

Date of Issue: November 6, 2018

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET HARRISBURG, PENNSYLVANIA

BULLETIN NO. 7
on

Project No. GESA 2018-1 – REQUEST FOR QUOTES FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF CORRECTIONS, SCI HOUTZDALE, HOUTZDALE, PENNSYLVANIA Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

QUOTE SUBMISSION DEADLINE: TUESDAY NOVEMBER 20, 2018
TIME OF OPENING: 2:00 PM

QUESTIONS

1. What is the daily average of hot & cold meals served in the cafeteria? **All meals served are hot meals and approximately 6,700-7,000 are served daily.**
2. Appendix T of the RFQ, ECM # 7 states, "Depending upon the ECM selected in items 2, 3, and 5..." Please confirm the referenced ECMs are correct. **The reference should be 3a, 3b, and 6.**
3. Appendix T of the RFQ includes ECM #8 Roof Replacement/ Insulation which states: "Existing roof systems require replacement with new single ply membrane systems and additional insulation to improve building energy efficiency. All buildings are included." However, RFQ Appendix K includes information for each building at the institution. Each building includes a section with "Repairs or Renovations Required" in which only Building 7- Utility Plant, Garage, etc. has the roof included. So, are all buildings included? **SCI-Houtzdale would like all buildings to be included given the age and condition of the roofs.**
4. Please confirm that the water consumption data is recorded in Gallons of water and not mGallons as listed. **That is correct, the data is in gallons.**
5. The provided utility information doesn't include any chiller plant data. Please provide available monthly chiller plant data including, at a minimum, kW and kWh for the chiller plant, ton hours. **Please see the chiller plant logs from 2015 attached as "Attachment 1" to this bulletin.**
6. In the provided utility information, the report for Mar-17 states said month had -1 CDD. Please update the CDD to an accurate value. **This was a typing error; it should be 1 CDD.**

7. Where does the main electrical feed come in to the institution? **The main utility power enters into the Central Utility plant's east side via overhead lines from Penelec. The power supplied is a 34,500-volt overhead line from Penelec to the institution's overhead air switch. From there it goes underground to 4160 transformers on the east side of the Central Plant, then underground into the Central Utility Plant's switchgear and breakers. From the Central Plant, all power goes through underground vaults and manholes supplying power to all HVLs and transformers.**
8. During our first site visit SCI Houtzdale staff mentioned roof core samples being taken recently. We are not sure who took these samples, but, could the institution gather and share the results of the core samples? **The samples were taken by Grant Marshman from C&D Waterproofing. We did not receive the results of samples taken.**
9. We have read response to Question #5 Bulletin #5 and have an understanding of how the structure of the water contract works. To calculate the unit cost for water with the true up after 6 months, is it acceptable to assume the rate is the annual cost divided by the annual usage or is there a rate the facility would like to use for this analysis? **The rate used is projected Authority expenses prorated with the actual usage of the prison, with a 6-month "true up" feature. In other words, if the prison uses 51% of the annual water flow, the prison pays 51% of the actual expenses. The "rate" fluctuates based upon the changes in actual expenses, which in some years can include expenses for capital projects. To calculate savings, we recommend using the average rate over the past three years at \$6.46 per mgal.**
10. The sewer rates appear to be the same as the water utility, with 6 months of consistent cost with a change for the last 6 months. Can detail be provided in how this utility is billed? **The rate charged to the prison is consistent for 12 months of the fiscal year, running from July 1 to June 30. While there are some monthly changes to the monthly billed cost, likely due to surcharges of flow and pollutant levels, we provide a sewer unit cost to use in your savings calculations as noted in item b. below.**
 - a. Is it similar to the water or based on the water consumption? **The rate used is estimated Authority expenses prorated with the estimated prison flow and past pollutant loading values. In other words, three items can affect the rate: 1) the sewage flow, 2) the pollutant values of BOD, nitrogen and phosphorus in the flow, and 3) the fluctuation of the Authority expenses, which in some years can include expenses for capital projects.**
 - b. Also, to calculate the unit cost for sewer with the cost change after 6 months, is it acceptable to assume the rate is the annual cost divided by the annual usage or is there a rate the facility would like to use for this analysis? **Because a reduction in flow impacts only 25% of the billed cost, we recommend using a savings rate of \$1.62 per mgal (derived from \$6.46/mgal x 0.25)**

11. Please provide one copy of a recent bill for all utilities not already supplied, including coal, fuel oil, propane, and water and sewer. **Utility bills have been attached as "Attachment 2" to this bulletin.**



Rebecca Tomlinson, RFQ Coordinator
Energy & Resource Management Office

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN BY EMAIL RESPONSE TO BECKY TOMLINSON AT: retomlinso@pa.gov

**ATTACHMENT 1
TO
BULLETIN 7
FOR
GESA 2018-1 SCI HOUTZDALE**

CHILLER PLANT LOGS

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. MAY 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	5/10	5/11	5-12	5/12	5/15
	TIME	2030	8:30	0430	730	1310
Unit is Running OK	OK	OK	OK	OK	OK	OK
Leaving Evap. (Temp.)	40.1	46.9	44.4	42.6	41.0	
Entering Evap. (Temp.)	43.7	44.0	49.6	49.9	51.4	
Entering Cond. (Temp.)	73.9	24.4	82.8	80.7	72.6	
Leaving Cond. (Temp.)	76.6	23.4	88.1	82.0	79.7	
Evaporator (Refrig. Temp.)	39	41	38	40	38	
Suction Line (Refrig. Temp.)	39	41	39	41	38	
Superheat (Refrig. Temp.)	-0.5	0.4	0.3	0.5	1.1	
Discharge (Refrig. Line Temp.)	85	91	88	89	82	
Condenser (Refrig. Temp.)	74	74	89	88	80	
Liquid Line (Refrig. Temp.)	75	28	87	82	76	
Liquid Subcool (Refrig. Temp.)	-0.7	0.1	1.0	1.0	4.2	
Cond. Approach (Temp.)						
Evap. Pressure (PSIG)	36	33	34	24	33	
Cond. Pressure (PSIG)	79	82	103	82	89	
Lift Pressure (PSIG)	42	49	69	49	56	
Motor % RLA	52	62	76	68	78	
Motor Amps						
Oil Feed Temp.	97	98	97	97	98	
Oil Sump Temp.	119	119	115	116	115	
Oil Gage Pressure	147	145	150	145	144	
Oil Differential Pressure	115	113	113	113	111	
Operating Hours	800	800	810	826	830	
Number of Starts	59	60	64	65	68	
Start Hours Ago						
Unit Running OK	OK	OK	OK	OK	OK	

OPERATING CONDITION	DATE	5/10	5/11	5-12	5/12	5/15
	TIME	2030	8:30	0430	9:30	1310
Low Pressure Unloading	OFF	OFF	OFF	OFF	OFF	OFF
Max. Amp Limit	100	100	100	100	100	
Remote Amp Limit	OFF	OFF	OFF	OFF	OFF	
Manual Amp Limit	OFF	OFF	OFF	OFF	OFF	
Unit Running OK	OK	OK	OK	OK	OK	
Leaving Evap SPT.	40	40	40	40	41.0	
Reset Leaving SPT.		NA	NA	NA	NA	
Remote Reset SIG.		NA	NA	NA	NA	
Max. Amp Limit	40	40	40	40	100	
Remote Amp Limit		NA	NA	NA	NA	
Remote Amp Signal		NA	NA	NA	NA	
Soft Load Limit	40	40	40	40	40	
Beginning Amp Limit		NA	NA	NA	NA	
Ramp Up Time		NA	NA	NA	NA	
Now Fault	NA	NA	NA	NA	NA	
Last Fault	EPL	EPL	EWFL	HMT	EWFL	
2nd Last Fault	EPL	EWFL	EWFL	EPL	EWFL	
3rd Last Fault	EWFL	EPL	EWFL	EWFL	EWFL	
4th Last Fault	EWFL	EPL	EWFL	EWFL	EWFL	
5th Last Fault	EWFL	EPL	EPL	EWFL	EWFL	
6th Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	
7th Last Fault	EWFL	EWFL	EPL	EPL	HMT	
8th Last Fault	EWFL	EWFL	EWFL	EWFL	EPL	
Evap. Water PD (PSIG)						
Cond. Water PD (PSIG)						

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %; Disable Lag _____ %; Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. _____

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	5/17	5/17	5/18	5/18	5/18	OPERATING CONDITION	DATE	5/17	5/17	5/18	5/18	5/18
	TIME	9:15	2100	0330	1230	3100		TIME	9:15	2100	0330	1230	3100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.5	41.1	41.1	41.1	40.6	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		50.5	53.4	47.8	48.9	48.5	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		74.3	71	73.2	80.0	76.4	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		80.4	87.6	77.7	85.8	82.0	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	35	34	38	38	Leaving Evap SPT.		40	40	40	41.0	41.0
Suction Line (Refrig. Temp.)		29	36	39	38	38	Reset Leaving SPT.		NA	NA	NA	-	NA
Superheat (Refrig. Temp.)		1.0	0.3	0.8	0.0	0.1	Remote Reset SIG.		NA	NA	NA	-	NA
Discharge (Refrig. Line Temp.)		81	91	79	87	83	Max. Amp Limit		40	40	40	100	100
Condenser (Refrig. Temp.)		82	90	86	86	82	Remote Amp Limit		NA	NA	NA	-	NA
Liquid Line (Refrig. Temp.)		78	82	78	85	80	Remote Amp Signal		NA	NA	NA	-	NA
Liquid Subcool (Refrig. Temp.)		34	7.1	0.6	1.0	2.1	Soft Load Limit		40	40	40	40	NA
Cond. Approach (Temp.)							Beginning Amp Limit		NA	NA	NA	-	NA
Evap. Pressure (PSIG)		34	32	34	34	34	Ramp Up Time		NA	NA	NA	-	NA
Cond. Pressure (PSIG)		90	105	86	98	91	Now Fault		NA	NA	NA	-	NA
Lift Pressure (PSIG)		56	73	52	64	57	Last Fault		NF	NF	NF	NF	NF
Motor % RLA		73	95	68	73	68	2nd Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Motor Amps							3rd Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Feed Temp.		97	100	96	98	97	4th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Sump Temp.		114	117	114	116	115	5th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Gage Pressure		145	146	146	148	146	6th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Differential Pressure		111	109	113	112	112	7th Last Fault		HMT	HMT	HMT	HMT	EWFL
Operating Hours		870	886	890	900	910	8th Last Fault		EPL	EPL	EOL	EPL	EPL
Number of Starts		68	68	68	68	68			EWFL	EWFL	EWFL	EWFL	EWFL
Start Hours Ago													
Unit Running OK		OK	OK	OK	OK	OK	Evap. Water PD (PSIG)						
Start Up Delta Temp. _____							Cond. Water PD (PSIG)						
Shut Down Delta Temp. _____													

