective default settings.

4) View the setpoint data by depressing the F1 key on the keyboard. Verify the values for the setpoints by comparing to the CDU Setpoint Communication Data Packet Tables contained in the Control & Display Unit Communication Inputs section of the Process Controller SRS. Resolve any discrepancies between the values in the table and those displayed on the screen before proceeding further.

Conducted by: Robert J. Roy Verified by: L. C. Moulthrop

5.4.2.4 Verification of System Anomalies

The SPE OGA has been designed to safely generate oxygen and hydrogen gas from the electrolysis of water. System instrumentation, in conjunction with the system controller, constantly monitor system health and performance. If the controller monitors an out-of-limit condition, an automatic shutdown of the system is initiated. Prior to conducting performance testing of the system, all system shutdown levels will be verified. Refer to the Fault Detection Function section of the Process Controller SRS for a listing of all anomalies and the associated shutdown level, and the Anomaly Messages section of the CDU SRS for the corresponding error messages. The procedures for safely conducting the verification of the shutdown levels will be developed at the time of testing. In most instances, the sensor will be replaced with an alternate stimulus that would replicate the signal the controller would expect to receive from that sensor. The stimulus would then be varied until the anomaly was triggered. The system will remain in the OFF mode for the duration of this phase of testing. As each anomaly is verified, confirm the system transitions from the OFF mode OFF state to the OFF mode FAILURE state. The anomaly can be cleared by changing modes for a Level 2 anomaly (transition from the OFF mode to the IMMEDIATE SHUTDOWN mode and back again), or by cycling power to the EIB to reset the controller for a Level 1 anomaly.

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(SEE DATA SHEETS AT END OF TEST PLAN)

5.4.3 Proof pressure test

A proof pressure test of 2 times the MAWP of the fluid circuit with the highest pressure will be conducted on the complete SPE OGA system (for the SPE OGA, the nitrogen reference is the highest). Since the three metal bellows water accumulators have been proof pressure tested previously as part of the Technology Demonstrator program, and they will have already been charged with nitrogen, they will not be subjected to an additional proof pressure test in order to prevent damage to the bellows itself. In addition, the Item 7063 pressure sensor will be removed to prevent damage to the sensor diaphragm, and the Item 163 relief valve outlet will be capped to prevent loss of nitrogen during the test. The isolation valve to the combustible gas sensor housing located at the oxygen outlet of the oxygen phase separator assembly will also be closed to prevent damage to the sensors.

Since the system has been designed to prevent reverse fluid flows and the inadvertent pressurization of one fluid loop with fluid from another, proof pressure and leakage testing of the system must be conducted by introducing the pressurizing fluid at different locations within the system. Pressurizing upstream and downstream of some components (in particular, the membranes of the phase separator which allow one fluid to pass but not the other) ensures they will not be damaged internally during the proof pressure test. Sufficient safeguards exist in the system, however, to prevent damage due to pressure excursions during normal system operation.

1) Verify the outlet to the Item 163, nitrogen relief valve, is capped.
2) Verify Items 080-1 and 080-2, the shut-off valves to the Item 605-1 and Item 605-2, feed water bellows accumulators, are closed.
3) Verify Items 080A-1 and 080A-2, the shut-off valves to the Item 606, recirculating water loop bellows accumulator, are closed.
4) Verify Item 080-3, the shut-off valve for the oxygen phase separator, is closed.

5) Item 051A, nitrogen pressurization solenoid valve, and Items 081-1 and 081-2, feed water solenoid valves, must be energized open in order to pressurize the nitrogen and feed water circuits. Disconnect the electrical harness at connector designation J801, and install the proof pressure test cable to energize the valves from a separate 115 VAC, 60 Hz supply.

6) Attach a regulated nitrogen supply to the system using flexible lines at the following points in the system (refer to Figures 5.4.5-1 and 5.4.5-2):

a) The nitrogen inlet interface of the system package.

b) The hydrogen outlet interface of the system package.

c) The hydrogen vent interface of the system package.

d) The water inlet interface of the system package.

e) The shut-off valve at the oxygen phase separator oxygen outlet (Item 167-7).

f) The shut-off valve downstream of the temperature sensor block housing Items 736-1 and 736-2 (Item 167-1).

g) The shut-off valve upstream of the two-phase inlet to the hydrogen phase separator assembly (Item 167-2).

h) The shut-off valve attached to the hydrogen valve manifold at the top of the system package (Item 167-3).

i) The shut-off valve downstream of the water outlet of the hydrogen phase separator assembly (Item 167-4).

j) The shut-off valve downstream of the Item 105-2 check valve (Item 167-5).

k) The shut-off valve downstream of the oxygen phase separator water outlet (Item 167-6).

7) Disconnect the electrical harness and remove Item 7063, oxygen pressure sensor, from its port; cap the empty port. Reconnect the electrical harness to the sensor. ALSO, REMOVE ITEM 749 FROM ITS PORT AND CAP THE EMPTY PORT. [signature] RL

8) Verify the CDU is installed and the power is on. Turn the system power on and verify the system is in the OFF mode OFF state.

9) During pressurization of the system, monitor Items 708, 709 and ~~[illegible]~~ (differential pressure sensors), Items 605-1, 605-2, and 606 (metal bellows accumulators), and Item 7061 (oxygen pressure sensor). The values deleted a[illegible] ΔP sensor [signature] RL

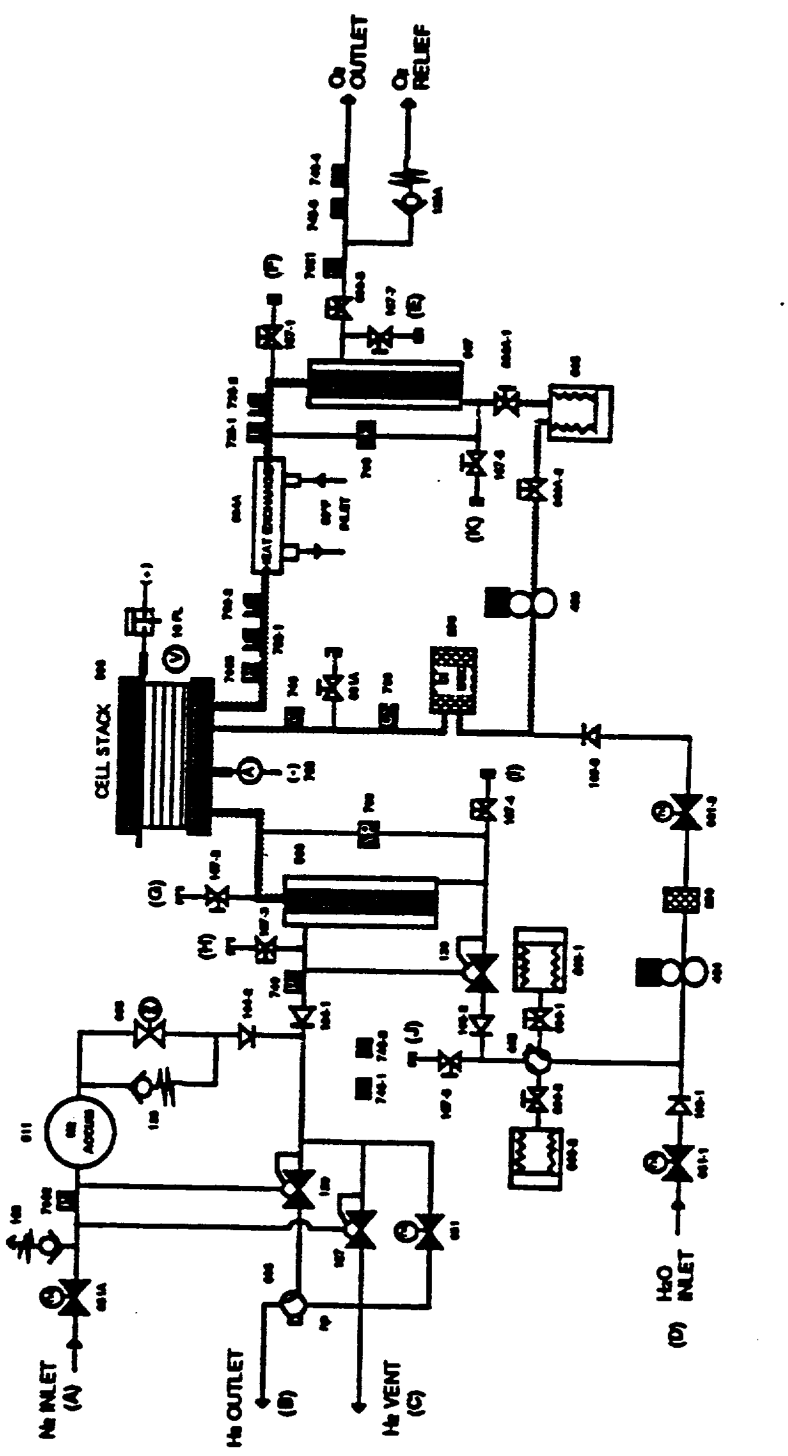


FIGURE 5.4.5-1
SPE OGA PROOF PRESSURE INTERFACE LOCATIONS

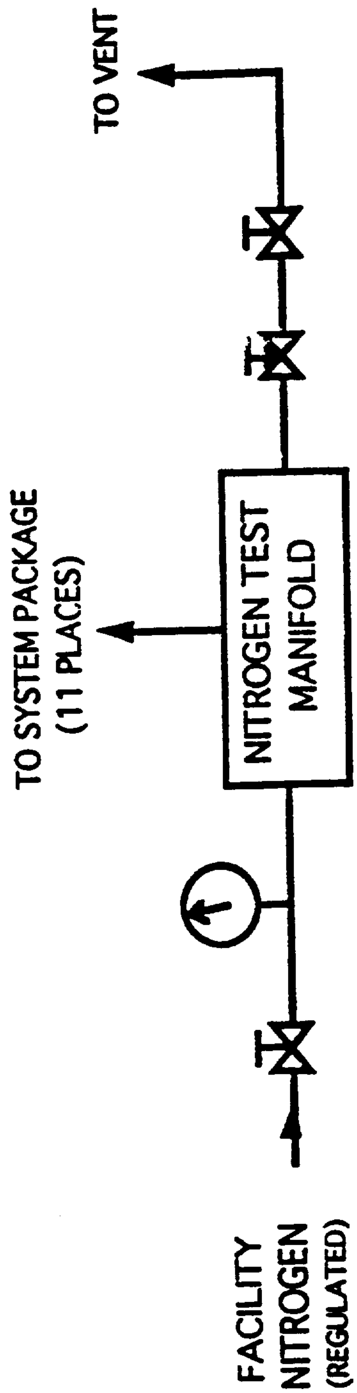


FIGURE 5.4.5-2
PROOF PRESSURE TEST SET-UP

displayed on the CDU should only vary within acceptable electrical noise levels, and should not show any clear trends of increasing values with increasing pressurization. If any trend appears, immediately stop the test, depressurize the system and resolve the discrepancy.

10) Verify the nitrogen regulator is closed and that there is no pressure in the nitrogen test manifold by opening the needle valve in the manifold to exhaust any pressure. Close the needle valve.

11) Open the nitrogen supply valve upstream of the nitrogen test manifold.

12) Verify the shut-off valves from Step 6 (Items 167-1 thru 167-~~5~~ 7) are completely open. Energize the Item 051A, nitrogen solenoid valve, and Items 081-1 and 081-2, water solenoid valves, using the separate harness installed in step 5.