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O: _____

OPERATING CONDITION	DATE	5-25	5-26	5/27	5/27	5/28	OPERATING CONDITION	DATE	5-25	5-25	5/27	5/27	5/28
	TIME	2100	2100	0330	10:30	0300		TIME	2100	2100	0330	0330	0300
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.0	41.3	41.1	41.3	40.5	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		52.7	48.9	47.1	47.6	48.7	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		76.8	72.0	73.9	76.4	73.7	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		84.9	82.7	79.4	80.9	79.1	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		36	38	38	38	35	Leaving Evap SPT.		40	46	40	40	40
Suction Line (Refrig. Temp.)		36	38	39	39	39	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		0.1	0.1	0.9	0.7	0.2	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		86	84	80	86	80	Max. Amp Limit		40	40	40	40	40
Condenser (Refrig. Temp.)		88	83	79	86	80	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		80	82	78	80	77	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		63	1.3	0.9	1.5	2.3	Soft Load Limit		40	46	40	40	40
Cond. Approach (Temp.)							Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		33	34	34	34	34	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		99	93	86	92	88	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		66	59	52	60	54	Last Fault		WF	WF	WF	WF	WF
Motor % RLA		88	69	64	78	71	2nd Last Fault		WF	WF	WF	WF	WF
Motor Amps							3rd Last Fault		WF	WF	WF	WF	WF
Oil Feed Temp.		99	98	97	98	96	4th Last Fault		WF	WF	WF	WF	WF
Oil Sump Temp.		117	116	116	116	114	5th Last Fault		WF	WF	WF	WF	WF
Oil Gage Pressure		146	147	146	146	146	6th Last Fault		HMT	WF	WF	WF	WF
Oil Differential Pressure		110	112	113	112	113	7th Last Fault		EPL	HMT	HMT	HMT	
Operating Hours		960	980	980	990	1000	8th Last Fault		WF	EPL	EPL	EPL	
Number of Starts		70	71	71	71	72							
Start Hours Ago													
Unit Running OK		OK	OK	OK	OK	OK	Evap. Water PD (PSIG)						
Start Up Delta Temp. _____							Cond. Water PD (PSIG)						
Shut Down Delta Temp. _____													

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	5/30	5/30	5/30	5/31	5/31	OPERATING CONDITION	DATE	5-30	5/30	5-30	5/31	5/31
	TIME	0430	0730	2100	0830	2100		TIME	0430	0730	2100	0830	2100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.0	41.7	41.3	41.2	41.3	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		50.5	52.3	51.0	57.6	52.5	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		72.5	73.9	75.0	75.8	72.8	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		79.5	81.5	81.8	80.6	80.0	Unit Running OK		OFF	OFF	OFF	OFF	OFF
Evaporator (Refrig. Temp.)		38	38	38	37	36	Leaving Evap SPT.		OK	OK	OK	OK	OK
Suction Line (Refrig. Temp.)		38	38	38	38	38	Reset Leaving SPT.		40	40	40	40	40
Superheat (Refrig. Temp.)		0.6	0.8	0.9	0.8	1.5	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		81	83	84	82	82	Max. Amp Limit		NA	NA	NA	NA	NA
Condenser (Refrig. Temp.)		80	82	82	82	81	Remote Amp Limit		40	40	40	40	40
Liquid Line (Refrig. Temp.)		76	78	78	77	76	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		3.8	4.4	4.1	4.6	5.1	Soft Load Limit		NA	NA	NA	NA	NA
Cond. Approach (Temp.)							Beginning Amp Limit		40	40	40	40	40
Evap. Pressure (PSIG)		33	34	34	34	33	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		88	87	92	81	90	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		55	57	58	57	57	Last Fault		NF	NF	NF	NF	NF
Motor % RLA		74	79	74	76	79	2nd Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Motor Amps							3rd Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Feed Temp.		97	98	98	98	97	4th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Sump Temp.		114	115	115	114	114	5th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Gage Pressure		14.5	14.6	14.5	14.5	14.7	6th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Differential Pressure		11.2	11.1	11.1	11.1	11.2	7th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Operating Hours		1050	1050	1060	1070	1090	8th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Number of Starts		72	72	72	72	72	Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %; Disable Lag _____ %; Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. 43

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ FL H2O: Cond. PD _____ FL H2O: _____

OPERATING CONDITION	DATE	6/6	6/7	6/7	6/8	6/8	OPERATING CONDITION	DATE	6/6	6/7	6/7	6/8	6/8
	TIME	1930	1215	2100	0330	2100		TIME	1930	1215	2100	0330	2100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		46.3	41.0	41	41.0	41.3	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		52.5	49.0	50.5	47.8	49.8	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		72.5	72.6	74.1	75.2	73.5	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		79.8	78.4	80.6	79.8	79.5	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		36	38	37	38	38	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		38	38	38	39	38	Reset Leaving SPT.			NA		NA	NA
Superheat (Refrig. Temp.)		1.5	0.4	0.6	0.1	0.7	Remote Reset SIG.			NA		NA	NA
Discharge (Refrig. Line Temp.)		82	80	82	81	81	Max. Amp Limit		40	100	100	100	100
Condenser (Refrig. Temp.)		81	78	81	80	80	Remote Amp Limit			NA		NA	NA
Liquid Line (Refrig. Temp.)		76	76	82	79	77	Remote Amp Signal			NA		NA	NA
Liquid Subcool (Refrig. Temp.)		5.4	2.8	3.8	0.7	3.2	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		32	34	33	34	34	Beginning Amp Limit			NA		NA	NA
Evap. Pressure (PSIG)		90	86	90	88	88	Ramp Up Time			NA		NA	NA
Cond. Pressure (PSIG)		58	52	57	54	54	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		81	70	74	69	71	Last Fault		EPL	EPL	EPL	EPL	EPL
Motor % RLA		99	98	98	97	98	2nd Last Fault		EPL	EPL	EPL	EPL	EPL
Motor Amps		116	116	115	115	115	3rd Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Feed Temp.		146	145	146	146	145	4th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Sump Temp.		112	111	111	112	111	5th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Gage Pressure		1140	1150	1160	1170	1170	6th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure		74	75	75	75	75	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours							8th Last Fault		EPL	EPL	EPL	EPL	EPL
Number of Starts							Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. _____

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ FL H2O: Cond. PD _____ FL H2O: _____

OPERATING CONDITION	DATE	6/10	6/11	6/11	6/11	OPERATING CONDITION	DATE	6/10	6/11	6/11	6/11
	TIME	8:00	2100	0015	2:30		2100	TIME	8:00	2100	0015
Unit is Running OK	OK	OK	OK	OK	OK	Low Pressure Unloading	OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)	46.7	41.1	41.0	41.3	41.1	Max. Amp Limit	VAR	100	100	100	100
Entering Evap. (Temp.)	49.1	50.0	51.2	52.1	49.8	Remote Amp Limit	OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)	73.4	72.3	75.7	75.5	73.6	Manual Amp Limit	OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)	78.2	83.8	82.7	82.7	84.7	Unit Running OK	OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)	38	38	37	37	38	Leaving Evap SPT.	40	40	40	40	40
Suction Line (Refrig. Temp.)	39	38	38	38	38	Reset Leaving SPT.	NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)	1.1	0.0	0.7	6.2	0.3	Remote Reset SIG.	NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)	79	85	85	85	86	Max. Amp Limit	100	100	100	100	100
Condenser (Refrig. Temp.)	79	84	84	84	85	Remote Amp Limit	NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)	79	81	79	79	82	Remote Amp Signal	NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)	2.8	3.6	4.7	5.1	3.4	Soft Load Limit	9	40	40	40	40
Cond. Approach (Temp.)	—	—	—	—	—	Beginning Amp Limit	NA	NA	NA	NA	NA
Evap. Pressure (PSIG)	39	34	33	33	34	Ramp Up Time	NA	NA	NA	NA	NA
Cond. Pressure (PSIG)	81	95	94	95	97	Now Fault	NA	NA	NA	NA	NA
Lift Pressure (PSIG)	56	61	61	61	63	Last Fault	EPL	EPL	EPL	EPL	EPL
Motor % RLA	67	73	81	81	72	2nd Last Fault	EPL	EPL	EPL	EPL	EPL
Motor Amps	—	—	—	—	—	3rd Last Fault	EPL	EPL	EPL	EPL	EPL
Oil Feed Temp.	97	99	98	98	98	4th Last Fault	EWF	EWF	EWF	EWF	EWF
Oil Sump Temp.	115	116	116	115	116	5th Last Fault	EPL	EPL	EPL	EPL	EPL
Oil Gage Pressure	145	147	147	148	148	6th Last Fault	EWF	EWF	EWF	EWF	EWF
Oil Differential Pressure	113	111	113	113	113	7th Last Fault	EWF	EWF	EWF	EWF	EWF
Operating Hours	1220	1230	1240	1240	1260	8th Last Fault	EWF	EWF	EWF	EWF	EWF
Number of Starts	76	76	76	76	76	Evap. Water PD (PSIG)					
Start Hours Ago	—	—	—	—	—	Cond. Water PD (PSIG)					
Unit Running OK	OK	OK	OK	OK	OK						

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____ :

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. # 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	6-13	6-14	6/14	6/14	6/15	OPERATING CONDITION	DATE	6-13	6-14	6/14	6/14	6/15
	TIME	2100	0200	7:30	2100	0300		TIME	2100	0300	7:30	2100	0300
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.9	41.1	41.1	46.8	41.0	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		51.0	47.8	47.3	50.5	47.4	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		80.2	78.4	74.3	80.4	75.2	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		86.5	81.3	78.6	87.0	79.8	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		36	39	39	38	39	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		39	39	38	38	39	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		0.8	0.3	0.5	0.0	0.6	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		88	82	80	88	81	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		87	87	78	88	80	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		83	81	77	83	79	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid-Subcool (Refrig. Temp.)		4.6	0.7	0.7	2.9	0.3	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		34	35	35	34	35	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		100	90	86	101	88	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		66	55	51	67	53	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		77	67	65	77	65	Last Fault		EPL	EPL	EPL	EPL	EPL
Motor % RLA		99	97	97	97	97	2nd Last Fault		EPL	EPL	EPL	EPL	EPL
Motor Amps		116	116	116	116	116	3rd Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Feed Temp.		149	148	146	150	147	4th Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Sump Temp.		113	114	114	113	112	5th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Gage Pressure		1300	1310	1310	1330	1330	6th Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Differential Pressure		77	77	77	78	78	7th Last Fault		EWF	EWF	EWF	EWF	EWF
Operating Hours		OK	OK	OK	OK	OK	8th Last Fault		EWF	EWF	EWF	EWF	EWF
Number of Starts							Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK													

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. _____

Serial No. _____

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	6/20	6/21	6/22	6-23	6/23
	TIME	2100	16:30	2100	0430	7:30
Unit is Running OK		OK	OK	OK	OK	OK
Leaving Evap. (Temp.)		41.1	41.1	41	40.1	41.5
Entering Evap. (Temp.)		49.4	50.2	50.9	48.7	54.5
Entering Cond. (Temp.)		79.8	78.8	79.3	78.0	79.4
Leaving Cond. (Temp.)		84.3	84.4	86.0	83.3	87.4
Evaporator (Refrig. Temp.)		39	38	39	39	36
Suction Line (Refrig. Temp.)		39	38	39	39	37
Superheat (Refrig. Temp.)		0.3	-0.1	0.1	0.2	0.6
Discharge (Refrig. Line Temp.)		85	87	87	84	80
Condenser (Refrig. Temp.)		85	86	87	84	80
Liquid Line (Refrig. Temp.)		85	84	85	83	82
Liquid Subcool (Refrig. Temp.)		1.5	2.5	1.9	0.9	2.1
Cond. Approach (Temp.)		—	—	—	—	—
Evap. Pressure (PSIG)		35	34	35	35	33
Cond. Pressure (PSIG)		96	95	99	94	95
Lift Pressure (PSIG)		61	64	64	59	72
Motor % RLA		69	76	74	69	81
Motor Amps		—	—	—	—	—
Oil Feed Temp.		98	99	102	98	100
Oil Sump Temp.		116	117	123	117	117
Oil Gage Pressure		148	148	145	148	147
Oil Differential Pressure		113	112	109	113	111
Operating Hours		1400	1400	1410	1420	1430
Number of Starts		82	84	85	85	85
Start Hours Ago		—	—	—	—	—
Unit Running OK		OK	OK	OK	OK	OK