13) Slowly pressurize the system by increasing the regulator setting in 10 psig increments. Allow the pressure readings on the nitrogen pressure gauges and the differential pressure sensors to stabilize prior to increasing pressure.

14) Continue to increase pressure until the nitrogen pressure on the gauge equals 150 +2/-0 psig. Maintain this pressure for a minimum of 5 minutes. After the 5 minute period, slowly depressurize the system by opening the needle valve in the nitrogen test manifold. Monitor the differential pressure sensors to ensure equal depressurization throughout the system. After depressurization, visually check for any permanent deformation. No deformation is allowed.

Conducted by: D.A. [signature] Verified by: [signature]

5.4.4 System leakage test

Leakage testing of the system can be conducted immediately after the proof pressure test by limiting the depressurization level to 1 times MAWP (75 psig). Otherwise, it is necessary to repeat Steps 1-13 as outlined in the proof pressure test procedure.

14) Continue to increase pressure until the nitrogen pressure on the gauge equals 75 +2/-0 psig. Maintain this pressure for a minimum of 5 minutes. After the 5 minute period, close the nitrogen inlet valve and monitor the nitrogen pressure for 15 minutes. No decay in pressure is permissible. If the pressure decays, use leak detection fluid to determine the source of any gas leaks in the oxygen and hydrogen circuits, and search for water leaking in water containing circuits. As an option, the system may be depressurized and recharged with helium, and a helium detector employed to determine the source of any leak. Correct any leak before proceeding further in the test program.

HELIUM SNIFF TEST CONDUCTED PRIOR TO N2 DECAY TEST TO ENSURE LEAK TIGHT HYDROGEN SYSTEM. RR

15) At the conclusion of the test, slowly depressurize the system by opening the needle valve in the nitrogen test manifold. Monitor the differential pressure sensors to ensure equal depressurization throughout the system.

16) Restore the system to its original configuration before proceeding further in the test program.

Conducted by: DA. Kolodia ______ Verified by: Robert J. Roy ______

5.5 Mode/State Transition Verification

The various mode and state transitions allowed for the SPE OGA will be demonstrated to verify proper sequencing of the software controller through the appropriate states within a mode and to verify correct control of system hardware within a state (refer to the Effector Control Function section of the Process Controller SRS). A test schematic for conducting these tests is presented in Figure 5.4.1-1. The Oxygen Delivery configuration and Hydrogen Delivery configuration will remain at their default values of "CONTINUOUS" and "VENT", respectively, and the Oxygen Requirement will remain at its default setting of 7.40 lb/day for the purposes of this test sequence.

5.5.1 PURGE State

The following test procedures verify proper transition of the system from the OFF state to the PURGE state, and from the PURGE state to the PROCESS-VENT state, and demonstrate effector controls applicable to the PURGE state.

1) Turn the power to the system on. Verify the system is in the OFF mode OFF state.

2) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard and select the ON mode. Verify the system transitions from the OFF mode OFF state to the ON mode PURGE state. Upon entering the PURGE state, the following effector controls are active (refer to the Effector Control State Definition Table in the Process Controller SRS):

- V081-1 Fill Control
- V051A & V053 Purge Control
- PS797 On Control

In addition, the recirculating water pump, Item 463, is energized and the flow is set for "RECIRC" gpm throughout all states in the ON mode. Verification of the correct operation of these controls is described below:

V081-1 Fill Control: The feed water inlet valve (Item 081-1) is set to "OPEN" if the feed water accumulator level (LEV605-2 if V003 is

"FILL1/DRAIN2" or LEV605-1 if V003 is "FILL2/DRAIN1") is less than the operating band low limit, "LOWLEV" in^3. The valve is set to "SHUT" if the feed water accumulator level is greater than the maximum drain tank level, "MEDLEV" in^3.

V051A & V053 Purge Control: The facility nitrogen inlet valve (Item 051A) is set to "SHUT" and the system nitrogen purge valve (Item 053) is set to "OPEN" upon entry into the PURGE state. After a period of water recirculation ("ACCTIME" minutes), the facility nitrogen inlet valve is set to "OPEN". The system nitrogen purge valve (Item 053) is set to "SHUT" once the nitrogen inlet valve (Item 051A) has been open for greater than the purge time ("N2PTIME" minutes).

PS797 On Control: The hydrogen phase separator electrochemical hydrogen pumps are energized and charged upon entering the PURGE state. Current to the pumps is limited during initial charging to prevent damage to the power supply. Verify proper charging of the electrochemical hydrogen pumps by monitoring the cell voltages (H2V768-1 thru H2V768-4) and the cell currents (I768-1 thru I768-4); cell potentials should increase steadily to a level of approximately 1.0 VDC while the cell currents should steadily decrease.

3) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard and select the STANDBY mode. Verify the system transitions from the ON mode PURGE state to the STANDBY mode PURGE state. Return the system to the ON mode and verify the state remains in PURGE.

4) Verify the system transitions from the ON mode PURGE state to the ON mode PROCESS-VENT state when the system nitrogen pressure, Item 7062, equals or exceeds the value "STARTP" psia.

5.5.2 PROCESS-VENT State

The following test procedures verify proper transition from the PROCESS-VENT state to the PROCESS state, and demonstrate effector controls applicable to the PROCESS-VENT state.

1) Verify the Item 785, electrolysis power supply, is powered on when the system transitions from the PURGE state to the PROCESS-VENT state.

2) Upon entering the PROCESS-VENT state, the following effector controls are active:

- V003 Recycle Control
- V081-1 Fill Control
- V051A Pressure Control
- Pump 464 Fill Control
- PWR785 On Control
- PS797 On Control

Verification of the correct operation of these controls is described below:

V003 Recycle Control: The feed water accumulator four-way ball valve, Item 003, is set to "FILL1/DRAIN2" if Item 605-2 is the fill tank (V003 is "FILL2/DRAIN1") and the accumulator level LEV605-2 is greater than the tank full limit "HIGHLEV" in^3. Conversely, the feed water accumulator four-way ball valve (Item 003) is set to "FILL2/DRAIN1" if Item 605-1 is the fill tank (V003 is "FILL1/DRAIN2") and the accumulator level LEV605-1 is greater than the tank full limit "HIGHLEV" in^3.

V081-1 Fill Control: Described in section 5.5.1.

V051A Pressure Control: The facility nitrogen inlet valve, Item 051A, is set to "OPEN" when the nitrogen accumulator pressure, P7062, is less than the minimum pressure limit, "OPENV" psia. The facility nitrogen inlet valve, Item 051A, is set to "SHUT" when the nitrogen accumulator pressure is greater than the maximum pressure limit, "CLOSEV" psia.

Pump 464 Fill Control: The feed water pump, Item 464, is set to "ON", the feed water pump flow rate is set to "FEEDGPM" gpm, and the feed pump valve, Item 081-2, is set to "OPEN" if the feed water inlet valve, Item 081-1, is "SHUT", and the recirculation water loop metal bellows accumulator level, LEV606, is less than the minimum operating limit, "LOWACC" in^3. The feed water pump is set to "OFF", the feed water pump flow rate is set to 0 gpm, and the feed pump valve is set to "SHUT" if the feed water inlet valve is "OPEN" or the recirculation water loop metal bellows accumulator level, LEV606, is greater than the maximum operating limit, "HIGHACC" in^3.

PWR785 On Control: The electrolysis power supply, Item 785, is set to "ON" and the current control setting set to "STANDBYI" amps upon entering the PROCESS-VENT state. The current setting is increased "INCREMENTI" amps every "STEPI" seconds until the current equals "NOMI" amps.

PS797 On Control: Described in section 5.5.1.

3) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard and select the STANDBY mode. Verify the system transitions from the ON mode PROCESS-VENT state to the STANDBY mode PROCESS-VENT state. Return the system to the ON mode and verify the state remains in PROCESS-VENT.

4) Monitor the nitrogen accumulator pressure, P7062. When the pressure sensor reading equals or exceeds "HIGHLIM" psia, the timer "VENTTIME" is initiated. At the end of "VENTTIME" minutes, verify the system transitions from the ON mode PROCESS-VENT state to the ON mode PROCESS state.

5.5.3 PROCESS State

The following test procedures verify proper operation of the system in the PROCESS state, and demonstrate effector controls applicable to the PROCESS state.

1) Upon entering the PROCESS state, the following effector controls are active:

- V003 Recycle Control
- V005 Vent Control
- V081-1 Fill Control
- V051A Pressure Control
- Pump 464 Fill Control
- PWR785 On Control
- PS797 On Control

Verification of the correct operation of these controls is described below:

V003 Recycle Control: Described in section 5.5.2.

V005 Vent Control: The three-way hydrogen solenoid valve, Item 005, defaults to the "VENT" position, delivering product hydrogen gas to the hydrogen vent interface. Select the Assembly Configuration screen on the CDU by depressing the F4 key on the keyboard and select "REDUCTION" for the Hydrogen Delivery configuration; the position of the three-way solenoid valve changes from "VENT" to "PRODUCT", redirecting the flow of hydrogen from the hydrogen vent interface to the hydrogen outlet interface for subsequent delivery to a hydrogen reduction system.

V081-1 Fill Control: Described in section 5.5.1.

V051A Pressure Control: Described in section 5.5.2.

Pump 464 Fill Control: Described in section 5.5.2.

PWR785 On Control: Described in section 5.5.2.

PS797 On Control: Described in section 5.5.1.

5.5.4 HOLD State

The following test procedures verify proper transition from the PROCESS state to the HOLD state, and demonstrate effector controls applicable to the HOLD state.

1) With the system in the ON mode PROCESS state, select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard and select the STANDBY mode. Verify the system transitions from the ON mode PROCESS state to the STANDBY mode HOLD state, and that the three-way solenoid valve position V005 is set to "VENT".

2) Upon entering the HOLD state, the following effector controls are active:

- V003 Recycle Control
- V081-1 Fill Control
- V051A Pressure Control
- Pump 464 Fill Control
- PWR785 On Control
- PS797 On Control

Verification of the correct operation of these controls is described below:

V003 Recycle Control: Described in section 5.5.2.

V081-1 Fill Control: Described in section 5.5.1.

V051A Pressure Control: Described in section 5.5.2.

Pump 464 Fill Control: Described in section 5.5.2.

PWR785 On Control: The electrolysis power supply current setting is instantaneously reduced to "STANDBYI" amps. Verify current has been reduced by monitoring the current shunt reading, I766, on the CDU screen.

PS797 On Control: Described in section 5.5.1.

3) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard and select the ON mode. Verify the system transitions from the STANDBY mode HOLD state to the ON mode PROCESS state. The electrolysis power supply will increase the current setting "INCREMENTI" amps every "STEPI" seconds until the PROCESS current setting is achieved.

5.5.5 RECIRC and OFF States

The following test procedures verify proper transition from the PROCESS state to the RECIRC state, and demonstrate effector controls applicable to the RECIRC state.

1) With the system in the ON mode PROCESS state, select the Mode Selection screen on the CDU and select the OFF mode. Verify the system transitions from the ON mode PROCESS state to the OFF mode RECIRC state. Verify the electrolysis power supply PWR785 is turned off, and a nitrogen purge of the hydrogen circuit has been initiated (V053 is set to "OPEN").