OPERATING CONDITION	DATE	6/20	6/21	6/22	6-23	6/23
	TIME	2100	16:30	2100	0430	7:30
Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Unit Running OK		OK	OK	OK	OK	OK
Leaving Evap SPT.		40	40	40	40	40
Reset Leaving SPT.		—	NA	NA	NA	NA
Remote Reset SIG.		—	NA	NA	NA	NA
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		—	NA	NA	NA	NA
Remote Amp Signal		—	NA	NA	NA	NA
Soft Load Limit		40	40	40	40	40
Beginning Amp Limit		—	NA	NA	NA	NA
Ramp Up Time		—	NA	NA	NA	NA
Now Fault		NF	NF	NF	NF	NF
Last Fault		NST	NST	NST	NST	NST
2nd Last Fault		EPL	EPL	EPL	EPL	EPL
3rd Last Fault		EPL	EPL	EPL	EPL	EPL
4th Last Fault		EPL	EPL	EPL	EPL	EPL
5th Last Fault		EPL	EPL	EPL	EPL	EPL
6th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
7th Last Fault		EPL	EPL	EPL	EPL	EPL
8th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Evap. Water PD (PSIG)		—	—	—	—	—
Cond. Water PD (PSIG)		—	—	—	—	—

Start Up Delta Temp. _____ ; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ FL H2O: Cond. PD _____ FL H2O: _____

OPERATING CONDITION	DATE	6-25	6/25	6/24	6/26	6/26	OPERATING CONDITION	DATE	6-25	6/25	6-24	6/26	6/26
	TIME	1100	2100	0230	2:30	3100		TIME	1100	2100	0230	2:30	3100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		46.8	47.0	41.1	41.0	41.0	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		49.4	49.4	46.9	42.4	51.8	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		75.2	83.4	77.9	81.8	75.5	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		86.7	89.4	81.6	86.3	82.7	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	38	39	39	37	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		39	39	40	39	38	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		0.8	0.1	0.7	0.1	1.3	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		82	90	82	87	85	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		81	90	82	87	84	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		78	87	81	85	79	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		3.3	3.0	1.0	2.3	5.0	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)							Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		34	34	35	35	33	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		90	105	91	99	94	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		56	71	56	64	61	Last Fault		NF	NF	NF	NF	NF
Motor % RLA		69	77	65	68	78	2nd Last Fault		NST	EFL	EFL	EWF	EWF
Motor Amps							3rd Last Fault		EPL	NST	NST	NST	NST
Oil Feed Temp.		98	97	97	97	99	4th Last Fault		EPL	EPI	EPL	EPL	EPL
Oil Sump Temp.		115	116	115	115	116	5th Last Fault		EPL	EPI	EPL	EPL	EPL
Oil Gage Pressure		146	152	148	149	148	6th Last Fault		EWFL	EPI	FPL	EPL	EPL
Oil Differential Pressure		113	114	114	115	113	7th Last Fault		EPL	EFL	EWFL	EWFL	EWFL
Operating Hours		1470	1480	1490	1490	1510	8th Last Fault		EWFL	EPI	EPL	EPL	EPL
Number of Starts		89	90	90	90	91	Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____ Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. # 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	6/29	6/29	6/30	7/1	7/2
	TIME	0130	0945	1920	2100	0300
Unit is Running OK		OK	OK	OK	OK	OK
Leaving Evap. (Temp.)		41.0	41.0	41.3	41.1	41.0
Entering Evap. (Temp.)		47.6	51.0	48.3	57.4	46.9
Entering Cond. (Temp.)		75.7	73.4	75.5	73.7	76.0
Leaving Cond. (Temp.)		80.0	80.0	80.4	80.4	78.9
Evaporator (Refrig. Temp.)		39	38	39	38	39
Suction Line (Refrig. Temp.)		40	39	40	38	40
Superheat (Refrig. Temp.)		0.8	1.5	0.5	0.9	0.7
Discharge (Refrig. Line Temp.)		81	81	82	82	79
Condenser (Refrig. Temp.)		80	79	80	82	79
Liquid Line (Refrig. Temp.)		78	76	79	77	79
Liquid-Subcool (Refrig. Temp.)		1.6	3.3	1.0	4.6	0.4
Cond. Approach (Temp.)						
Evap. Pressure (PSIG)		35	34	35	34	35
Cond. Pressure (PSIG)		88	87	89	91	87
Lift Pressure (PSIG)		53	53	54	57	52
Motor % RLA		66	74	66	74	65
Motor Amps						
Oil Feed Temp.		98	98	99	99	97
Oil Sump Temp.		116	115	116	115	115
Oil Gage Pressure		146	145	147	145	147
Oil Differential Pressure		113	112	113	111	115
Operating Hours		1550	1560	1570	1580	1590
Number of Starts		92	92	94	97	97
Start Hours Ago						
Unit Running OK		OK	OK	OK	OK	OK

OPERATING CONDITION	DATE	6/28	6/29	6/30	7/1	7/2
	TIME	0130	0945	1920	2100	0300
Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Unit Running OK		OK	OK	OK	OK	OK
Leaving Evap SPT.		40	40	46	40	40
Reset Leaving SPT.		NA	NA		NA	NA
Remote Reset SIG.		NA	NA		NA	NA
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		NA	NA		NA	NA
Remote Amp Signal		NA	NA		NA	NA
Soft Load Limit		40	40	40	40	40
Beginning Amp Limit		NA	NA		NA	NA
Ramp Up Time		NA	NA		NA	NA
Now Fault		NA	NA		NA	NA
Last Fault		NF	NF	NF	NF	NF
2nd Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
3rd Last Fault		NST	NST	NST	EWFL	EWFL
4th Last Fault		EPL	EPL	EPL	EWFL	EWFL
5th Last Fault		EPL	EPL	EPL	NST	NST
6th Last Fault		EPL	EPL	EPL	EPI	EPL
7th Last Fault		EWFL	EWFL	EWFL	EPI	EPL
8th Last Fault		EPL	EPL	EPL	EPI	EPL

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	7/4	7/4	7/5	7/5	7/5	OPERATING CONDITION	DATE	7/4	7/4	7/5	7/5	7/5
	TIME	1100	2030	0445	0800	1600		TIME	1100	2030	0445	0800	1600
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)	50.0	52.0	41.3	41.0	41.7	50.0	Max. Amp Limit	100	100	100	100	100	100
Entering Evap. (Temp.)	73.0	74.0	46.9	51.9	52.0	73.0	Remote Amp Limit	OFF	OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)	78.4	78.4	74.4	73.2	73.2	78.4	Manual Amp Limit	OFF	OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)	78.4	78.4	78.2	80.4	80.4	78.4	Unit Running OK	OK	OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)	38	39	39	37	36	38	Leaving Evap SPT.	40	40	40	40	40	40
Suction Line (Refrig. Temp.)	39	41	40	39	36	39	Reset Leaving SPT.	NA	NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)	1.1	2.3	1.2	1.0	0.3	1.1	Remote Reset SIG.	NA	NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)	80	87	79	82	80	80	Max. Amp Limit	100	100	100	100	100	100
Condenser (Refrig. Temp.)	79	86	78	82	80	79	Remote Amp Limit	NA	NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)	76	82	77	76	82	76	Remote Amp Signal	NA	NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)	2.9	6.7	1.4	5.5	2.9	2.9	Soft Load Limit	40	40	40	40	40	40
Cond. Approach (Temp.)	—	—	—	—	—	—	Beginning Amp Limit	NA	NA	NA	NA	NA	NA
Evap. Pressure (PSIG)	34	35	35	33	32	34	Ramp Up Time	NA	NA	NA	NA	NA	NA
Cond. Pressure (PSIG)	87	102	85	91	85	87	Now Fault	NA	NA	NA	NA	NA	NA
Lift Pressure (PSIG)	53	69	50	58	73	53	Last Fault	NF	NF	NF	NF	NF	NF
Motor % RLA	69	85	64	79	95	69	2nd Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Motor Amps	—	—	—	—	—	—	3rd Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Oil Feed Temp.	98	99	97	99	99	98	4th Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Oil Sump Temp.	115	116	115	116	116	115	5th Last Fault	NST	NST	NST	NST	NST	NST
Oil Gage Pressure	145	149	147	147	143	145	6th Last Fault	EPL	EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure	112	112	114	113	113	112	7th Last Fault	EPL	EPL	EPL	EPL	EPL	EPL
Operating Hours	1640	1656	1660	1670	1670	1640	8th Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Number of Starts	97	97	97	97	97	97	Evap. Water PD (PSIG)						
Start Hours Ago	OK	OK	OK	OK	OK	OK	Cond. Water PD (PSIG)						
Unit Running OK													

Start Up Delta Temp. _____ Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. 3

Serial No. 2615

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	7/7	7/8	7/8	7/9	OPERATING CONDITION	DATE	7/7	7/8	7/8	7/9
	TIME	2100	0330	2100	0030		TIME	2100	0330	2100	0030
Unit is Running OK		OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		40.8	41.0	41.0	41.0	Max. Amp Limit		100	100	100	100
Entering Evap. (Temp.)		40.3	48.3	49.1	47.6	Remote Amp Limit		OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		77.7	77.3	74.8	75.0	Manual Amp Limit		OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		86.1	82.4	84.3	79.5	Unit Running OK		OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	39	38	39	Leaving Evap SPT.		40	40	40	40
Suction Line (Refrig. Temp.)		38	39	38	39	Reset Leaving SPT.		NA	NA	NA	NA
Superheat (Refrig. Temp.)		-0.1	0.0	0.1	0.6	Remote Reset SIG.		NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		88	83	86	80	Max. Amp Limit		100	100	100	100
Condenser (Refrig. Temp.)		87	83	85	80	Remote Amp Limit		NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		85	82	83	79	Remote Amp Signal		NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		1.9	0.9	1.8	0.4	Soft Load Limit		40	40	40	40
Cond. Approach (Temp.)						Beginning Amp Limit		NA	NA	NA	NA
Evap. Pressure (PSIG)		34	35	34	35	Ramp Up Time		NA	NA	NA	NA
Cond. Pressure (PSIG)		100	93	97	87	Now Fault		NA	NA	NA	NA
Lift Pressure (PSIG)		66	58	63	52	Last Fault		EWI	EWI	EWI	EWI
Motor % RLA		74	67	69	64	2nd Last Fault		EWI	EWI	EWI	EWI
Motor Amps						3rd Last Fault		EWI	EWI	EWI	EWI
Oil Feed Temp.		99	98	96	97	4th Last Fault		EWI	EWI	EWI	EWI
Oil Sump Temp.		117	116	116	115	5th Last Fault		NST	NST	NST	NST
Oil Gage Pressure		148	147	149	147	6th Last Fault		EPL	EPL	EPL	EPL
Oil Differential Pressure		112	113	114	114	7th Last Fault		EPL	EPL	EPL	EPL
Operating Hours		1730	1730	1750	1750	8th Last Fault		EWI	EWI	EWI	EWI
Number of Starts		97	97	97	97	Evap. Water PD (PSIG)					
Start Hours Ago						Cond. Water PD (PSIG)					
Unit Running OK		OK	OK	OK	OK						

Start Up Delta Temp. _____ Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ FL H2O: Cond. PD _____ FL H2O: _____