2) The recirculating water pump, Item 463, remains "ON" at a flow setting of "RECIRC" gpm to purge the loop of oxygen gas. After "ACCTIME" minutes, the system transitions from the OFF mode RECIRC state to the OFF mode OFF state, and the recirculating water pump (PMP463) is set to "OFF".

3) Select the Mode Selection screen on the CDU and select the IMMEDIATE SHUTDOWN mode. Verify the system transitions from the OFF mode OFF state to the IMMEDIATE SHUTDOWN mode OFF state. Return the system to the OFF mode.

Conducted by: Robert J. Roy Verified by: L. C. Matthews

5.6 **Performance Test**

The purpose of the performance test is to demonstrate continuous and cyclic operation of the SPE OGA, to verify the effectiveness of the refurbishment, and measure system performance parameters such as oxygen production rates, gas quality ,and power consumption of the system. The performance test will be divided into two activities: continuous operation and cyclic operation.

5.6.1 Continuous system operation

The system will be run continuously to demonstrate variable oxygen production capability of the refurbished SPE OGA, measure the purity of the oxygen and hydrogen gases produced, demonstrate optional delivery to the hydrogen outlet interface for possible use by a CO_2 reduction system, and verify proper system restart following a loss of power shutdown.

1) Turn the power to the system and the CDU on. Verify the system is in the OFF mode OFF state. Measure system power while in the OFF state and record in Appendix A.

2) Select the Assembly Configuration screen on the CDU by depressing the F4 key on the keyboard. Verify the Oxygen Delivery configuration is set to "CONTINUOUS" and the Hydrogen Delivery configuration is set to "VENT", the respective default settings.

3) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Verify the Oxygen Requirement is 7.40 lb/day, the default oxygen production rate. Verify the Light Side duration is 54 minutes, and the Dark Side duration is 36 minutes, the respective default settings (NOTE: Since the Oxygen Delivery configuration is set to "CONTINUOUS", the system controller will not change ~~states from the PROCESS state to the HOLD state~~ the current level to the electrolysis module R. Roy 4-23-95 after 54 minutes of operation).

4) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard. Select the ON mode. Verify the system transitions from the OFF mode OFF state to the ON mode PURGE state. Verify the PURGE state transitions to the PROCESS-VENT state, and finally to the PROCESS state. Measure power while in the PURGE state, the PROCESS-VENT state and the PROCESS state and record in Appendix A.

5) While the system is in the PROCESS-VENT and PROCESS state, note the quality of the exiting oxygen and hydrogen gases. Verify both streams are free of liquid water, especially at the beginning of PROCESS-VENT. The hydrogen phase separator has been refurbished to preclude water carry-over during system start-up transient conditions.

6) The refurbished SPE OGA incorporates a liquid-to-liquid heat exchanger that has sufficient capacity to reject the waste heat generated by electrolysis cells operating at a maximum potential of 2.5 Vdc per cell. Monitor performance of the liquid-to-liquid heat exchanger throughout the conduct of this test program to ensure adequate heat rejection at all operating conditions. With cooling water flowing through the heat exchanger at a flow rate of 500 lb/hr (1 gpm) and an inlet temperature of 65°F, the temperature of the two-phase fluid stream exiting the heat exchanger should not exceed 70°F.

7) Attach a wet test meter or other flow measurement device to the oxygen outlet and hydrogen vent interface. Measure and record the oxygen and hydrogen flow rates and calculate the mass flow rate in lb/day.

Verify the oxygen production rate is 7.40 lb/day, minimum, and the hydrogen production rate is 0.93 lb/day, or one-eighth the oxygen rate. Include any calculations in Appendix B.

8) Attach sample cylinders or other sampling device to the oxygen outlet and hydrogen vent interface and obtain samples of each gas. Analyze the oxygen for hydrogen and the hydrogen for oxygen. Record the results in Appendix C.

9) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Change the Oxygen Requirement from 7.40 lb/day to the minimum requirement of 6.66 lb/day. Verify the current setting to the electrolysis cell stack has been reduced (I766).

9) Attach a wet test meter or other flow measurement device to the oxygen outlet and hydrogen vent interface. Measure and record the oxygen and hydrogen flow rates and calculate the mass flow rate in lb/day. Verify the oxygen production rate is 6.66 lb/day, minimum, and the hydrogen production rate is 0.83 lb/day, or one-eighth the oxygen rate. Include any calculations in Appendix B.

10) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Change the Oxygen Requirement from 6.66 lb/day to the maximum requirement of 8.14 lb/day. Verify the current setting to the electrolysis cell stack has been increased (I766).

11) Attach a wet test meter or other flow measurement device to the oxygen outlet and hydrogen vent interface. Measure and record the oxygen and hydrogen flow rates and calculate the mass flow rate in lb/day. Verify the oxygen production rate is 8.14 lb/day, minimum, and the hydrogen production rate is 1.02 lb/day, or one-eighth the oxygen rate. Include any calculations in Appendix B.

12) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Change the Oxygen Requirement from 8.14 lb/day to the nominal requirement of 7.40 lb/day. Verify the current setting to the electrolysis cell stack has been reduced (I766).

13) Select the Assembly Configuration screen on the CDU by depressing the F4 key on the keyboard. Change the Hydrogen Delivery configuration to "REDUCTION". Verify the hydrogen delivery is diverted from the hydrogen vent interface to the hydrogen outlet interface, and V005 has switched from "VENT" to "PRODUCT".

14) Adjust the hydrogen back pressure regulator on the test panel until the hydrogen pressure at the regulator is 25 psig, the maximum back pressure expected for delivery of hydrogen to a CO_2 reduction system. Verify no hydrogen flow at the hydrogen vent interface. Monitor performance of the Item 005 valve during the conduct of the acceptance program; prior testing of the OGA resulted in failure of the solenoid coil in the valve due to operating temperatures which exceeded the maximum design temperature. The valve has since been modified to reduce the operating voltage once the valve has been actuated.

15) The recirculating water loop in the original Technology Demonstrator system experienced pump priming problems at start-up. The refurbishment of the system addressed this problem by reducing the operating pressure of the loop, minimizing pressure drop within the loop, and operating the recirculating water loop bellows accumulator with a fixed nitrogen charge such that the pump inlet never operates at subambient pressure. Verify the effectiveness of the refurbishment by removing power to the EIB, thereby initiating a loss of power shutdown. After approximately 10 seconds, return power to the EIB and verify the system is in the OFF mode OFF state. Select the Mode Selection screen and select the ON mode. Verify the system transitions from the OFF mode OFF state to the ON mode PURGE state. Verify the recirculation pump, Item 463, operates correctly by monitoring the status of the flow

switch, Item 745, and by observing pressure drop DP709 across the oxygen phase separator assembly, Item 907.

16) Repeat a loss of power shutdown, followed by a system restart, a minimum of 5 times to confirm proper pump priming.

Conducted by: ____________ Verified by: ____________

5.6.2 Cyclic system operation

The SPE OGA will be operated cyclically to demonstrate the ability of the system to produce the daily requirement of oxygen while operating only on the light side of the space station orbit. The system will transition to a HOLD state when the dark side of the orbit is simulated, with only a trickle current provided to the electrolysis cell stack to maintain pressure control of the hydrogen system and to offset diffusion losses. System instrumentation and operation of the pumps is also active during the dark side operation. Variable oxygen production capability and the ability of the system to deliver hydrogen to the outlet interface for possible use by a CO_2 reduction system will be demonstrated with the system operating in a cyclical mode.

1) Turn the power to the system and the CDU on. Verify the system is in the OFF mode OFF state.

2) Select the Assembly Configuration screen on the CDU by depressing the F4 key on the keyboard. Set the Oxygen Delivery configuration to "PERIODIC" and the Hydrogen Delivery configuration to "REDUCTION".

3) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Verify the Oxygen Requirement is 7.40 lb/day, the default oxygen production rate. Verify the Light Side duration is 54 minutes, and the Dark Side duration is 36 minutes, the respective default settings.

4) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard. Select the ON mode. Verify the system transitions from the OFF mode OFF state to the ON mode PURGE state. Verify the PURGE state transitions to the PROCESS-VENT state, and finally to the PROCESS state. Measure power while in the PROCESS-VENT state and the PROCESS state and record in Appendix A.

5) Attach a wet test meter or other flow measurement device to the oxygen outlet and hydrogen vent interface. Measure and record the oxygen and hydrogen flow rates and calculate the mass flow rate in lb/day. Verify the oxygen production rate is 12.33 lb/day (7.4 lb/day at a duty cycle of 60%), minimum, and the hydrogen production rate is 1.54 lb/day, or one-eighth the oxygen rate. Include any calculations in Appendix B.

6) After operating in the PROCESS mode for 54 minutes, verify the ~~system transitions from the ON mode PROCESS state to the STANDBY mode HOLD state. Verify the~~ current to the electrolysis cell stack is reduced to "STANDBYI" amps, ~~and the hydrogen delivery valve diverts flow to the hydrogen vent interface (V005 = "VENT"~~). After 36 minutes, verify the ~~system transitions from the STANDBY mode HOLD state to the ON mode PROCESS state. Verify~~ the current to the electrolysis cell stack returns to its original value ~~and the hydrogen delivery valve diverts flow to the hydrogen outlet interface (V005 = "PRODUCT"~~). Operate the system for a minimum of two more cycles at these operating conditions.
NOTE: SYSTEM DESIGNED TO REMAIN IN PROCESS STATE REGARDLESS OF CURRENT LEVEL. IN ADDITION, WE DECIDED TO LEAVE ITEM 005 IN ITS CURRENT CONFIGURATION REGARDLESS OF DARK/LIGHT ORIENTATION. R. Roy 4-28-95

7) Repeat steps 1-6 at the minimum oxygen requirement of 6.66 lb/day~~,~~ and at the maximum value of 8.14 lb/day.

8) With the system operating at the oxygen requirement of 8.14 lb/day, initiate a loss of power shutdown by removing power to the EIB. Return power to the EIB and verify the system is in the OFF mode OFF state.

9) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Verify the Oxygen Requirement is reset to 7.40 lb/day. Select the Assembly Configuration screen on the CDU by

depressing the F4 key on the keyboard. Verify the Oxygen Delivery and Hydrogen Delivery have returned to their default values of "CONTINUOUS" and "VENT", respectively. Select "PERIODIC" for the Oxygen Delivery configuration, and "REDUCTION" for the Hydrogen Delivery configuration.

10) Select the Mode Selection screen on the CDU by depressing the F3 key on the keyboard and select the ON mode. Verify the system transitions from the OFF mode OFF state to the ON mode PURGE state. Verify the recirculation pump, Item 463, operates correctly by monitoring the status of the flow switch, Item 745, and by observing pressure drop DP709 across the oxygen phase separator assembly, Item 907.

11) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Enter 60 minutes for Light Side, and 30 minutes for Dark Side.

12) Once the system transitions to the ON mode PROCESS state, verify the state remains in PROCESS for 60 minutes. Measure and record the oxygen flow rate and calculate the mass flow rate in lb/day. Include any calculations in Appendix B. Verify the oxygen production rate is 11.10 lb/day (7.4 lb/day at a duty cycle of 66%), minimum. Verify the ~~system transitions from the ON mode PROCESS state to the STANDBY mode HOLD state~~ CURRENT LEVEL TO THE ELECTROLYSIS MODULE IS REDUCED TO "STANDBY" AMPS after the 60 minute period. Verify the ~~system transitions from the STANDBY mode HOLD state to the ON mode PROCESS state~~ CURRENT LEVEL RETURNS TO ITS ORIGINAL VALUE AT "STANDBY" AMPS after 30 minutes ~~in the HOLD state~~. (SEE NOTE ON PAGE 43, PARA 6) R. Roy 5-1-95

13) After a minimum of 2 cycles at this duty cycle, select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Enter 54 minutes for Light Side, and 36 minutes for Dark Side. Continue cyclic testing of the system until 3 days prior to the system ship date.

14) At the conclusion of testing, select the Mode Selection screen on the CDU and select the OFF mode. Verify the system transitions from either

the ON mode PROCESS state, or the STANDBY mode HOLD state, to the OFF mode OFF state.

Conducted by: R. J. Roy Verified by: Lawrence C. Monthrop

5.7 Final Testing

Final testing of the system is conducted to verify the unit is ready for delivery to the customer.

5.7.1 Verification of system parameters

1) Turn the power to the system and the CDU on. Verify the system is in the OFF mode OFF state.

2) Select the Assembly Configuration screen on the CDU by depressing the F4 key on the keyboard. Verify the Oxygen Delivery and Hydrogen Delivery configurations are set at their default settings of "CONTINUOUS" and "VENT", respectively.

3) Select the Modify/View Operation screen on the CDU by depressing the F6 key on the keyboard. Verify the Oxygen Requirement is set at its default setting of 7.40 lb/day, and the Light Side and Dark Side settings are at ~~54~~ and ~~36~~ minutes, respectively.
53 37 R. Roy 6-16-95

4) Select pages 2 and 3 of the Modify/View Operation screen on the CDU by depressing the F1 key on the keyboard. Review the setpoint values and compare with those listed in the CDU Setpoint Input Communication Data Packet tables of the Process Controller SRS. Resolve any discrepancies between the values displayed and those in the table.

Conducted by: R. J. Roy Verified by: Lawrence C. Monthrop

DATE: 16-JUN-95 SPE OGA TIME: 13:5[illegible]
MODE: OFF STATE: OFF STATUS: NORMAL

TOTAL OPERATION TIME: 0.0 HRS OXYGEN PRODUCTION RATE: 0.00 LB/DAY
ELECTROLYSIS DUTY CYCLE: 100 % HYDROGEN PRODUCTION RATE: 0.00 LB/DAY

STANDBYI	1.0	INCREMENTI	5.0	STEPI	5.0
RECIRC	0.60	ACCTIME	2.0	HIGHO2SEP	10.0
FEEDGPM	0.024	LOWACC	10.5	HIGHACC	13.0
LOWLEV	6.5	MEDLEV	10.5	HIGHLEV	25.0
STARTP	50.0	HIGHLIM	70.0	N2PTIME	2.0
AMBPRESS	30.0	OPENV	73.0	CLOSEV	75.0
VENTTIME	1.0	H2CELLV	0.9	H2CVTIME	60.0

CURRENT VALUE: 1.0000 NEW VALUE:
ANOMALY:
ADVICE:

[F1] PAGE [F4] ASSY CNFG [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING [F11] EFFECTOR CNFG
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 2 OF 3

DATE: 16-JUN-95 SPE OGA TIME: 13:53:0[illegible]
MODE: OFF STATE: OFF STATUS: NORMAL

TOTAL OPERATION TIME: 0.0 HRS OXYGEN PRODUCTION RATE: 0.00 LB/DAY
ELECTROLYSIS DUTY CYCLE: 100 % HYDROGEN PRODUCTION RATE: 0.00 LB/DAY

O2FAIL1	18.0	O2FAIL2	30.0	DEPRES1	25.0
HIGHN2P	85.0	LEAKTIME	55.0	LEAKTIME2	3.0
HIGHH2P	50.0	LOWH2P	25.0	DELTIME	2.0
HIGHH2SEP1	10.0	HIGHH2SEP2	14.0	T6	40.0
H2SEP	3.0	LOWH2SEP	1.0	T5	30.0
LOWO2SEP	1.0	T3	30.0	T7	10.0
HIGHSDACC	45.0	HIGHSDLEV	30.0	HIMEDLEV	24.0
LOWSDLEV	2.0	T8	10.0	CVGASTOL	7.0
CVRATE	5.0	HIGHCOND	10.0	FILLTIME	5.0
HIGHCELL	2.5	HIGHPUMP	1.3	LOWPUMP	0.1
VTIME	20.0				

CURRENT VALUE: 18.0000 NEW VALUE:
ANOMALY:
ADVICE:

[F1] PAGE [F4] ASSY CNFG [F7] ACKNOWLEDGE [F10] MODIFY OPER
[F2] SUBSYSTEM PARA [F5] MANUAL OPER [F8] DATA LOGGING [F11] EFFECTOR CNFG
[F3] MODE SELECTION [F6] VIEW OPER [F9] EXIT PAGE 3 OF 3

5.7.2 Post-test visual inspection

Inspect the system for any obvious defects due to improper handling during acceptance testing of the unit, or any improper wear of system components. Correct and/or repair any defects prior to shipment.

Conducted by: Robert J. Roy Verified by: Lawrence C. Moulthrop

5.7.3 System weight

Prior to shipment, weigh the SPE OGA system package, and the electrolysis power supply cart. Record in the space below.

System package: 383 lb
Power supply cart: 291 lb.

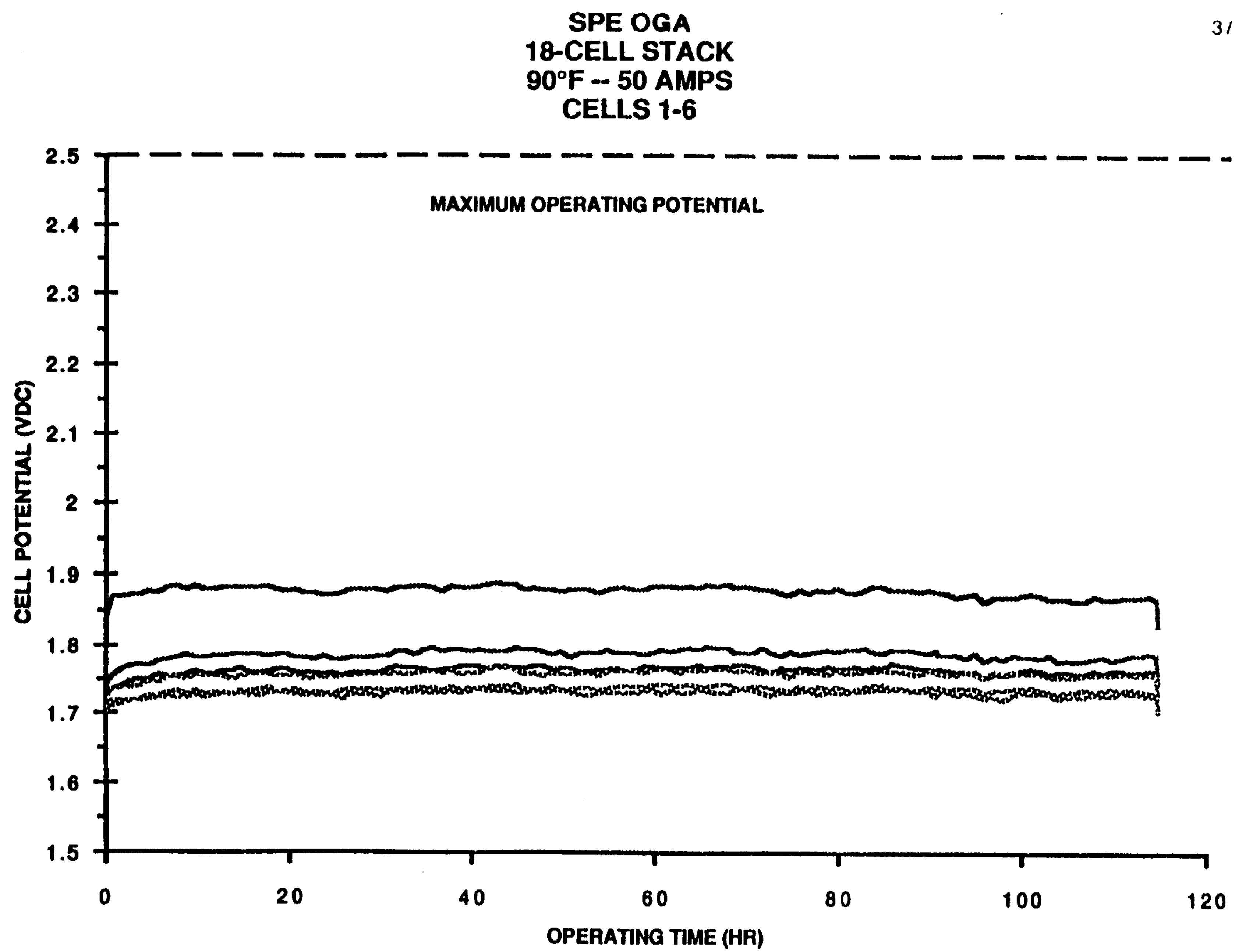
Conducted by: Robert J. Roy Verified by: Lawrence C. Moulthrop

APPENDIX A
SYSTEM POWER REQUIREMENTS

SYSTEM CONFIGURATION			STACK PERFORMANCE			115 VAC, 60 HZ PHASE A			PHASE B			PHASE C			28 VDC		
MODE	STATE	O2 REQUIREMENT (LB/DAY)	CELL AVG (VDC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VAC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VAC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VAC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VDC)	CURRENT (AMPS)	POWER (WATTS)
MANUAL	OFF	N/A	—	—	—												
	EIB					115	1.1								28	0.45	
	003																
	005					115	0.2										
	051					115	0.2										
	051A					115	0.2										
	053					115	0.2										
	081-1					115	0.2										
	463														28	1.7	
	463 & 464														28	2.7	
OFF	OFF					115	1.0										
ON	PURGE	7.4	(463	ONLY)		115	1.7								28	2.5	
ON	PURGE	7.4	(051A	OPEN)		115	1.8								28	2.5	
ON	PURGE	7.4	(053	SHUT)		115	2.0								28	2.5	
ON	PROCVENT	7.4		26		115	4.8		115	2.8		115	2.9		28	2.5	
ON	PROCESS	7.4		26		115	4.9		115	2.8		115	2.9		28	2.7	
ON	PROCESS	7.4															
		60% CYCLE	1.861	44		115	6.8		115	4.9		115	5.0		28	3.0	
- REMEASURE POWER WITH DVM IN MANUAL MODE 5-11-95																	
~~MANUAL~~	~~OFF~~																
	EIB					115	1.04								28	0.45	
	003																
	005					115	0.15										
	051					115	0.16										
	051A					115	0.1[illegible]										
	053					115	0.28										
	081-1					115	0.18										
	463	(0.60 GPM)													28	2.1	
	463 & 464														28	2.7	