OPERATING CONDITION	DATE	7/11	7-12	7/12	OPERATING CONDITION	DATE	7/11	7-12	7/12
	TIME	7:30	2:00	04:15		2:30	2:00	7:30	2:00
Unit is Running OK		OK	OK	OK	OK		OK	OK	OK
Leaving Evap. (Temp.)		41.7	41.0	41.8	41.5		40.6	40.6	40.6
Entering Evap. (Temp.)		48.9	53.9	48.0	48.5		53.6	53.6	53.6
Entering Cond. (Temp.)		76.7	74.3	71.6	71.3		73.9	73.9	73.9
Leaving Cond. (Temp.)		76.6	82.9	76.4	80.0		82.4	82.4	82.4
Evaporator (Refrig. Temp.)		38	35	38	39		36	36	36
Suction Line (Refrig. Temp.)		30	37	39	40		37	37	37
Superheat (Refrig. Temp.)		1.7	1.9	1.3	0.9		1.6	1.6	1.6
Discharge (Refrig. Line Temp.)		78	85	78	80		85	85	85
Condenser (Refrig. Temp.)		77	84	76	80		84	84	84
Liquid Line (Refrig. Temp.)		74	78	74	78		78	78	78
Liquid Subcool (Refrig. Temp.)		2.1	6.6	1.7	2.0		6.1	6.1	6.1
Cond. Approach (Temp.)									
Evap. Pressure (PSIG)		34	32	34	35		32	32	32
Cond. Pressure (PSIG)		51	96	82	88		94	94	94
Lift Pressure (PSIG)		50	64	48	53		62	62	62
Motor % RLA		67	85	64	62		83	83	83
Motor Amps									
Oil Feed Temp.		97	100	97	97		100	100	100
Oil Sump Temp.		114	117	114	114		117	117	117
Oil Gage Pressure		146	146	146	148		147	147	147
Oil Differential Pressure		113	111	114	113		112	112	112
Operating Hours		1800	1820	1830	1830		1840	1840	1840
Number of Starts		55	99	99	99		99	99	99
Start Hours Ago									
Unit Running OK		OK	OK	OK	OK		OK	OK	OK
Start Up Delta Temp.									
Shut Down Delta Temp.									
(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)									

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O: _____

OPERATING CONDITION	DATE	7/14	7/15	7/15	7/15	7/15	OPERATING CONDITION	DATE	7/14	7/15	7/15	7/15	7/15
	TIME	2100	0300	9:00	2100	2100		TIME	2100	0300	9:00	2100	2100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		40.8	41.4	41.3	41.7	40.8	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		49.8	51.4	53.2	48.0	47.4	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		79.5	72.6	78.0	74.6	71.9	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		88.6	79.5	85.2	79.1	76.2	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	37	36	35	38	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		38	38	38	34	39	Reset Leaving SPT.			NA	NA	NA	NA
Superheat (Refrig. Temp.)		0.3	0.9	1.5	0.7	0.8	Remote Reset SIG.			NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		87	82	81	80	78	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		80	80	81	80	77	Remote Amp Limit			NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		83	76	81	79	76	Remote Amp Signal			NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		3.6	4.2	6.6	1.4	1.3	Soft Load Limit			NA	NA	NA	NA
Cond. Approach (Temp.)							Beginning Amp Limit		40	40	40	40	40
Evap. Pressure (PSIG)		34	34	32	35	35	Ramp Up Time			NA	NA	NA	NA
Cond. Pressure (PSIG)		99	89	102	88	84	Now Fault			NA	NA	NA	NA
Lift Pressure (PSIG)		65	55	70	53	49	Last Fault		NF	NF	NF	NF	NF
Motor % RLA		72	74	89	64	62	2nd Last Fault		EWL	EWL	EWL	EWL	EWL
Motor Amps							3rd Last Fault		EWL	EWL	EWL	EWL	EWL
Oil Feed Temp.		98	98	100	98	98	4th Last Fault		EWL	EWL	EWL	EWL	EWL
Oil Sump Temp.		110	115	112	116	116	5th Last Fault		NST	NST	NST	NST	NST
Oil Gage Pressure		148	145	147	147	145	6th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure		112	112	111	114	113	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours		1890	1900	1800	1910	1930	8th Last Fault		EWL	EWL	EWL	EWL	EWL
Number of Starts		99	99	85	99	100	Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O: _____

OPERATING CONDITION	DATE	7/18	7/19	7/19	7/19	7-20	OPERATING CONDITION	DATE	7/18	7/19	7/19	7/19	7-20
	TIME	2100	0300	1300	12:00	0315		TIME	2100	0300	1300	12:00	0315
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		40.8	41.0	41.5	41.2	41.1	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		51.6	49.8	53	52.8	48.9	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		80.7	79.3	82.2	83.3	82.1	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		88.1	85.2	90.1	90.3	82.5	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	39	38	35	39	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		38	38	38	39	39	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		-0.1	-0.3	0.3	3.4	0.3	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		90	87	92	95	84	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		89	86	91	84	83	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		84	83	86	86	82	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid-Subcool (Refrig. Temp.)		4.7	2.4	5.6	7.9	1.3	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		—	—	—	—	—	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		34	35	34	32	35	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		104	98	108	114	93	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		70	63	74	82	58	Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Motor % RLA		79	73	87	92	68	2nd Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Motor Amps		—	—	—	—	—	3rd Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Feed Temp.		100	99	101	99	99	4th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Sump Temp.		118	117	119	119	117	5th Last Fault		NST	NST	NST	NST	NST
Oil Gage Pressure		151	148	150	150	147	6th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure		113	112	112	111	112	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours		1980	1980	1990	2000	2010	8th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Number of Starts		101	101	101	101	103	Evap. Water PD (PSIG)						
Start Hours Ago		—	—	—	—	—	Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %; Disable Lag _____ %; Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	7-22	7/22	7/22	7-23	7/23	OPERATING CONDITION	DATE	7-22	7/22	7/23	7-23	7/23
	TIME	0300	7:30	2100	0330	7:30		TIME	0300	7:30	2100	0330	7:30
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.3	41.5	40.6	40.8	41.3	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		49.1	50.0	52.5	47.1	48.9	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		74.3	76.2	73.2	72.5	73.2	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		79.3	81.5	80.7	76.8	78.4	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	37	36	38	38	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		40	40	37	39	39	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		1.0	1.0	1.8	1.4	1.7	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		80	82	83	78	79	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		80	83	82	77	80	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		78	80	76	75	76	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		2.8	3.1	5.5	1.7	3.1	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)							Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		34	35	32	34	34	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		89	95	91	83	86	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		55	58	59	49	52	Last Fault		NF	NF	NF	NF	NF
Motor % RLA		68	70	80	64	67	2nd Last Fault		EWF	EWF	EWF	EWF	EWF
Motor Amps							3rd Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Feed Temp.		97	97	98	97	98	4th Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Sump Temp.		114	114	115	114	113	5th Last Fault		NST	NST	NST	NST	NST
Oil Gage Pressure		147	148	147	146	145	6th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure		113	114	113	114	115	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours		2060	2060	2070	2080	2080	8th Last Fault		EWF	EWF	EWF	EWF	EWF
Number of Starts		103	103	103	103	103	Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %; Disable Lag _____ %; Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ FL H2O: Cond. PD _____ FL H2O: _____

OPERATING CONDITION	DATE	7/25	7/26	7/26	7-26	7/27	OPERATING CONDITION	DATE	7/25	7/26	7/26	7-26	7/27
	TIME	2106	500	7:20	1930	0300		TIME	2100	500	0:30	1930	0300
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		45	51.4	46.1	40.8	41.1	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		52.1	41.0	50.5	57.4	48.7	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		77.1	74.1	23.2	79.8	77.3	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		84.3	80.7	28.9	87.2	82.5	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	37	38	38	39	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		38	38	39	38	39	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		0.8	1.3	1.2	0.1	0.5	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		86	82	82	89	84	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		86	83	81	85	83	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		80	77	76	84	82	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		5.4	4.8	3.5	4.8	1.4	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		33	33	34	34	35	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		98	91	84	103	93	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		65	58	54	69	58	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		81	77	72	80	68	Last Fault		EWF	EWF	EWF	EWF	EWF
Motor % RLA		100	99	99	99	98	2nd Last Fault		EWF	EWF	EWF	EWF	EWF
Motor Amps		117	115	117	117	117	3rd Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Feed Temp.		148	146	145	150	148	4th Last Fault		NST	NST	NIT	NST	NST
Oil Sump Temp.		112	112	112	113	112	5th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Gage Pressure		2150	2150	2150	2170	2180	6th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure		103	103	103	103	103	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours							8th Last Fault		EWF	EWF	EWF	EWF	EWF
Number of Starts							Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____

(Dual unit(s)-only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE					OPERATING CONDITION	DATE					
	TIME	7/29	7/29	7/29	7/30		7/30	TIME	7/29	7/29	7/29	7/30
Unit is Running OK	OK	OK	OK	OK	OK	Unit Running OK	OK	OK	OK	OK	OK	OK
Leaving Evap. (Temp.)	41.3	42.0	41.0	40.8	41.1	Low Pressure Unloading	OFF	OFF	OFF	OFF	OFF	OFF
Entering Evap. (Temp.)	51.8	51.2	51.8	50.1	49.4	Max. Amp Limit	100	100	100	100	100	100
Entering Cond. (Temp.)	76.4	75.5	76.7	76.2	75.0	Remote Amp Limit	OFF	OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)	83.3	83.3	83.5	80.2	80.6	Manual Amp Limit	OFF	OFF	OFF	OFF	OFF	OFF
Evaporator (Refrig. Temp.)	38	36	38	38	38	Unit Running OK	OK	OK	OK	OK	OK	OK
Suction Line (Refrig. Temp.)	39	37	38	38	39	Leaving Evap SPT.	40	40	40	40	40	40
Superheat (Refrig. Temp.)	1.0	0.5	0.0	0.0	0.5	Reset Leaving SPT.	NA	NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)	84	81	80	88	82	Remote Reset SIG.	NA	NA	NA	NA	NA	NA
Condenser (Refrig. Temp.)	85	81	80	88	81	Max. Amp Limit	100	100	100	100	100	100
Liquid Line (Refrig. Temp.)	80	83	84	84	78	Remote Amp Limit	NA	NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)	5.1	7.8	5.4	3.4	2.7	Remote Amp Signal	NA	NA	NA	NA	NA	NA
Cond. Approach (Temp.)						Soft Load Limit	40	40	40	40	40	40
Evap. Pressure (PSIG)	34	32	34	34	34	Beginning Amp Limit	NA	NA	NA	NA	NA	NA
Cond. Pressure (PSIG)	96	102	105	101	90	Ramp Up Time	NA	NA	NA	NA	NA	NA
Lift Pressure (PSIG)	62	75	71	67	56	Now Fault	NA	NA	NA	NA	NA	NA
Motor % RLA	77	96	81	76	66	Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Motor Amps						2nd Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Oil Feed Temp.	98	102	100	99	98	3rd Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Oil Sump Temp.	115	118	118	117	116	4th Last Fault	NST	NST	NST	NST	NST	NST
Oil Gage Pressure	148	145	150	149	147	5th Last Fault	EPL	EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure	113	109	113	113	112	6th Last Fault	EPL	EPL	EPL	EPL	EPL	EPL
Operating Hours	2220	2230	2240	2250	2270	7th Last Fault	EWFL	EWFL	EWFL	EWFL	EWFL	EWFL
Number of Starts	103	103	103	103	103	8th Last Fault						
Start Hours Ago						Evap. Water PD (PSIG)						
Unit Running OK	OK	OK	OK	OK	OK	Cond. Water PD (PSIG)						

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %; Disable Lag _____ %; Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. _____

Serial No. _____

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	8/2	8/2	8-30	8/3	8/3	OPERATING CONDITION	DATE	8/2	8/2	8-3	8/3	8/3
	TIME	1100	1900	0430	0:30	2100		TIME	1100	1900	0430	0:30	2100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		40.9	41.0	41.1	41.0	42.6	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		50.7	51.0	46.9	51.8	56.3	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		78.4	78.4	74.6	75.2	80.7	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		85.1	85.2	78.6	82.2	90.3	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	38	38	38	37	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		38	38	40	38	37	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		0.6	0.7	0.9	0.7	0.5	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		87	87	79	84	92	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		86	86	79	84	92	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		82	82	78	79	84	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		4.4	4.7	0.7	4.8	8.1	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)							Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		34	34	35	34	33	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		99	99	86	84	110	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		64	65	51	60	77	Last Fault		NF	NF	NF	NF	NF
Motor % RLA		76	78	62	74	98	2nd Last Fault		EWf	EWf	EWf	EWf	EWf
Motor Amps							3rd Last Fault		EWf	EWf	EWf	EWf	EWf
Oil Feed Temp.		99	100	97	99	102	4th Last Fault		EWf	EWf	EWf	EWf	EWf
Oil Sump Temp.		117	117	116	115	119	5th Last Fault		NST	NST	NST	NST	NST
Oil Gage Pressure		149	149	148	147	146	6th Last Fault		EPL	EPL	EPL	EPL	EPL
Oil Differential Pressure		113	113	115	112	109	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours		2300	2300	2310	2320	2330	8th Last Fault		EWf	EWf	EWf	EWf	EWf
Number of Starts		106	106	106	106	106	Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____; Shut Down Delta Temp. _____

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. # 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O:

OPERATING CONDITION	DATE	8/5	8/6	8/6	8/6	8-7
	TIME	2100	0130	2:30	2100	0430
Unit is Running OK		OK	OK	OK	OK	OK
Leaving Evap. (Temp.)		41.3	41.3	41.5	41.5	41.4
Entering Evap. (Temp.)		47.4	48.3	47.8	50.5	46.7
Entering Cond. (Temp.)		75.9	75.2	72.5	75.9	74.3
Leaving Cond. (Temp.)		79.8	79.8	76.4	81.5	78.2
Evaporator (Refrig. Temp.)		40	40	38	38	39
Suction Line (Refrig. Temp.)		40	40	40	39	40
Superheat (Refrig. Temp.)		0.6	1.0	1.5	0.8	1.2
Discharge (Refrig. Line Temp.)		80	80	77	82	79
Condenser (Refrig. Temp.)		80	80	78	83	78
Liquid Line (Refrig. Temp.)		79	78	75	79	76
Liquid Subcool (Refrig. Temp.)		1.3	2.1	2.9	4.3	1.6
Cond. Approach (Temp.)						
Evap. Pressure (PSIG)		35	35	34	34	35
Cond. Pressure (PSIG)		89	88	85	94	85
Lift Pressure (PSIG)		54	53	51	60	50
Motor % RLA		62	65	62	72	62
Motor Amps						
Oil Feed Temp.		97	96	96	98	96
Oil Sump Temp.		115	114	114	115	115
Oil Gage Pressure		148	148	147	147	147
Oil Differential Pressure		114	114	114	112	115
Operating Hours		2380	2380	230	2400	2410
Number of Starts		106	106	106	106	106
Start Hours Ago						
Unit Running OK		OK	OK	OK	OK	OK

OPERATING CONDITION	DATE	8/5	8/6	8/6	8/6	8-7
	TIME	2100	0130	2:30	2100	0430
Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Unit Running OK		OK	OK	OK	OK	OK
Leaving Evap SPT.		40	40	40	40	40
Reset Leaving SPT.		NA	NA	NA	NA	NA
Remote Reset SIG.		NA	NA	NA	NA	NA
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		NA	NA	NA	NA	NA
Remote Amp Signal		NA	NA	NA	NA	NA
Soft Load Limit		40	40	40	40	40
Beginning Amp Limit		NA	NA	NA	NA	NA
Ramp Up Time		NA	NA	NA	NA	NA
Now Fault		NA	NA	NA	NA	NA
Last Fault		WF	WF	WF	WF	WF
2nd Last Fault		WF	WF	WF	WF	WF
3rd Last Fault		WF	WF	WF	WF	WF
4th Last Fault		WF	WF	WF	WF	WF
5th Last Fault		NST	NST	NST	NST	NST
6th Last Fault		EPL	EPL	EPL	EPL	EPL
7th Last Fault		EPL	EPL	EPL	EPL	EPL
8th Last Fault		EPL	EPL	EPL	EPL	EPL
Evap. Water PD (PSIG)						
Cond. Water PD (PSIG)						

Start Up Delta Temp. _____ Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O: _____

OPERATING CONDITION	DATE	8/10	8/10	8/10	8/11	8/11	OPERATING CONDITION	DATE	8/10	8/10	8/10	8/11	8/11
	TIME	0445	1025	2100	0300	8:30		TIME	0445	1025	2100	0300	8:30
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.0	41.0	41	41.3	41.5	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		49.8	50.7	49.8	47.4	53.7	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		73.5	79.5	79	74.1	77.0	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		79.5	86.1	84	78.6	85.4	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	38	38	39	36	Leaving Evap SPT.		40.0	40.0	40	40	40
Suction Line (Refrig. Temp.)		39	38	38	40	38	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		1.2	0.0	0.1	0.7	1.5	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		81	88	86	80	84	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		80	87	87	80	88	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		77	83	82	78	81	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		3.2	4.1	4.6	0.6	2.2	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		—	—	—	—	—	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		34	34	35	35	32	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		88	100	99	86	102	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		54	66	62	51	70	Last Fault		WF	WF	WF	WF	WF
Motor % RLA		70	75	79	63	89	2nd Last Fault		EWFL	EPL	EFL	EWF	NT
Motor Amps		—	—	—	—	—	3rd Last Fault		EWFL	EPL	EPL	EWF	NT
Oil Feed Temp.		97	99	98	97	99	4th Last Fault		EWFL	EPL	EPL	EWF	NT
Oil Sump Temp.		115	117	116	116	117	5th Last Fault		NST	NST	NST	NST	EWFL
Oil Gage Pressure		147	150	140	147	147	6th Last Fault		EPL	EPL	EPL	EPL	EWFL
Oil Differential Pressure		113	114	112	114	111	7th Last Fault		EPL	EPL	EPL	EPL	NST
Operating Hours		340	2470	2470	2490	2490	8th Last Fault		EPL	EPL	EPL	EPL	EPL
Number of Starts		109	109	109	109	112			EWFL	EPL	EFF	EWF	EPL
Start Hours Ago		—	—	—	—	—							
Unit Running OK		OK	OK	OK	OK	OK	Evap. Water PD (PSIG)						
Start Up Delta Temp. _____							Cond. Water PD (PSIG)						
Shut Down Delta Temp. _____													

(Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O: _____

OPERATING CONDITION	DATE	8/13	8/14	8/14	8/14	8/15	OPERATING CONDITION	DATE	8/13	8/14	8/14	8/14	8/15
	TIME	2100	0100	0925	2100	0100		TIME	2100	0100	0925	2100	0100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41	41.0	41.5	41	41.1	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		52	48.0	52.8	49.4	50.1	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		75.3	72.5	73.9	77.9	75.2	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		83.3	77.1	81.5	83.9	80.9	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		35	38	36	39	38	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		37	39	38	39	39	Reset Leaving SPT.		1	NA	NA	1	NA
Superheat (Refrig. Temp.)		1.7	1.1	1.7	-0.1	0.9	Remote Reset SIG.		100	100	100	100	100
Discharge (Refrig. Line Temp.)		85	79	84	85	82	Max. Amp Limit		1	NA	NA	1	NA
Condenser (Refrig. Temp.)		85	77	83	84	82	Remote Amp Limit		1	NA	NA	1	NA
Liquid Line (Refrig. Temp.)		78	75	77	83	78	Remote Amp Signal		1	NA	NA	1	NA
Liquid Subcool (Refrig. Temp.)		6.8	2.0	6.2	1.3	3.7	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		32	34	33	35	34	Beginning Amp Limit		1	NA	NA	1	NA
Evap. Pressure (PSIG)		97	84	94	95	91	Ramp Up Time		1	NA	NA	1	NA
Cond. Pressure (PSIG)		65	50	61	60	57	Now Fault		NA	NA	NA	NA	NA
Lift Pressure (PSIG)		86	65	81	69	72	Last Fault		NA	NA	NA	NA	NA
Motor % RLA		99	97	99	99	98	2nd Last Fault		NA	NA	NA	NA	NA
Motor Amps		116	115	115	117	115	3rd Last Fault		NA	NA	NA	NA	NA
Oil Feed Temp.		147	145	147	148	147	4th Last Fault		NA	NA	NA	NA	NA
Oil Sump Temp.		113	113	112	113	113	5th Last Fault		NA	NA	NA	NA	NA
Oil Gage Pressure		2550	2550	2560	2570	2580	6th Last Fault		NA	NA	NA	NA	NA
Oil Differential Pressure		114	114	118	114	114	7th Last Fault		NA	NA	NA	NA	NA
Operating Hours		OK	OK	OK	OK	OK	8th Last Fault		NA	NA	NA	NA	NA
Number of Starts							Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK													

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____

(Dual unit(s)-only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	8/18	8/19	8/19	8/20	8/20	OPERATING CONDITION	DATE	8/18	8/19	8/19	8/20	8/20
	TIME	2100	0330	2100	0030	2100		TIME	2100	0330	2100	0030	2100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		410	40.8	41.0	41.1	41.0	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		50.1	48.3	50.9	50.1	49.4	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		800	78.0	81.1	80.7	79.5	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		86.1	83.1	87.8	87.2	85.2	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	39	38	38	38	Leaving Evap SPT.		40	40	40	41	41
Suction Line (Refrig. Temp.)		-0.2	-0.1	0.0	-0.2	-0.1	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		87	84	90	89	86	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		87	84	89	88	87	Max. Amp Limit		40	40	40	100	100
Condenser (Refrig. Temp.)		84	82	84	84	84	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		3.4	1.1	4.4	3.9	2.1	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)							Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		34	35	34	34	34	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		100	94	103	102	98	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		60	59	69	68	64	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		72	69	77	76	70	Last Fault		EWFL	CWF	CWF	CWFL	CWF
Motor % RLA							2nd Last Fault		EPI	EPL	EPI	EPL	EPI
Motor Amps		99	99	99	100	99	3rd Last Fault		NST	NST	NST	NST	NST
Oil Feed Temp.		117	117	117	118	116	4th Last Fault		NST	NST	NST	NST	NST
Oil Sump Temp.		149	148	153	150	149	5th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Sump Pressure		113	113	115	114	113	6th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Oil Differential Pressure		2650	2650	2670	2680	2700	7th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Operating Hours		117	117	118	118	119	8th Last Fault		NST	NST	NST	NST	NST
Number of Starts							Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____ :
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	8/24	8/24	8/24	8/25	8/25	OPERATING CONDITION	DATE	8/24	8/24	8/24	8/25	8/25
	TIME	0100	1350	1900	0100	1002		TIME	0100	1350	1900	0100	1002
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.0	41.1	40.8	40.8	41.5	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		50.0	49.8	49.1	48.3	48.3	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		76.1	77.5	75.2	75.5	74.4	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		82.0	83.4	80.9	80.6	79.1	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	38	38	38	39	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		0.8	0.1	0.2	0.5	1.1	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		83	85	82	81	80	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		83	84	82	81	80	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		79	82	80	80	77	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		3.9	2.1	1.6	1.6	2.3	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		34	34	34	34	35	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		94	96	91	90	88	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		60	62	57	56	55	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		74	70	68	67	62	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		98	98	98	96	97	Last Fault		CWF	CWF	CWF	CWF	CWF
Motor % RLA		115	117	117	115	115	2nd Last Fault		EPL	EPL	EPL	EPL	EPL
Motor Amps		147	148	147	148	148	3rd Last Fault		NST	NST	NST	NST	NST
Oil Feed Temp.		114	113	113	114	114	4th Last Fault		NST	NST	NST	NST	NST
Oil Sump Temp.		2760	2770	2780	2780	2790	5th Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Sump Pressure		122	122	122	122	122	6th Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Gage Pressure		OK	OK	OK	OK	OK	7th Last Fault		EWF	EWF	EWF	EWF	EWF
Oil Differential Pressure		OK	OK	OK	OK	OK	8th Last Fault		NST	NST	NST	NST	NST
Operating Hours		OK	OK	OK	OK	OK	Evap. Water PD (PSIG)						
Number of Starts							Cond. Water PD (PSIG)						
Start Hours Ago													
Unit Running OK													