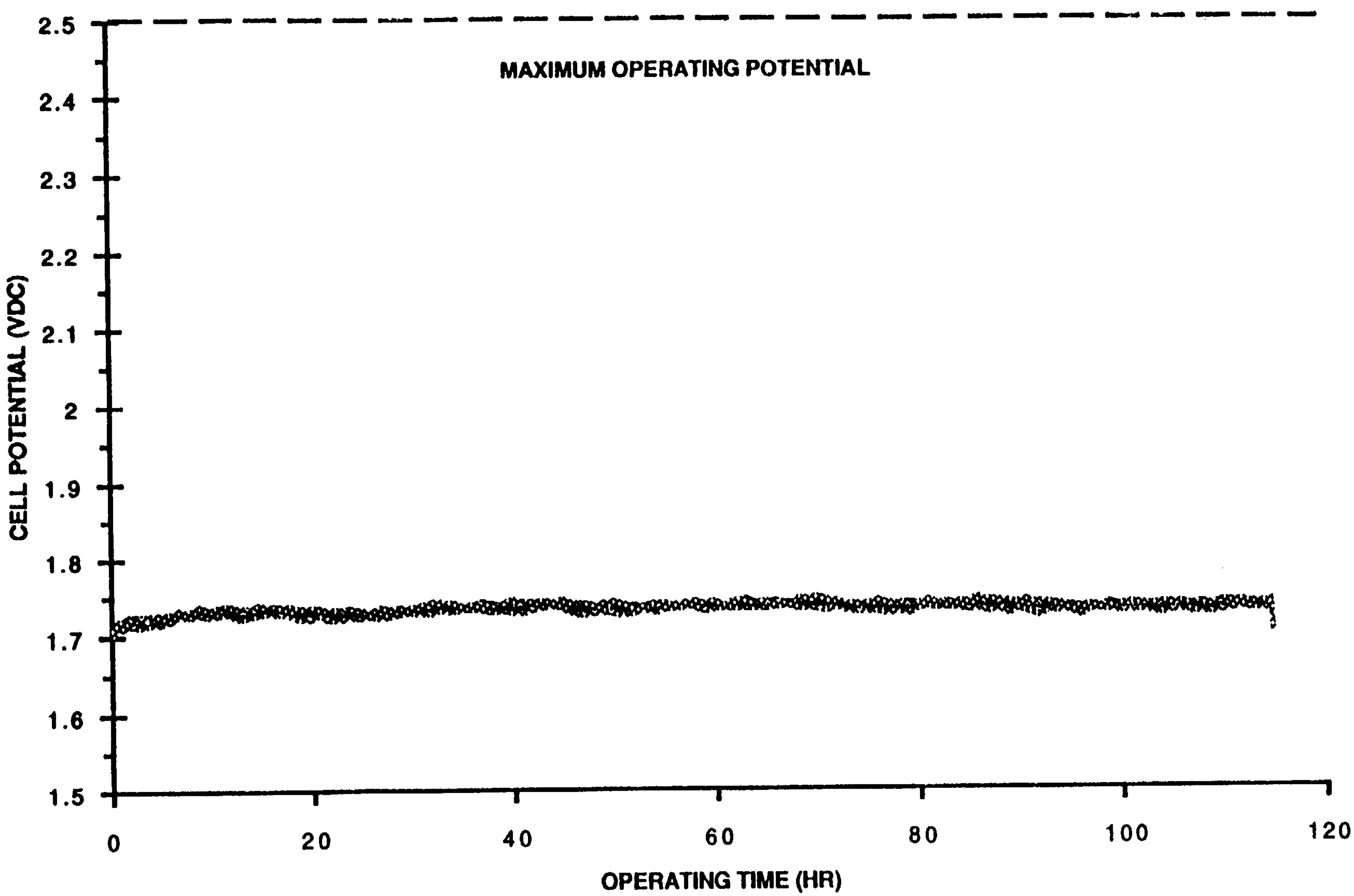
SYSTEM POW. . REQUIREMENTS

SYSTEM CONFIGURATION			STACK PERFORMANCE			115 VAC, 60 HZ									28 VDC		
						PHASE A			PHASE B			PHASE C					
MODE	STATE	O2 REQUIREMENT (LB/DAY)	CELL AVG (VDC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VAC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VAC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VAC)	CURRENT (AMPS)	POWER (WATTS)	POTENTIAL (VDC)	CURRENT (AMPS)	POWER (WATTS)

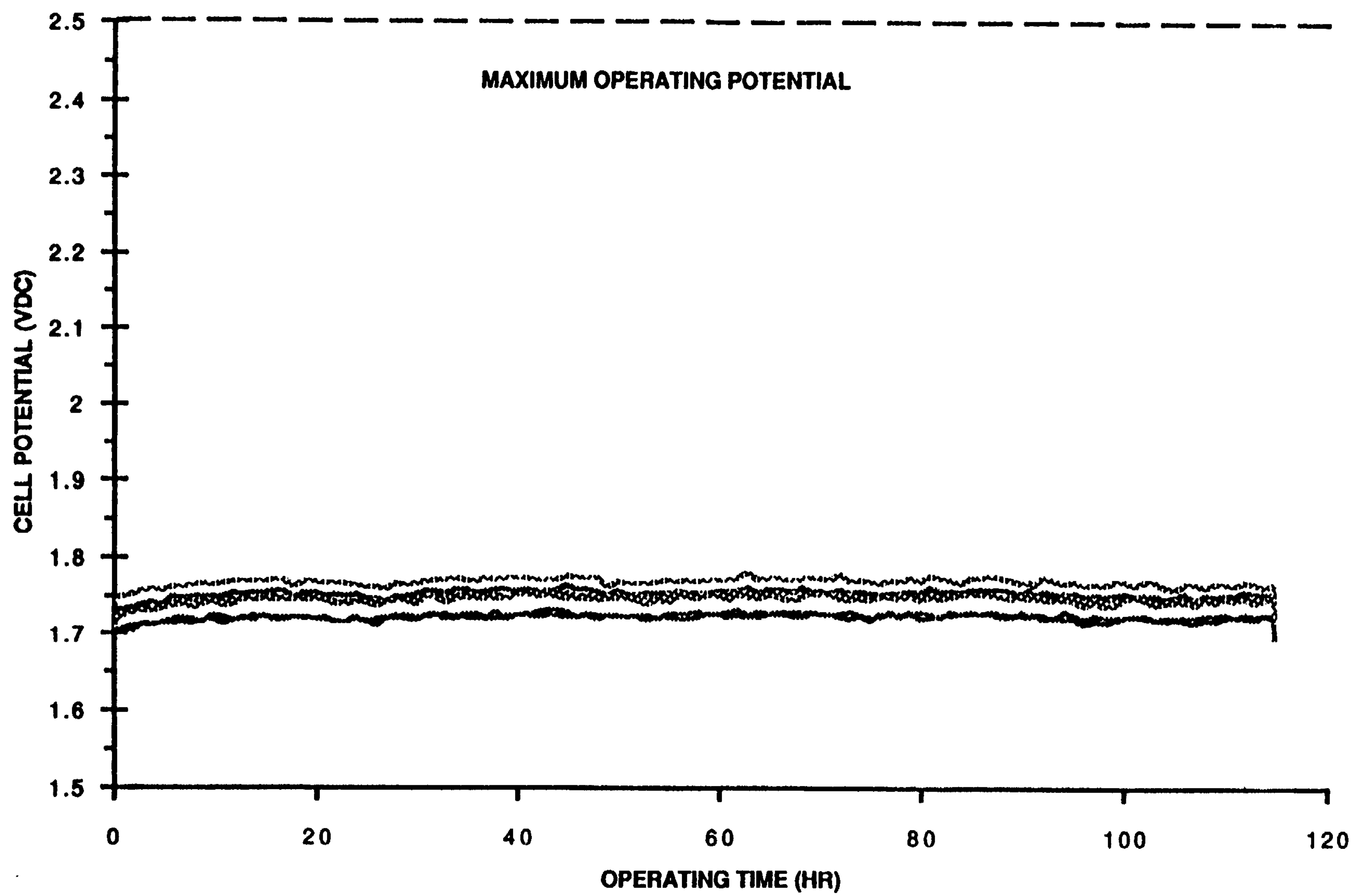

SPE OGA
18-CELL STACK
90°F -- 50 AMPS
CELLS 1-6
MAXIMUM OPERATING POTENTIAL
CELL POTENTIAL (VDC)
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
0
20
40
60
80
100
120
OPERATING TIME (HR)

5/15/95

SPE OGA
18-CELL STACK
90°F -- 50 AMPS
CELLS 7-12



SPE OGA
18-CELL STACK
90°F -- 50 AMPS
CELLS 13-18



APPENDIX B
GAS PRODUCTION RATE CALCULATIONS

$$O_2\,(\text{LB/DAY}) = [(\text{CFM, measured})(P - P^{vap}) / (R)(T + 460)][(32\ \text{lb/lb-mole})(60\ \text{min/hr})(24\ \text{hr/day})]$$

$$H_2\,(\text{LB/DAY}) = [(\text{CFM, measured})(P - P^{vap}) / (R)(T + 460)][(2\ \text{lb/lb-mole})(60\ \text{min/hr})(24\ \text{hr/day})]$$

where:

CFM = gas volumetric flow rate (cubic feet/minute)

P = barometric + wet test meter manometer pressure (psia)

P^{vap} = vapor pressure of water at temperature T (psia)

R = universal gas constant = 10.73 psia - cubic ft / lb mole - °R

T = gas temperature in meter (°F)

TEST REF.	O_2 FLOW (CFM)	O_2 P (PSIA)	O_2 T (°F)	O_2 P^{vap} (PSIA)	O_2 FLOW (LB/DAY)	H_2 FLOW (CFM)	H_2 P (PSIA)	H_2 T (°F)	H_2 P^{vap} (PSIA)	H_2 FLOW (LB/DAY)
5.6.1 PARA 7	.0676	14.40	24°C/75°F	0.43	7.58	.1359	14.53	80	0.51	0.947
5.6.1 PARA 9	.0611	14.40	25°C/77°F	0.46	6.81	.1223	14.53	80	0.51	0.852
5.6.1 PARA 11	.0739	14.40	25°C/77°F	0.46	8.24	.1496	14.53	80	0.51	1.043
5.6.1 PARA 14	–	–	–	–	–	0.1360	14.52	80	0.51	0.947 *
5.6.2 PARA 5	.1156	14.40	29°C/84°F	.58	12.61	.2243	14.48	80	0.51	1.56
5.6.2 PARA 7	.1019	14.43	80°F	.51	11.28	.2022	14.48	80	0.51	1.40
5.6.2 PARA 7	.1239	14.43	80°F	.51	13.72	.2464	1448	80	0.51	1.71
5.6.2 PARA 17	.1015	14.43	78°F	.47	11.31	–	–	–	–	–

* MEASURED @ 25 psig BACK PRESSURE AT TEST PANEL.
NO H_2 BUBBLES OBSERVED @ H_2 VENT INTERFACE.
(REFERENCE SECTION 5.6.1 PARA 13-14)

Table 1. Saturated Steam: Temperature Table

Temp Fahr t	Abs Press. Lb per Sq In. p	Specific Volume Sat. Liquid v_f	Specific Volume Evap v_{fg}	Specific Volume Sat. Vapor v_g	Enthalpy Sat. Liquid h_f	Enthalpy Evap h_{fg}	Enthalpy Sat. Vapor h_g (ΔT v/LB)	Entropy Sat. Liquid s_f	Entropy Evap s_{fg}	Entropy Sat. Vapor s_g	Temp Fahr t
32.0*	0.08859	0.016022	3304.7	3304.7	-0.0179	1075.5	1075.5	0.0000	2.1873	2.1873	32.0*
34.0	0.09600	0.016021	3061.9	3061.9	1.996	1074.4	1076.4	0.0041	2.1762	2.1802	34.0
36.0	0.10395	0.016020	2839.0	2839.0	4.008	1073.2	1077.2	0.0081	2.1651	2.1732	36.0
38.0	0.11249	0.016019	2634.1	2634.2	6.018	1072.1	1078.1	0.0122	2.1541	2.1663	38.0
40.0	0.12163	0.016019	2445.8	2445.8	8.027	1071.0	1079.0	0.0162	2.1432	2.1594	40.0
42.0	0.13143	0.016019	2272.4	2272.4	10.035	1069.8	1079.9	0.0202	2.1325	2.1527	42.0
44.0	0.14192	0.016019	2112.8	2112.8	12.041	1068.7	1080.7	0.0242	2.1217	2.1459	44.0
46.0	0.15314	0.016020	1965.7	1965.7	14.047	1067.6	1081.6	0.0282	2.1111	2.1393	46.0
48.0	0.16514	0.016021	1830.0	1830.0	16.051	1066.4	1082.5	0.0321	2.1006	2.1327	48.0
50.0	0.17796	0.016023	1704.8	1704.8	18.054	1065.3	1083.4	0.0361	2.0901	2.1262	50.0
52.0	0.19165	0.016024	1589.2	1589.2	20.057	1064.2	1084.2	0.0400	2.0798	2.1197	52.0
54.0	0.20625	0.016026	1482.4	1482.4	22.058	1063.1	1085.1	0.0439	2.0695	2.1134	54.0
56.0	0.22183	0.016028	1383.6	1383.6	24.059	1061.9	1086.0	0.0478	2.0593	2.1070	56.0
58.0	0.23843	0.016031	1292.2	1292.2	26.060	1060.8	1086.9	0.0516	2.0491	2.1008	58.0
60.0	0.25611	0.016033	1207.6	1207.6	28.060	1059.7	1087.7	0.0555	2.0391	2.0946	60.0
62.0	0.27494	0.016036	1129.2	1129.2	30.059	1058.5	1088.6	0.0593	2.0291	2.0885	62.0
64.0	0.29497	0.016039	1056.5	1056.5	32.058	1057.4	1089.5	0.0632	2.0192	2.0824	64.0
66.0	0.31626	0.016043	989.0	989.1	34.056	1056.3	1090.4	0.0670	2.0094	2.0764	66.0
68.0	0.33889	0.016046	926.5	926.5	36.054	1055.2	1091.2	0.0708	1.9996	2.0704	68.0
70.0	0.36292	0.016050	868.3	868.4	38.052	1054.0	1092.1	0.0745	1.9900	2.0645	70.0
72.0	0.38844	0.016054	814.3	814.3	40.049	1052.9	1093.0	0.0783	1.9804	2.0587	72.0
74.0	0.41550	0.016058	764.1	764.1	42.046	1051.8	1093.8	0.0821	1.9708	2.0529	74.0
76.0	0.44420	0.016063	717.4	717.4	44.043	1050.7	1094.7	0.0858	1.9614	2.0472	76.0
78.0	0.47461	0.016067	673.8	673.9	46.040	1049.5	1095.6	0.0895	1.9520	2.0415	78.0
80.0	0.50683	0.016072	633.3	633.3	48.037	1048.4	1096.4	0.0932	1.9426	2.0359	80.0
82.0	0.54093	0.016077	595.5	595.5	50.033	1047.3	1097.3	0.0969	1.9334	2.0303	82.0
84.0	0.57702	0.016082	560.3	560.3	52.029	1046.1	1098.2	0.1006	1.9242	2.0248	84.0
86.0	0.61518	0.016087	227.5	527.5	54.026	1045.0	1099.0	0.1043	1.9151	2.0193	86.0
88.0	0.65551	0.016093	496.8	496.8	56.022	1043.9	1099.9	0.1079	1.9060	2.0139	88.0
90.0	0.69813	0.016099	468.1	468.1	58.018	1042.7	1100.8	0.1115	1.8970	2.0086	90.0
92.0	0.74313	0.016105	441.3	441.3	60.014	1041.6	1101.6	0.1152	1.8881	2.0033	92.0
94.0	0.79062	0.016111	416.3	416.3	62.010	1040.5	1102.5	0.1188	1.8792	1.9980	94.0
96.0	0.84072	0.016117	392.8	392.9	64.006	1039.3	1103.3	0.1224	1.8704	1.9928	96.0
98.0	0.89356	0.016123	370.9	370.9	66.003	1038.2	1104.2	0.1260	1.8617	1.9876	98.0
100.0	0.94924	0.016130	350.4	350.4	67.999	1037.1	1105.1	0.1295	1.8530	1.9825	100.0
102.0	1.00789	0.016137	331.1	331.1	69.995	1035.9	1105.9	0.1331	1.8444	1.9775	102.0
104.0	1.06965	0.016144	313.1	313.1	71.992	1034.8	1106.8	0.1366	1.8358	1.9725	104.0
106.0	1.1347	0.016151	296.16	296.18	73.99	1033.6	1107.6	0.1402	1.8273	1.9675	106.0
108.0	1.2030	0.016158	280.28	280.30	75.98	1032.5	1108.5	0.1437	1.8188	1.9626	108.0
110.0	1.2750	0.016165	265.37	265.39	77.98	1031.4	1109.3	0.1472	1.8105	1.9577	110.0
112.0	1.3505	0.016173	251.37	251.38	79.98	1030.2	1110.2	0.1507	1.8021	1.9528	112.0
114.0	1.4299	0.016180	238.21	238.22	81.97	1029.1	1111.0	0.1542	1.7938	1.9480	114.0
116.0	1.5133	0.016188	225.84	225.85	83.97	1027.9	1111.9	0.1577	1.7856	1.9433	116.0
118.0	1.6009	0.016196	214.20	214.21	85.97	1026.8	1112.7	0.1611	1.7774	1.9386	118.0
120.0	1.6927	0.016204	203.25	203.26	87.97	1025.6	1113.6	0.1646	1.7693	1.9339	120.0
122.0	1.7891	0.016213	192.94	192.95	89.96	1024.5	1114.4	0.1680	1.7613	1.9293	122.0
124.0	1.8901	0.016221	183.23	183.24	91.96	1023.3	1115.3	0.1715	1.7533	1.9247	124.0
126.0	1.9959	0.016229	174.08	174.09	93.96	1022.2	1116.1	0.1749	1.7453	1.9202	126.0
128.0	2.1068	0.016238	165.45	165.47	95.96	1021.0	1117.0	0.1783	1.7374	1.9157	128.0
130.0	2.2230	0.016247	157.32	157.33	97.96	1019.8	1117.8	0.1817	1.7295	1.9112	130.0
132.0	2.3445	0.016256	149.64	149.66	99.95	1018.7	1118.6	0.1851	1.7217	1.9068	132.0
134.0	2.4717	0.016265	142.40	142.41	101.95	1017.5	1119.5	0.1884	1.7140	1.9024	134.0
136.0	2.6047	0.016274	135.55	135.57	103.95	1016.4	1120.3	0.1918	1.7063	1.8980	136.0
138.0	2.7438	0.016284	129.09	129.11	105.95	1015.2	1121.1	0.1951	1.6986	1.8937	138.0
140.0	2.8892	0.016293	122.98	123.00	107.95	1014.0	1122.0	0.1985	1.6910	1.8895	140.0
142.0	3.0411	0.016303	117.21	117.22	109.95	1012.9	1122.8	0.2018	1.6534	1.8852	142.0
144.0	3.1997	0.016312	111.74	111.76	111.95	1011.7	1123.6	0.2051	1.6759	1.8810	144.0
146.0	3.3653	0.016322	106.58	106.59	113.95	1010.5	1124.5	0.2084	1.6684	1.8769	146.0
148.0	3.5381	0.016332	101.68	101.70	115.95	1009.3	1125.3	0.2117	1.6610	1.8727	148.0
150.0	3.7184	0.016343	97.05	97.07	117.95	1008.2	1126.1	0.2150	1.6536	1.8686	150.0
152.0	3.9065	0.016353	92.66	92.68	119.95	1007.0	1126.9	0.2183	1.6463	1.8646	152.0
154.0	4.1025	0.016363	88.50	88.52	121.95	1005.8	1127.7	0.2216	1.6390	1.8606	154.0
156.0	4.3068	0.016374	84.56	84.57	123.95	1004.6	1128.6	0.2248	1.6318	1.8566	156.0
158.0	4.5197	0.016384	80.82	80.83	125.96	1003.4	1129.4	0.2281	1.6245	1.8526	158.0
160.0	4.7414	0.016395	77.27	77.29	127.96	1002.2	1130.2	0.2313	1.6174	1.8487	160.0
162.0	4.9722	0.016406	73.90	73.92	129.96	1001.0	1131.0	0.2345	1.6103	1.8448	162.0
164.0	5.2124	0.016417	70.70	70.72	131.96	999.8	1131.8	0.2377	1.6032	1.8409	164.0
166.0	5.4623	0.016428	67.67	67.68	133.97	998.6	1132.6	0.2409	1.5961	1.8371	166.0
168.0	5.7223	0.016440	64.78	64.80	135.97	997.4	1133.4	0.2441	1.5892	1.8333	168.0
170.0	5.9926	0.016451	62.04	62.06	137.97	996.2	1134.2	0.2473	1.5822	1.8295	170.0
172.0	6.2736	0.016463	59.43	59.45	139.98	995.0	1135.0	0.2505	1.5753	1.8258	172.0
174.0	6.5656	0.016474	56.95	56.97	141.98	993.8	1135.8	0.2537	1.5684	1.8221	174.0
176.0	6.8690	0.016486	54.59	54.61	143.99	992.6	1136.6	0.2568	1.5616	1.8184	176.0
178.0	7.1840	0.016498	52.35	52.36	145.99	991.4	1137.4	0.2600	1.5548	1.8147	178.0

*The states shown are meastable

APPENDIX C
GAS PURITY

HSF-56.1H 4/76

REQUEST FOR LABORATORY WORK

THIS SECTION TO BE COMPLETED BY ORIGINATOR

L ORATORY NO. BMP VIII-294

FROM DEPT.-#	REQUESTED BY B. Roy	TEL EXT	DATE	WORK ORDER #	DATE RECEIVED 4-28-95
PART NO.	PART NAME, PROCESS OR TANK SPE-OGA			PMP OR SPEC	ANALYST BMP
LOT OR SER. #	REQUEST FOR H_2 O_2			QUANTITY 2	DATE COMPLETED 4-28-95

TEST REQUIREMENTS (1 PER LINE)	RESULTS
Hydrogen	Oxygen
<500 ppm O_2	<0.5% H_2

APPENDIX D
TEST ANOMALIES

ANOMALY 7.51
(REF. FMEA 5.1)

4.1.4.2 *Processing*

Failure of OGA components shall[1] be detected according to the Fault Detection State Definition Table 4-LIX based on the OGA operating state (STATE).