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____ :
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	8/28	8/28	8/29	8/29	8/29	OPERATING CONDITION	DATE	8/28	8/28	8/29	8/29	8/29
	TIME	1100	2100	0100	1100	2100		TIME	1100	2100	0100	1100	2100
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		52.5	40.8	41.3	41.7	40.8	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		52.5	53.6	47.6	52.7	47.6	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		72.1	75.2	76.1	74.8	77.7	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		79.3	83.6	80.4	82.0	76.4	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		36	34	39	37	38	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		38	36	40	38	39	Reset Leaving SPT.		NA	NA	NA	NA	NA
Superheat (Refrig. Temp.)		1.5	1.6	1.2	1.6	0.5	Remote Reset SIG.		NA	NA	NA	NA	NA
Discharge (Refrig. Line Temp.)		81	86	81	84	86	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		81	86	80	84	79	Remote Amp Limit		NA	NA	NA	NA	NA
Liquid Line (Refrig. Temp.)		75	79	78	78	78	Remote Amp Signal		NA	NA	NA	NA	NA
Liquid Subcool (Refrig. Temp.)		5.4	7.2	1.9	6.2	0.7	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		33	31	35	33	34	Beginning Amp Limit		NA	NA	NA	NA	NA
Evap. Pressure (PSIG)		89	98	89	94	86	Ramp Up Time		NA	NA	NA	NA	NA
Cond. Pressure (PSIG)		56	67	54	62	52	Now Fault		NF	NF	NF	NF	NF
Lift Pressure (PSIG)		78	91	67	81	64	Last Fault		EPL	EPI	EPL	EPL	EPL
Motor % RLA							2nd Last Fault		CWL	CWI	CWF	CWF	CWF
Motor Amps		99	101	98	100	98	3rd Last Fault		EPL	EPI	EPL	EPL	EPL
Oil Feed Temp.		115	117	115	116	116	4th Last Fault		NST	NSF	NST	NST	NSI
Oil Sump Temp.		147	144	148	147	147	5th Last Fault		NST	NSF	NST	NST	NSI
Oil Cage Pressure		113	110	114	112	114	6th Last Fault		EPL	EPL	EWF	EWF	EWF
Oil Differential Pressure		2850	2860	2860	2860	2860	7th Last Fault		EWL	EWL	EWF	EWF	EWF
Operating Hours		124	124	124	125	125	8th Last Fault		EWL	EWL	EWF	ENF	ENF
Number of Starts							Evap. Water PD (PSIG)						
Start Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. # 3

Serial No. _____

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	8-31	9-1	9-1	9/1	9/2
	TIME	1930	0330	7:30	2100	0230
Unit is Running OK		OK	OK	OK	OK	OK
Leaving Evap. (Temp.)		41.1	41.7	41.5	41	41.0
Entering Evap. (Temp.)		51.0	47.3	42.1	50	47.4
Entering Cond. (Temp.)		74.8	73.5	74.2	79	73.0
Leaving Cond. (Temp.)		86.7	77.5	76.6	85	77.5
Evaporator (Refrig. Temp.)		38	39	39	38	38
Suction Line (Refrig. Temp.)		38	40	40	38	39
Superheat (Refrig. Temp.)		0.0	0.7	0.5	0.1	0.7
Discharge (Refrig. Line Temp.)		88	78	79	87	79
Condenser (Refrig. Temp.)		88	78	79	87	78
Liquid Line (Refrig. Temp.)		73	77	74	83	77
Liquid Subcool (Refrig. Temp.)		4.8	1.2	0.7	3.9	0.9
Cond. Approach (Temp.)						
Evap. Pressure (PSIG)		34	35	35	34	34
Cond. Pressure (PSIG)		102	85	86	99	85
Lift Pressure (PSIG)		68	50	51	65	51
Motor % RLA		78	62	59	72	63
Motor Amps						
Oil Flood Temp.		100	97	94	99	98
Oil Sump Temp.		118	116	116	119	116
Oil Gage Pressure		150	147	148	149	146
Oil Differential Pressure		113	115	115	113	114
Operating Hours		2920	2930	2930	2950	2950
Number of Starts		125	125	125	125	126
Start Hours Ago						
Unit Running OK		OK	OK	OK		OK

OPERATING CONDITION	DATE	8-31	9-1	9/1	9/1	9/2
	TIME	1930	0330	7:30	2100	0230
Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Unit Running OK		OK	OK	OK	OK	OK
Leaving Evap SPT.		40	40	40	40	40
Reset Leaving SPT.		NA	NA	NA		NA
Remote Reset SIG.		NA	NA	NA		NA
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		NA	NA	NA		NA
Remote Amp Signal		NA	NA	NA		NA
Soft Load Limit		40	40	40	40	40
Beginning Amp Limit		NA	NA	NA		NA
Ramp Up Time		NA	NA	NA		NA
Now Fault		NA	NA	NA		NA
Last Fault		NF	NF	NF	NF	NF
2nd Last Fault		EPL	EPL	EPL	EPL	EPL
3rd Last Fault		CWFL	CWFL	CWFL	CWFL	CWFL
4th Last Fault		EPL	EPL	EPL	EPL	EPL
5th Last Fault		NSI	NSI	NSI	NSI	NSI
6th Last Fault		NSI	NSI	NSI	NSI	NSI
7th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
8th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Evap. Water PD (PSIG)						
Cond. Water PD (PSIG)						

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____ :
 (Dual Unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O:

OPERATING CONDITION	DATE	9/4	9/4	9/4	9/5	9/6
	TIME	0030	7:30	1930	0300	1730
Unit is Running OK		OK	OK	OK	OK	OK
Leaving Evap. (Temp.)		41.0	41.5	41.1	41.1	40.8
Entering Evap. (Temp.)		49.1	51.6	51.0	48.7	52.9
Entering Cond. (Temp.)		74.6	75.3	80.4	78.6	80.6
Leaving Cond. (Temp.)		80.2	81.8	87.4	83.8	89.0
Evaporator (Refrig. Temp.)		34	34	38	39	37
Suction Line (Refrig. Temp.)		39	38	38	39	36
Superheat (Refrig. Temp.)		0.8	1.1	2.0	-0.2	-0.1
Discharge (Refrig. Line Temp.)		82	83	85	85	90
Condenser (Refrig. Temp.)		81	84	89	85	92
Liquid Line (Refrig. Temp.)		78	79	84	83	87
Liquid Subcool (Refrig. Temp.)		3.0	3.0	4.4	1.6	3.0
Cond. Approach (Temp.)						
Evap. Pressure (PSIG)		34	34	34	35	33
Cond. Pressure (PSIG)		90	84	103	96	106
Lift Pressure (PSIG)		56	60	69	61	73
Motor % RLA		68	71	77	69	90
Motor Amps						
Oil Feed Temp.		98	95	99	99	102
Oil Sump Temp.		116	115	117	117	116
Oil Gauge Pressure		147	149	151	148	146
Oil Differential Pressure		113	111	114	113	114
Operating Hours		3000	3010	3020	3030	3030
Number of Starts		125	125	125	125	127
Start Hours Ago						
Unit Running OK		OK	OK	OK	OK	OK

OPERATING CONDITION	DATE	9/4	9/4	9/4	9/5	9/6
	TIME	0030	7:30	1930	0300	1730
Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Unit Running OK		OK	OK	OK	OK	OK
Leaving Evap SPT.		40	40	40	40	40
Reset Leaving SPT.		NA	NA	NA	NA	NA
Remote Reset SIG.		NA	NA	NA	NA	NA
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		NA	NA	NA	NA	NA
Remote Amp Signal		NA	NA	NA	NA	NA
Soft Load Limit		40	40	40	40	40
Beginning Amp Limit		NA	NA	NA	NA	NA
Ramp Up Time		NA	NA	NA	NA	NA
Now Fault		NF	NF	NF	NF	NF
Last Fault		EPL	EPL	EPL	EPL	EPL
2nd Last Fault		CWFL	CWF	CWF	CWFL	CWF
3rd Last Fault		EPL	EPL	EPL	EPL	EPL
4th Last Fault		NST	NST	NST	NST	NST
5th Last Fault		NST	NST	NST	NST	NST
6th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
7th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
8th Last Fault		EWFL	EWFL	EWFL	EWFL	EWFL
Evap. Water PD (PSIG)						
Cond. Water PD (PSIG)						

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Ft. H2O: Cond. PD _____ Ft. H2O:

OPERATING CONDITION	DATE	9/9	9/9	9/10	9/10	9/10
	TIME	0300	2100	0100	0900	2100
Unit is Running OK		OK	OK	OK	OK	OK
Leaving Evap. (Temp.)		41.3	41.0	40.8	44.2	41.1
Entering Evap. (Temp.)		48.9	50.1	49.2	52.1	50.0
Entering Cond. (Temp.)		76.4	80.6	80.2	75.2	75.9
Leaving Cond. (Temp.)		81.6	86.9	86.1	81.3	81.5
Evaporator (Refrig. Temp.)		39	38	38	37	38
Suction Line (Refrig. Temp.)		39	38	38	39	39
Superheat (Refrig. Temp.)		0.2	-0.3	-0.2	1.5	0.9
Discharge (Refrig. Line Temp.)		83	88	87	83	82
Condenser (Refrig. Temp.)		82	88	87	84	82
Liquid Line (Refrig. Temp.)		81	86	85	78	79
Liquid Subcool (Refrig. Temp.)		1.2	1.8	1.6	5.4	3.4
Cond. Approach (Temp.)						
Evap. Pressure (PSIG)		35	34	34	33	34
Cond. Pressure (PSIG)		91	102	99	94	92
Lift Pressure (PSIG)		56	68	65	61	59
Motor % RLA		68	73	74	80	71
Motor Amps						
Oil Feed Temp.		99	99	99	99	98
Oil Sump Temp.		118	117	117	116	115
Oil Gauge Pressure		148	150	150	149	148
Oil Differential Pressure		113	114	114	113	114
Operating Hours		3080	3100	3110	3110	3120
Number of Starts		129	130	130	131	131
Start Hours Ago						
Unit Running OK		OK		OK	OK	

OPERATING CONDITION	DATE	9/9	9/9	9/10	9/10	9/10
	TIME	0300	2100	0100	0900	2100
Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Unit Running OK		OK	OK	OK	OK	OK
Leaving Evap SPT.		40	40	40	40	40
Reset Leaving SPT.		NA	NA	NA	NA	NA
Remote Reset SIG.		NA	NA	NA	NA	NA
Max. Amp Limit		100	100	100	100	100
Remote Amp Limit		NA	NA	NA	NA	NA
Remote Amp Signal		NA	NA	NA	NA	NA
Soft Load Limit		40	40	40	40	40
Beginning Amp Limit		NA	NA	NA	NA	NA
Ramp Up Time		NA	NA	NA	NA	NA
Now Fault		NF	NF	NF	NF	NF
Last Fault		EPL	EPI	EPL	EPL	EPI
2nd Last Fault		CWF	CWF	CWFL	CWF	CWF
3rd Last Fault		EPL	EPI	EPL	EPL	EPI
4th Last Fault		NST	NST	NST	NST	NST
5th Last Fault		NST	NST	NST	NST	NST
6th Last Fault		EWF	EWF	EWFL	EWF	EWF
7th Last Fault		EWF	EWF	EWFL	EWF	EWF
8th Last Fault		EWF	EWF	EWFL	EWF	EWF
Evap. Water PD (PSIG)						
Cond. Water PD (PSIG)						