TABLE 4-LIX FAULT DETECTION
STATE DEFINITION TABLE

BUILT-IN-TEST NAME	STATE								
	POR	OFF	PURGE	PROCESS VENT	PROCESS	HOLD	RECTRC	FAILURE	
CG746_1_FAULT	"RESET"	CG746 Fault Detection	CG746 Fault Detection	CG746 Fault Detection	CG746 Fault Detection	CG746 Fault Detection	CG746 Fault Detection	CG746 Fault Detection	INTRODUCED H_2 GAS TO EACH OF THE SENSORS. VERIFIED LEVEL 2 ANOMALY AT 25% LEL; VERIFIED LEVEL 1 ANOMALY AT 50% LEL. 3-30-95
CG746_2_FAULT	"RESET"								
CG746_3_FAULT	"RESET"								
CG746_4_FAULT	"RESET"								
T762_1_FAULT	"RESET"	T762 Fault Detection	T762 Fault Detection	T762 Fault Detection	T762 Fault Detection	T762 Fault Detection	T762 Fault Detection	T762 Fault Detection	DISCONNECTED ONE OF THE TWO HARNESSES; LEVEL 1 ANOMALY VERIFIED WHEN T > 100°F VERIFIED LEVEL 2 ANOMALY ASSOCIATED W/20°F DIFFERENTIAL IN TEMP SENSOR READINGS. 3-30-95.
T762_2_FAULT	"RESET"								
T762_DIFF_FAULT	"RESET"								
VLT906_LO_FAULT	"RESET"	-	-	VLT906 Low Fault Detection	VLT906 Low Fault Detection	VLT906 Low Fault Detection	-	"RESET" on MODE change	VERIFIED WHEN ATTEMPTING TO RUN SYSTEM 4-3-95 (NO CURRENT TO MODULE).
VLT906_HI_FAULT	"RESET"	VLT906 High Fault Detection	VLT906 High Fault Detection	VLT906 High Fault Detection	VLT906 High Fault Detection	VLT906 High Fault Detection	VLT906 High Fault Detection	VLT906 High Fault Detection	CHANGED VARIABLE "HIGHCELL" TO -1.0 VOLT; LEVEL 2 ANOMALY VERIFIED. RETURN "HIGHCELL" TO 2.5 VOLTS 3-31-95
I766_HI_FAULT	"RESET"	-	I766 High Fault Detection	I766 High Fault Detection	I766 High Fault Detection	I766 High Fault Detection	I766 High Fault Detection	I766 High Fault Detection	WITH SYSTEM IN FAILURE STATE (ANOMALY CODE 217), APPLIED 70 mV SIGNAL TO SHUNT SIGNAL LINE IN POWER SUPPLY CABINET. LEVEL 2 ANOMALY VERIFIED: I766 > 60 AMPS 3-30-
H2V768_LO_FAULT	"RESET"	-	-	H2V768 Low Fault Detection	H2V768 Low Fault Detection	H2V768 Low Fault Detection	-	"RESET" on MODE change	SET "ACCTIME" = 0.1 AND "LOWPUMP" = 5.0; GO TO ON MODE. LEVEL 2 ANOMALY VERIFIED. 4-24-95.
H2V768_HI_FAULT	"RESET"	H2V768 High Fault Detection	H2V768 High Fault Detection	H2V768 High Fault Detection	H2V768 High Fault Detection	H2V768 High Fault Detection	H2V768 High Fault Detection	H2V768 High Fault Detection	CHANGED VARIABLE "HIGHPUMP" TO -1.0 VOLT; LEVEL 2 ANOMALY VERIFIED. RETURN "HIGHPUMP" TO 1.7 VOLTS 3-30-95
P749_LO_FAULT	"RESET"	-	-	P749 Fault Detection	P749 Fault Detection	P749 Fault Detection	-	"RESET" on MODE change	SET "ACCTIME" = 0.1, AND "LOWH2P" = 99 & "DELTIME" = 0.1; GO TO ON MODE; LEVEL 2 ANOMALY VERIFIED (CODE 213 CURRENT) 4-24-95 / SET "ACCTIME" = 0.1 AND "HIGHH2P" … MODE; LEVEL 2 ANOMALY VERIFIED (…
P749_HI_FAULT	"RESET"								
P7062_HI_FAULT	"RESET"	P7062 High Fault Detection	P7062 High Fault Detection	P7062 High Fault Detection	P7062 High Fault Detection	P7062 High Fault Detection	P7062 High Fault Detection	P7062 High Fault Detection	CHANGED VARIABLE "HIGHN2P" TO -5 PSIA; LEVEL 2 ANOMALY VERIFIED. ATTACH DC POWER SUPPLY HARNESS (C = (+), 2 = (-)); INCREASE POTENTIAL UNTIL DISPLAY > 90 PSIA; LEVEL 1 ANOMALY
CG746_LO_FAULT	"RESET"	-	CG746 Sensor Fault Detection	CG746 Sensor Fault Detection	CG746 Sensor Fault Detection	CG746 Sensor Fault Detection	CG746 Sensor Fault Detection	CG746 Sensor Fault Detection	DISCONNECT SENSORS; LEVEL 2 ANOMALY VERIFIED 3-30-95
I766_ON_FAULT	"RESET"	I766 On Fault Detection	I766 On Fault Detection	-	-	-	I766 On Fault Detection	I766 On Fault Detection	IN CONJUNCTION W/ I766_HI_FAULT, LEVEL 1 ANOMALY VERIFIED WHEN SHUNT READING INDICATED CURRENT TO THE STACK IN THE FAILURE STATE. 3-30-95.
P7063_PURGE_FAULT	"RESET"	P7063 Purge Fault Detection	-	-	-	-	P7063 Purge Fault Detection	P7063 Purge Fault Detection	LEVEL 1 ANOMALY VERIFIED DURING ATTEMPT TO START SYSTEM ON 4-3-95.
P7061_HI_FAULT	"RESET"	P7061 High Fault Detection	P7061 High Fault Detection	P7061 High Fault Detection	P7061 High Fault Detection	P7061 High Fault Detection	P7061 High Fault Detection	P7061 High Fault Detection	CHANGED VARIABLE "O2FAIL1" TO -1 PSIA; VERIFIED LEVEL 2 ANOMALY CHANGED VARIABLE "O2FAIL2" TO -1 PSIG; VERIFIED LEVEL 2 ANOMALY 3-30-95
C5755_HI_FAULT	"RESET"	-	C5755 High Fault Detection	C5755 High Fault Detection	C5755 High Fault Detection	C5755 High Fault Detection	C5755 High Fault Detection	C5755 High Fault Detection	CHANGED VARIABLE "HIGHCOND" TO -1 μmho/cm; VERIFIED LEVEL 2 ANOMALY 3-30-95.
P7062_LEAK_FAULT	"RESET"	-	-	P7062 Leak Fault Detection	P7062 Leak Fault Detection	P7062 Leak Fault Detection	-	"RESET" on MODE change	SET "ACCTIME" = 0.1, "LEAKTIME" = 0.1; LEVEL 2 ANOMALY VERIFIED IN PROCESS STATE 4-24-95.
DP709_LO_FAULT	"RESET"	-	-	DP709 Low Fault Detection	DP709 Low Fault Detection	DP709 Low Fault Detection	-	"RESET" on MODE change	SET "ACCTIME" = 0.1, "LOWO2DP" = 5, 73 = 1; GO TO ON MODE LEVEL 2 ANOMALY VERIFIED 4-24-95. (CODE 234)
DP709_HI_FAULT	"RESET"	-	DP709 High Fault Detection	DP709 High Fault Detection	DP709 High Fault Detection	DP709 High Fault Detection	DP709 High Fault Detection	DP709 High Fault Detection	CHANGED VARIABLE "HIGHO2SEP" TO -1 PSID; VERIFIED LEVEL 2 ANOMALY 3-30-95
DP708_LO_FAULT	"RESET"	-	-	DP708 Low Fault Detection	DP708 Low Fault Detection	DP708 Low Fault Detection	-	"RESET" on MODE change	SET "ACCTIME" = 0.1, "LOWH2SEP" = 9, "75" = 1 AND "H2SEP" = 0.1; GO TO ON MODE LEVEL 2 ANOMALY VERIFIED 4-24-95.
DP708_HI_FAULT	"RESET"	-	DP708 High Fault Detection	DP708 High Fault Detection	DP708 High Fault Detection	DP708 High Fault Detection	DP708 High Fault Detection	DP708 High Fault Detection	SET "ACCTIME" = 0.1, "HIGHH2SEP" = -1 AND "76" = 1; GO TO ON MODE LEVEL 2 ANOMALY VERIFIED. 4-24-95
W745_LO_FAULT	"RESET"	-	W745 Low Fault Detection	W745 Low Fault Detection	W745 Low Fault Detection	W745 Low Fault Detection	W745 Low Fault Detection	"RESET" on MODE change	DISCONNECT PUMP HARNESS; GO TO ON MODE; LEVEL 2 ANOMALY VERIFIED IN PURGE STATE 3-30-95
LEV606_LO_FAULT	"RESET"	LEV606 Low Fault Detection	LEV606 Low Fault Detection	LEV606 Low Fault Detection	LEV606 Low Fault Detection	LEV606 Low Fault Detection	LEV606 Low Fault Detection	LEV606 Low Fault Detection	CHANGED VARIABLE "LOWSDLEV" TO 10.in; LEVEL 2 ANOMALY 3-30-95

ANOMALY TO (REF. PARA

BUILT-IN-TEST NAME	POR	OFF	PURGE	PROCESS VENT	PROCESS	HOLD	RECIRC	FAILURE	
LEV606_HI_FAULT	"RESET"	LEV606 High Fault Detection	LEV606 High Fault Detection	LEV606 High Fault Detection	LEV606 High Fault Detection	LEV606 High Fault Detection	LEV606 High Fault Detection	LEV606 High Fault Detection	CHANGED VARIABLE "HIGHSDAC" TO -1 IN³; VERIFIED LEVEL 2 ANOMALY 3-30-95
LEV605_1_HI_FAULT	"RESET"	LEV605 High Fault Detection	LEV605 High Fault Detection	LEV605 High Fault Detection	LEV605 High Fault Detection	LEV605 High Fault Detection	LEV605 High Fault Detection	LEV605 High Fault Detection	CHANGED VARIABLE "HIGHSDLEV" TO -1 IN³;
LEV605_2_HI_FAULT	"RESET"								VERIFIED LEVEL 1 ANOMALY 3-30-95
LEV605_1_LO_FAULT	"RESET"	LEV605 Low Fault Detection	LEV605 Low Fault Detection	LEV605 Low Fault Detection	LEV605 Low Fault Detection	LEV605 Low Fault Detection	LEV605 Low Fault Detection	LEV605 Low Fault Detection	ITEMS 605-1, 605-2 ARE BOTH EMPTY; "LOWSDLEV" = 5.0 IN3;
LEV605_2_LO_FAULT	"RESET"								LEVEL 2 ANOMALY VERIFIED 3-30-95.
LEV605_GAS_FAULT	"RESET"	-	-	LEV605 Gas Fault Detection	LEV605 Gas Fault Detection	LEV605 Gas Fault Detection	-	"RESET" on MODE change	LEVEL 1 ANOMALY VERIFIED ON 4-21-95 WHILE DETERMINING CURRENT CURRENT RAMPING RATE TO PRECLUDE A DETUB-HI-FAULT.
I768_1_HI_FAULT	"RESET"	I768 High Fault Detection	I768 High Fault Detection	I768 High Fault Detection	I768 High Fault Detection	I768 High Fault Detection	I768 High Fault Detection	I768 High Fault Detection	DISCONNECT HARNESS; LEVEL 1 ANOMALY VERIFIED
I768_2_HI_FAULT	"RESET"								WHEN I768-ω > 3.5 AMP 3-31-95
I768_3_HI_FAULT	"RESET"								
I768_4_HI_FAULT	"RESET"								
C8755_LO_FAULT	"RESET"	-	-	C8755 Low Fault Detection	C8755 Low Fault Detection	C8755 Low Fault Detection	-	"RESET" on MODE change	ANOMALY NOT APPLICABLE. SENSOR OUTPUT IS 0.5 VDC - LOW FAULT DETECTION ANOMALY ASSIGNED TO FLOW SWITCH (FAILURE IF SWITCH DETECTS FLOW WHEN PUMP IS OFF).
P7062_FLOW_FAULT	"RESET"	-	P7062 Flow Fault Detection	-	-	-	-	"RESET" on MODE change	SET "ACCTIME" = 0.1 MINUTES; DISCONNECT 7062 HARNESS; ~~...~~ ATTACH POWER SUPPLY (INCREASE POTENTIAL UNTIL P7062 DISPLAYED > 10 ...; LEVEL 1 ANOMALY VERIFIED IN PURGE STATE
LEV605_1_LEAK_FAULT	"RESET"	-	LEV605 Leak Fault Detection	LEV605 Leak Fault Detection	LEV605 Leak Fault Detection	LEV605 Leak Fault Detection	LEV605 Leak Fault Detection	LEV605 Leak Fault Detection	SET VARIABLE "FILLTIME" TO 0.5 MINUTES; DISCONNECT PUMP 463 HARNESS; GO TO ON MODE;
LEV605_2_LEAK_FAULT	"RESET"								LEVEL 1 ANOMALY VERIFIED IN PURGE STATE 3-30-95.
P749_CHECK_FAULT	"RESET"	-	P749 Check Fault Detection	-	-	-	-	"RESET" on MODE change	ATTACH POWER SUPPLY TO P749 HARNESS (B+(?), C+(-)); SLOWLY INCREASE POTENTIAL UNTIL SCREEN DISPLAY; GO TO ON MODE. LEVEL 2 ANOMALY VERIFIED IN PURGE STATE: 4-24-95.

The anomaly list (ANOMALY_LIST) shall[2] be augmented with an integer word list of all active OGA anomalies per the anomaly codes listed in Table 4–LX. A single integer for normal status (code 500) shall[3] be used for the anomaly list (ANOMALY_LIST) if no anomalies are active.

TABLE 4–LX ANOMALY LIST CODE TABLE

BUILT-IN-TEST NAME	PRIORITY WITHIN LEVEL	ACTIVE CODE FOR "LEVEL 1"	ACTIVE CODE FOR "LEVEL 2"
CG746_1_FAULT	1.	101.	201.
CG746_2_FAULT	2.	102.	202.
CG746_3_FAULT	3.	103.	203.
CG746_4_FAULT	4.	104.	204.
T762_1_FAULT	5.	105.	205.
T762_2_FAULT	6.	106.	206.
VLT906_LO_FAULT	7.	-	207.
I766_HI_FAULT	8.	-	208.
VLT906_HI_FAULT	9.	-	209.
H2V768_LO_FAULT	10.	-	210.
H2V768_HI_FAULT	11.	-	211.
T762_DIFF_FAULT	12.	-	212.
P749_LO_FAULT	13.	-	213.
P749_HI_FAULT	14.	-	214.
P7062_HI_FAULT	15.	107	215.
CG746_LO_FAULT	16.	-	216.

DATE	ANOMALY	ACTION TAKEN
4-17-95	CODE 220 - N_2 SUPPLY VALVE (ITEM 051A) IS OPEN TOO LONG	CHANGED VARIABLE "LEAKTIME2" FROM 1.5 MINUTES TO 3.0 MINUTES - LONGER TIME NEEDED DUE TO DROP OF N_2 PRESSURE AT SYSTEM INTERFACE.
	CODE 208 - ELECTROLYSIS MODULE CURRENT (I766) > 60 AMPS. (2 OCCASIONS)	ERROR IN SOFTWARE CODE CORRECTED; NEW PROM BOARD INSTALLED.
4-18-95	CODE 225 - LOW RECIRCULATION FLOW (2 OCCASIONS)	CHANGE FLOW COMMAND ON PUMP FROM 0.48 GPM TO 0.55 GPM
4-20-95	CODE 225 - LOW RECIRCULATION FLOW	CHANGE FLOW COMMAND ON PUMP FROM 0.48 GPM TO 0.55 GPM
	CODE 119 - FACILITY WATER INLET VALVE (ITEM 0B1-1) OPEN TOO LONG	DI WATER SYSTEM WAS TEMPORARILY S/D FOR ROUTINE MAINTENANCE - NO ACTION REQ'D.
	CODE 224 - HIGH ΔP S/D - H_2 PHASE SEPARATOR	TESTING DIFFERENT CURRENT RAMPING RATES - NO ACTION REQUIRED
	CODE 225 - LOW RECIRCULATION FLOW	REDUCE SENSITIVITY OF FLOW SWITCH - APPEARS ANY SLIGHT PERTURBATION IN FLOW INITIATES A SHUTDOWN.
4-25-95	CODE 225 - LOW RECIRCULATION FLOW	CHANGE FLOW COMMAND ON PUMP FROM 0.48 GPM TO 0.52 GPM
4-26-95	CODE 018 - ILLEGAL INTERRUPT REC'D - BITE SHUTDOWN	CHECK CONNECTORS ON BITE BOARD
	CODE 230 - LOW RECIRCULATION LOOP BELLOWS ACCUMULATOR (ITEM 606)	TEMPORARY SOLUTION - CHANGE "LOWSDLEV" TO 1 IN^3 - FINAL SOLUTION TO BE DETERMINED WHEN RELIABILITY ENGINEER RETURNS
	CODE 225 - LOW RECIRCULATION FLOW	CHANGE FLOW COMMAND ON PUMP FROM 0.48 GPM TO 0.52 GPM (RETURNED TO 0.48 GPM AFTER CODE 018 ANOMALY - BATTERY BACK-UP BYPASSED)
	CODE 225 - LOW RECIRCULATION FLOW	CHANGE FLOW COMMAND ON PUMP FROM 0.52 GPM TO 0.55 GPM - WILL NEED TO RE-CHECK FLOW SWITCH SENSITIVITY IN NEAR FUTURE
4-27-95	CODE 230 LOW RECIRCULATION LOOP BELLOWS ACCUMULATOR (ITEM 606)	SEE ABOVE.
	CODE 225 - LOW RECIRCULATION FLOW	SEE ABOVE - NEED TO CHECK FLOW SWITCH SENSITIVITY
4-29-95	CODE 225 - LOW RECIRCULATION FLOW	SEE ABOVE - RE-CHECK SWITCH ON MONDAY, 5/1.
5-1-95	CODE 225 - LOW RECIRCULATION FLOW	SWITCH RECALIBRATED FOR LOW FLOW S/D AT 0.27 GPM - S/D VERIFIED - NO ACTION REQ'D. PERMANENTLY CHANGED FLOW COMMAND TO 0.60 GPM - NO IMPACT ON H/X SIZING.

DATE	ANOMALY	ACTION TAKEN
5-4-95 5-5-95	CODE 225- LOW RECIRCULATION FLOW	REMOVE DI BED - CONCERN IT BEHAVED AS A GAS TRAP
5-7-95	CODE 225 - LOW RECIRCULATION FLOW (2 OCCASIONS)	ROTATE OXYGEN PHASE SEPARATOR 90° SUCH THAT IT NO LONGER BEHAVES AS A 1-G GAS TRAP
	CODE 112 - FEED WATER BELLOWS NOT FILLING PROPERLY (RATE IMBALANCE)	OCCURRED WHILE IN MANUAL MODE WHEN ITEM 003 ROTATED - ERROR IN S/W CODE - CODE FIXED
5-8-95	CODE 210 - LOW H_2 PUMP VOLTAGE	NEED TO TROUBLESHOOT CIRCUIT - TO BE DONE AT A LATER DATE.
5-9-95	CODE 225 - LOW RECIRCULATION FLOW	INCREASE TIMER SETPOINT FROM 10 TO 20 SECONDS
	CODE 210 - LOW H_2 PUMP VOLTAGE	INSTALLED SEPARATE POWER SUPPLY; BYPASS CONTROL CIRCUIT (MANUAL RAMPING); PERMANENT REPAIR AFTER CUSTOMER VISIT
	CODE 207 - LOW ELECTROLYSIS CELL VOLTAGE	E28 BREAKER WAS TURNED OFF TO EFFECT INSTALLATION OF SEPARATE POWER SUPPLY - TURN BREAKER BACK ON.
	CODE 216 - COMBUSTIBLE GAS SENSOR MALFUNCTION	DEMONSTRATED FAILURE FOR CUSTOMER VISIT
5-12-95	FAILED POWER SUPPLY / CIRCUIT; LOW RECIRCULATION FLOW S/D'S.	- BEGIN WORK TO REPAIR/REPLACE DAMAGED HARDWARE IN POWER SUPPLY CKT - INSTALL TRANSLUCENT PFA TUBING IN RECIRCULATION LOOP, VCR W/CAMERA AND DATA STRIP CHART RECORDER TO TROUBLESHOOT LOW FLOW CONDITION. - WORK COMPLETED ON 5-19.
5-19-95	CODE 213 - LOW H_2 PRESSURE	ITEM 053 (N.O.) PURGE VALVE FAILED DUE TO BURNED OUT COIL. REPLACE VALVE W/ SPARE N.O. VALVE & RESTART. VALVE RETURNED TO VENDOR FOR REPAIR.
5-21-95	CODE 112 - IMPROPER BELLOWS FILLING ~~[illegible]~~ (RATE IMBALANCE)	SUSPECT NOISE ON DATA LINE - DATA DOES NOT SUPPORT FAILURE CONDITION. TIMER ESTABLISHED TO PREVENT SPURIOUS S/D'S.
5-23-95	NO SHUTDOWN, BUT TEMPORARY LOSS OF FLOW RECORDED (STRIP CHART AND VCR CAMERA)	RECORDED GAS SLUGS EXITING BELLOWS ACCUMULATOR. REPLUMB LOOP TO DIRECT FLOW FROM PHASE SEPARATOR OUTLET TO PUMP INLET, W/ BELLOWS IN TEE CONFIGURATION. BELLOWS BEHAVING AS GAS TRAP DUE TO CONFIGURATION OF PORTING AT TOP OF TANK.

DATE	ANOMALY	ACTION TAKEN
5-28,29-95	CODE 112 - FEED WATER BELLOWS NOT FILLING PROPERLY (HIGH LEVEL)	BELLOWS CONTROL LAWS MODIFIED TO REDUCE TOTAL OPERATING VOLUME IN ORDER TO PREVENT OVERFILLING
6-3-95	CODE 207 - LOW ELECTROLYSIS CELL VOLTAGE	SUSPECT NOISE ON SIGNAL LINE - NO DATA TO SUPPORT LOW CELL VOLTAGE - ADDED TIMER TO ANOMALY CODE.
6-4-95	CODE 223 - LOW HYDROGEN PHASE SEPARATOR ΔP.	MODIFIED SETPOINT TO ALLOW MINIMUM ΔP OF 1 PSID.
6-9-95	CODE 112 - FEED WATER BELLOWS NOT FILLING PROPERLY (RATE IMBALANCE)	SLIGHTLY MODIFIED CONTROL LAWS TO ALLOW ADDITIONAL TOLERANCE ON TANK FILL RATE (MEASURED VS. PREDICTED).