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. #3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	9/13	9/15	9/17	9/18	9-19	OPERATING CONDITION	DATE	9/13	9/15	9/17	9/18	9-19
	TIME	130	2100	2100	2100	0300		TIME	130	2100	2100	2100	0300
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		41.5	41.3	41.3	41.7	41.3	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		48.3	49.1	51	48.3	48.5	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		750	712	74	735	759	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		795	768	80	779	807	Unit Running OK		OK	OK	OK	OK	OK
Evaporator (Refrig. Temp.)		38	38	39	39	39	Leaving Evap SPT.		40	40	40	40	40
Suction Line (Refrig. Temp.)		40	39	41	40	40	Reset Leaving SPT.		NA	NA		NA	NA
Superheat (Refrig. Temp.)		1.0	1.1	2.1	1.0	.5	Remote Reset SIG.		NA	NA		NA	NA
Discharge (Refrig. Line Temp.)		80	79	82	79	81	Max. Amp Limit		100	100	100	100	100
Condenser (Refrig. Temp.)		81	77	81	79	81	Remote Amp Limit		NA	NA		NA	NA
Liquid Line (Refrig. Temp.)		77	75	77	76	80	Remote Amp Signal		NA	NA		NA	NA
Liquid Subcool (Refrig. Temp.)		2.7	2.5	4.5	2.8	1.2	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		34	34	35	35	35	Beginning Amp Limit		NA	NA		NA	NA
Evap. Pressure (PSIG)		88	84	91	87	90	Ramp Up Time		NA	NA		NA	NA
Cond. Pressure (PSIG)		54	30	56	52	55	Now Fault		NA	NA		NA	NA
Lift Pressure (PSIG)		67	64	74	65	68	Last Fault		EPI	OFH	OFH	OFH	OFH
Motor % RLA		98	98	99	98	98	2nd Last Fault		EPI	EPI	EPL	EPI	EPL
Motor Amps		116	116	116	117	116	3rd Last Fault		EPI	ED	EPL	EPI	EPL
Oil Feed Temp.		147	145	145	147	148	4th Last Fault		EPI	EPI	EPI	EPI	EPL
Oil Sump Temp.		114	114	111	114	114	5th Last Fault		EPI	EPI		EPI	EPL
Oil Gauge Pressure		3180	3190	3230	3240	3250	6th Last Fault		CWEI	EPI		EPI	EPL
Oil Differential Pressure		133	135	137	138	138	7th Last Fault		EPI	EPI		EPI	EPL
Operating Hours							8th Last Fault		NSI	EPI		EPI	EPL
Number of Starts							Evap. Water PD (PSIG)						
Starts Hours Ago							Cond. Water PD (PSIG)						
Unit Running OK		OK	OK	OK	OK	OK							

Start Up Delta Temp. _____ : Shut Down Delta Temp. _____

(Dual unit(s) only; Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

OPERATING LOG RECORD

Chiller Model No. 3

Serial No. 2015

Refrigerant _____

Compressor R.L.A. _____ (Each compressor)

Leaving Chilled Water _____ F. (C.)

Entering Condenser Water _____ F. (C.)

Evap. PD _____ Fl. H2O: Cond. PD _____ Fl. H2O: _____

OPERATING CONDITION	DATE	9/23	9/23	9/25	9/26	9/26	OPERATING CONDITION	DATE	9/23	9/25	9/25	9/26	9/26
	TIME	2100	1315	2100	1245	1800		TIME	2100	1315	2100	1245	1800
Unit is Running OK		OK	OK	OK	OK	OK	Low Pressure Unloading		OFF	OFF	OFF	OFF	OFF
Leaving Evap. (Temp.)		46.6	46.9	40	41.8	41.9	Max. Amp Limit		100	100	100	100	100
Entering Evap. (Temp.)		50.3	51.4	44	48.3	50.3	Remote Amp Limit		OFF	OFF	OFF	OFF	OFF
Entering Cond. (Temp.)		730	74.6	74	74.3	74.6	Manual Amp Limit		OFF	OFF	OFF	OFF	OFF
Leaving Cond. (Temp.)		793	80.7	79	78.9	80.2	Unit Running OK		OFF	OFF	OFF	OFF	OFF
Evaporator (Refrig. Temp.)		37	38	36	39	38	Leaving Evap SPT.		OK	OK	OK	OK	OK
Suction Line (Refrig. Temp.)		38	39	39	40	39	Reset Leaving SPT.		40	40	40	40	40
Superheat (Refrig. Temp.)		1.1	0.9	0.5	0.5	0.8	Remote Reset SIG.		NA	NA		NA	NA
Discharge (Refrig. Line Temp.)		82	82	81	80	82	Max. Amp Limit		NA	NA		NA	NA
Condenser (Refrig. Temp.)		80	83	80	80	81	Remote Amp Limit		100	100	100	100	100
Liquid Line (Refrig. Temp.)		76	78	77	78	78	Remote Amp Signal		NA	NA		NA	NA
Liquid Subcool (Refrig. Temp.)		3.5	4.7	2.6	1.6	3.4	Soft Load Limit		40	40	40	40	40
Cond. Approach (Temp.)		33	34	34	35	34	Beginning Amp Limit		NA	NA		NA	NA
Evap. Pressure (PSIG)		87	93	87	88	90	Ramp Up Time		NA	NA		NA	NA
Cond. Pressure (PSIG)		54	59	53	53	56	Now Fault		NA	NA		NA	NA
Lift Pressure (PSIG)		72	77	67	65	72	Last Fault		NF	NF	NF	NF	NF
Motor % RLA							2nd Last Fault		EPL	EPL	EPL	SF	SF
Motor Amps							3rd Last Fault		EPL	EPL	EPL	SF	SF
Oil Flood Temp.		99	100	98	99	99	4th Last Fault		OTH	EPL	EPL	SF	SF
Oil Sump Temp.		115	116	116	116	116	5th Last Fault		OTH	OTH	OTH	EPL	EPL
Oil Gage Pressure		145	148	147	147	146	6th Last Fault		EPL	OTH	OTH	EPL	EPL
Oil Differential Pressure		113	113	114	114	112	7th Last Fault		EPL	EPL	EPL	EPL	EPL
Operating Hours		3300	3320	3300	3330	3340	8th Last Fault		EPL	EPL	EPL	OTH	OTH
Number of Starts		141	143	143	145	144			EPL	EPL	EPL	OTH	OTH
Start Hours Ago													
Unit Running OK		OK	OK	OK	OK	OK	Evap. Water PD (PSIG)						
Start Up Delta Temp.							Cond. Water PD (PSIG)						

Shut Down Delta Temp. _____
 (Dual unit(s) only: Enable Lag _____ %: Disable Lag _____ %: Delay Timer _____ minutes)

**ATTACHMENT 2
TO
BULLETIN 7
FOR
GESA 2018-1 SCI HOUTZDALE**

UTILITY INVOICES

QUESTION 12 REPLY

2016-2017

**WAGES
PROPANE
ELECTRIC
SEWER
WATER
COAL
OIL
FLY ASH**

	JULY	AUG	SEPT	OCT	NOV	DEC
WAGES	84,380.59	81,208.94	82,380.73	82,868.76	91,984.04	117,494.21
PROPANE	-	-	-	7,246.26	-	-
ELECTRIC	80,462.35	74,521.70	72,074.35	64,538.38	56,768.43	62,787.05
SEWER	63,295.70	63,295.70	63,295.70	63,295.70	69,695.70	63,295.70
WATER	144,926.39	144,926.39	144,926.39	144,926.39	144,926.39	144,926.39
COAL	-	-	-	-	-	-
OIL	45,175.45	52,451.97	43,533.04	71,132.52	79,690.96	111,585.39
FLY ASH	-	-	-	-	-	-

**WAGES
PROPANE
ELECTRIC
SEWER
WATER
COAL
OIL
FLY ASH**

	JAN	FEB	MARCH	APRIL	MAY	JUNE
WAGES	87,704.99					
PROPANE	8,331.79					
ELECTRIC	69,585.07					
SEWER	63,295.70					
WATER	132,002.06					
COAL	23,242.40					
OIL	51,186.24					
FLY ASH	4,862.65					

ORIGINAL INVOICE

PLEASE INCLUDE THESE NUMBERS WITH YOUR PAYMENT TO INSURE PROPER CREDIT



PROVANTA INC.
 P.O. BOX 411
 2096 ALLEGHENY BLVD.
 RENO, PA 16343
 814-676-8300 FAX: 814-677-6340

VENDOR: #192840

01/23/17	P0442	01105069
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PLEASE MAKE CHECKS PAYABLE TO AND MAIL TO

Provanta Inc
 P. O. Box 411
 Reno PA 16343

SOLD TO: DOC-SCI HOUTZDALE
 209 INSTITUTION DRIVE
 HOUTZDALE PA 16698

SHIP TO: DOC-SCI HOUTZDALE
 209 INSTITUTION DRIVE
 HOUTZDALE PA 16698

ORDER NUMBER	ORDER DATE	CUSTOMER ORDER NUMBER	LOC	SLS #	TEAR #	SHIP VIA	TERMS	INITIALS	PAGE	
00048630-00	01/23/17	SEE BELOW	300	000	300	BOBTAIL	NET 30	BAS	1	
ITEM	QTY SHIP'D	QTY B/O	CYLINDER		DESCRIPTION	UOM	UNIT PRICE	AMOUNT		
** Location: 300 ** LP 10002 C	8688	0			Hardgood P/O:4500828101 BULK PROPANE COMMERCIAL VOL: 8688	GAL	0.959	8331.79		
					Subtotal			8331.79		
					Cash/Dep Received			0.00		
TAXABLE AMOUNT							0.00		AMOUNT THIS INVOICE INCLUDING TAX	
									8331.79	



**WOODWARD TOWNSHIP SEWAGE
& WATER AUTHORITY**
PO BOX 6
HOUTZDALE, PA 16651
814-378-8211

INVOICE

DATE: 1/31/2017
INVOICE #: 6453

BILL TO:

Department of Corrections, SCI Houtzdale
Location code: 11HOUTZDAL
PO Box 69182
Harrisburg, PA 17106

P.O. NUMBER	TERMS	PROJECT
	Net 30	2184-TP

QUANTITY	DESCRIPTION	RATE	AMOUNT
Sewage-Plant	Monthly Users Fee. GROSS AMOUNT. Office Hours 8:30 am to 3:30 pm. Phone 814-378-8211	58,344.34	58,344.34
Message	ATTENTION: Customers are responsible for notifying Authority of discontinued water service. FAX Number 814-378-8245.	0.00	0.00
Loan Payment	Pre-Screen & Chem. Feed Buldg. Project	4,951.36	4,951.36
LOCATION CODE: 11HOUTZDAL			
<p>This institution is an Equal Opportunity Lender, Provider and Employer.</p>			
DUE 2/28/17. Service for JANUARY 2017. E-mail-tsar@verizon.net -Contact-Joann Dots.		TOTAL	\$63,295.70

PHONE (814) 378-8131
FAX (814) 378-8134

P.O. BOX 97
561 KIRK STREET



HOUTZDALE MUNICIPAL AUTHORITY

HOUTZDALE, PENNSYLVANIA 16651

February 1, 2017

The Department of Corrections, SCI Houtzdale
Location Code: 11HOUTZDAL
PO Box 69182
Harrisburg, PA 17106

Water Service for January 1 to January 31, 2017

Water Usage (Prison) for period	8,950,000 gallons
Water Usage (Residences) for period	2,000 gallons
Water Usage 1-1/2 inch bypass line	0 gallons
Total Usage for period	8,952,000 gallons
Water Usage under the minimum charge	6,975,000 gallons
Water Usage Overage	1,977,000 gallons

O & M Component Agreement, Section 4.3	\$116,250.00
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Line Item: Moshannon Creek Project Month (95)	\$15,752.06
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This Invoice Amount Due	\$132,002.06
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7120 Pointe Inverness Way
 FORT WAYNE, IN 46804
 260-432-6622
<http://www.petroleumtraders.com>

A Finance Charge of 1 1/2 % per month (18% annum) will be charged on all invoices not paid within terms of the sale.

Invoice Date 01/02/2017	P. O. Number: 4500798845	Account #: 160063/117	Invoice #: 1086609	Salesperson: ACCOUNT, BID	Carrier: BLAIR COUNTY OIL & SUPPLY INC
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Billing Address:

PENNSYLVANIA, COMMONWEALTH OF
 COMMONWEALTH OF PA - PO INVOICE
 PO BOX 69180
 HARRISBURG, PA 17106
 Email: 69180@pa.gov

Shipped To:

PENNSYLVANIA, COMMONWEALTH OF
 SCI HOUTZDALE
 209 INSTITUTION DRIVE
 HOUTZDALE, PA 16698
 County: CLEARFIELD, PA

Terms: PMT DUE AT PTC WITHIN 30 DAYS

Invoice

	Quantity	Unit Price	Amount
HEATING OIL 500 PPM (LOW SULFUR DYED ONLY USED FOR HEATING OIL)	7503.00	\$1.6997	\$12,752.85
BOL: 2150428 Gross: 7503.0/Net: 7582.0/G Temp: 37.6 API Gravity: 37.0 DYED DIESEL FUEL, 500 PPM USED FOR HEATING OIL. (OFF ROAD OR NON-TAXABLE USE ONLY, PENALTY FOR TAXABLE USE). FEDERAL DSL LUST TAX in price: \$0.001000 per gallon OIL SPILL TAX. in price: \$0.002140 per gallon			

Taxes

FEDERAL DSL LUST TAX \$0.001 on each of 7503 sold gallons EXEMPT: IN PRICE - License:	\$0.00
NORA (CT,DC,DE,ID,IN,KY,MA,MD,ME,MI,NC,NJ,NV,NY,OH,OR,SC,PA,VA,VT,WA,WI) \$0.002 on each of 7503 sold gallons	\$15.01
OIL SPILL TAX. \$0.00214 on each of 7503 sold non-renewable gallons EXEMPT: IN PRICE - License:	\$0.00
PA DYED DSL FRANCHISE TAX \$0.747 on each of 7503 gross gallons EXEMPT: OFF ROAD USE - License:	\$0.00
PA SALES TAX 6% of \$12752.85 EXEMPT: GOVERNMENT (ALL) - License:	\$0.00

Notes

- Petroleum Traders Corporation is a qualified small business concern as defined in 4PA code 2.32.

\$12767.86 PAYMENT DUE IN PETROLEUM TRADERS' OFFICES BY 02/01/2017

INVOICE TOTAL:

\$12,767.86

We reserve all other rights and remedies.



7120 Pointe Inverness Way
 FORT WAYNE, IN 46804
 260-432-6622
<http://www.petroleumtraders.com>

A Finance Charge of 1 1/2 % per month (18% annum) will be charged on all invoices not paid within terms of the sale.

Invoice Date 01/05/2017	P. O. Number: 4500798845	Account #: 160063/117	Invoice #: 1088691	Salesperson: ACCOUNT, BID	Carrier: BLAIR COUNTY OIL & SUPPLY INC
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Billing Address:

PENNSYLVANIA, COMMONWEALTH OF
 COMMONWEALTH OF PA - PO INVOICE
 PO BOX 69180
 HARRISBURG, PA 17106
 Email: 69180@pa.gov

Shipped To:

PENNSYLVANIA, COMMONWEALTH OF
 SCI HOUTZDALE
 209 INSTITUTION DRIVE
 HOUTZDALE, PA 16698
 County: CLEARFIELD, PA

Terms: PMT DUE AT PTC WITHIN 30 DAYS

Invoice

	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
HEATING OIL 500 PPM (LOW SULFUR DYED ONLY USED FOR HEATING OIL)	7504.00	\$1.7854	\$13,397.64
BOL: 2151345 Gross: 7504.0/Net: 7583.0/G Temp: 37.5 API Gravity: 37.0 DYED DIESEL FUEL, 500 PPM USED FOR HEATING OIL. (OFF ROAD OR NON-TAXABLE USE ONLY, PENALTY FOR TAXABLE USE). FEDERAL DSL LUST TAX in price: \$0.001000 per gallon OIL SPILL TAX. in price: \$0.002140 per gallon			

Taxes

FEDERAL DSL LUST TAX \$0.001 on each of 7504 sold gallons EXEMPT: IN PRICE - License:	\$0.00
NORA (CT,DC,DE,ID,IN,KY,MA,MD,ME,MI,NC,NJ,NV,NY,OH,OR,SC,PA,VA,VT,WA,WI) \$0.002 on each of 7504 sold gallons	\$15.01
OIL SPILL TAX. \$0.00214 on each of 7504 sold non-renewable gallons EXEMPT: IN PRICE - License:	\$0.00
PA DYED DSL FRANCHISE TAX \$0.747 on each of 7504 gross gallons EXEMPT: OFF ROAD USE - License:	\$0.00
PA SALES TAX 6% of \$13397.64 EXEMPT: GOVERNMENT (ALL) - License:	\$0.00

Notes

- Petroleum Traders Corporation is a qualified small business concern as defined in 4PA code 2.32.

\$13412.65 PAYMENT DUE IN PETROLEUM TRADERS' OFFICES BY 02/04/2017

INVOICE TOTAL:

\$13,412.65

We reserve all other rights and remedies.



7120 Pointe Inverness Way
 FORT WAYNE, IN 46804
 260-432-6622
<http://www.petroleumtraders.com>

A Finance Charge of 1 1/2 % per month (18% annum) will be charged on all invoices not paid within terms of the sale.

Invoice Date 01/19/2017	P. O. Number: 4500798845	Account #: 160063/117	Invoice #: 1093028	Salesperson: ACCOUNT, BID	Carrier: BLAIR COUNTY OIL & SUPPLY INC
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Billing Address:

PENNSYLVANIA, COMMONWEALTH OF
 COMMONWEALTH OF PA - PO INVOICE
 PO BOX 69180
 HARRISBURG, PA 17106
 Email: 69180@pa.gov

Shipped To:

PENNSYLVANIA, COMMONWEALTH OF
 SCI HOUTZDALE
 209 INSTITUTION DRIVE
 HOUTZDALE, PA 16698
 County: CLEARFIELD, PA

Terms: PMT DUE AT PTC WITHIN 30 DAYS

Invoice

	Quantity	Unit Price	Amount
HEATING OIL 500 PPM (LOW SULFUR DYED ONLY USED FOR HEATING OIL)	7500.00	\$1.6936	\$12,702.00
BOL: 2155247 Gross: 7500.0/Net: 7575.0/G Temp: 38.4 API Gravity: 37.0 DYED DIESEL FUEL, 500 PPM USED FOR HEATING OIL. (OFF ROAD OR NON-TAXABLE USE ONLY, PENALTY FOR TAXABLE USE). FEDERAL DSL LUST TAX in price: \$0.001000 per gallon OIL SPILL TAX. in price: \$0.002140 per gallon			

Taxes

FEDERAL DSL LUST TAX \$0.001 on each of 7500 sold gallons EXEMPT: IN PRICE - License:	\$0.00
NORA (CT,DC,DE,ID,IN,KY,MA,MD,ME,MI,NC,NJ,NV,NY,OH,OR,SC,PA,VA,VT,WA,WI) \$0.002 on each of 7500 sold gallons	\$15.00
OIL SPILL TAX. \$0.00214 on each of 7500 sold non-renewable gallons EXEMPT: IN PRICE - License:	\$0.00
PA DYED DSL FRANCHISE TAX \$0.747 on each of 7500 gross gallons EXEMPT: OFF ROAD USE - License:	\$0.00
PA SALES TAX 6% of \$12702.00 EXEMPT: GOVERNMENT (ALL) - License:	\$0.00

Notes

- Petroleum Traders Corporation is a qualified small business concern as defined in 4PA code 2.32.

\$12717.00 PAYMENT DUE IN PETROLEUM TRADERS' OFFICES BY 02/18/2017

INVOICE TOTAL:

\$12,717.00

We reserve all other rights and remedies.



7120 Pointe Inverness Way
 FORT WAYNE, IN 46804
 260-432-6622
<http://www.petroleumtraders.com>

A Finance Charge of 1 1/2 % per month (18% annum) will be charged on all invoices not paid within terms of the sale.

Invoice Date 01/30/2017	P. O. Number: 4500798845	Account #: 160063/117	Invoice #: 1096512	Salesperson: ACCOUNT, BID	Carrier: BLAIR COUNTY OIL & SUPPLY INC
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Billing Address:

PENNSYLVANIA, COMMONWEALTH OF
 COMMONWEALTH OF PA - PO INVOICE
 PO BOX 69180
 HARRISBURG, PA 17106
 Email: 69180@pa.gov

Shipped To:

PENNSYLVANIA, COMMONWEALTH OF
 SCI HOUTZDALE
 209 INSTITUTION DRIVE
 HOUTZDALE, PA 16698
 County: CLEARFIELD, PA

Terms: PMT DUE AT PTC WITHIN 30 DAYS

Invoice

	Quantity	Unit Price	Amount
HEATING OIL 500 PPM (LOW SULFUR DYED ONLY USED FOR HEATING OIL)	7500.00	\$1.6445	\$12,333.75
BOL: 2157788 Gross: 7500.0/Net: 7576.0/G Temp: 38.4 API Gravity: 37.0 DYED DIESEL FUEL, 500 PPM USED FOR HEATING OIL. (OFF ROAD OR NON-TAXABLE USE ONLY, PENALTY FOR TAXABLE USE). FEDERAL DSL LUST TAX in price: \$0.001000 per gallon OIL SPILL TAX. in price: \$0.002140 per gallon			

Taxes

FEDERAL DSL LUST TAX \$0.001 on each of 7500 sold gallons EXEMPT: IN PRICE - License:	\$0.00
NORA (CT,DC,DE,ID,IN,KY,MA,MD,ME,MI,NC,NJ,NV,NY,OH,OR,SC,PA,VA,VT,WA,WI) \$0.002 on each of 7500 sold gallons	\$15.00
OIL SPILL TAX. \$0.00214 on each of 7500 sold non-renewable gallons EXEMPT: IN PRICE - License:	\$0.00
PA DYED DSL FRANCHISE TAX \$0.747 on each of 7500 gross gallons EXEMPT: OFF ROAD USE - License:	\$0.00
PA SALES TAX 6% of \$12333.75 EXEMPT: GOVERNMENT (ALL) - License:	\$0.00

Notes

- Petroleum Traders Corporation is a qualified small business concern as defined in 4PA code 2.32.

\$12348.75 PAYMENT DUE IN PETROLEUM TRADERS' OFFICES BY 03/01/2017

INVOICE TOTAL:

\$12,348.75

We reserve all other rights and remedies.

