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SDV SERVICES INC

A SERVICE DISABLED VETERAN

OWNED SMALL BUSINESS

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1. General: During the period December 10-15, 2010, SDV Services Inc performed electrical testing and maintenance at the DVA Medical Center, Spokane, WA. All services were conducted in accordance with contract specifications, industry standards, manufacturers' recommendations, and National Fire Protection Association (NFPA) Publication Publication NFPA-70B, Recommended Practice For Electrical Equipment Maintenance.

2. Specifics: Overall, the electrical system is in good condition, and, if properly maintained, will provide safe reliable electrical power to the DVA Medical Center for many years. The electrical project to replace the medium voltage vault and equipment will be a significant improvement.

A. Equipment Identification: A considerable amount of equipment, especially panel boards and circuit breakers, was not properly marked. Panel board designations were especially poor. Panel board directories are in need of up-dating.

B. Main Medium Voltage Vault: The Powercon switches and associated relaying are in good condition. The automatic transfer system operated properly during testing. The metal clad shelter has suffered from moisture damage and is rusting. Some moisture damage has occurred on grounds and bus work.

C. Building 19: Switchboards A and B had circuit breakers that failed to manually trip, requiring considerable cleaning, lubricating and exercising to achieve proper operation. Some circuit breakers are not properly labeled with their loads. After servicing, all circuit breakers tripped properly during load testing of the breakers.

D. Building 1: Many molded case circuit breakers failed to trip manually, requiring considerable exercising of the breaker operating mechanism before frozen mechanisms would operate properly. Drawings were not accurate, with locations and panel board designations missing or being changed. On the 9th floor penthouse, many problems occurred when the Essential Equipment Riser was de-energized. No alternate source of power was available resulting in the loss of communications and the Nurse Call System. Also, the medical gas and vacuum systems are in dire need of an alternate power source to prevent prolonged during servicing of the primary power feed from the EDSS switchboard. No emergency lighting was available in this area to allow for any work to be performed safely.

← It is all emerg. Needs to have some normal power lighting up here.

Welch, Richard P III (SPO)

From: Nielsen, Sandy J. (SES) (SPO)
Sent: Wednesday, August 31, 2011 10:54 AM
To: Spokane Exchange Users
Subject: weekly message 8-31-11

Dear Staff,

Along with other Tetrad members, I recently attended a Senior Leadership Meeting in Chicago, where VA Central Office leaders had an opportunity to talk with facility leadership teams about the challenges ahead. Because these challenges will shape the direction of the VA over the next few years, I wanted to share with you the perspective from the top.

Here are the big challenges:

Health care reform. If the current legislation stands, by 2014 veterans, along with everyone else, will be able to choose where they get their care. We know that there are healthcare entities already developing marketing strategies aimed at veterans.

The economy. We as a Nation have overspent, and will need to be in a cut-back mode for the next few years. The Office of Management and Budget (OMB) has instructed federal agencies when they submit their budget proposals for FY13 to reduce their request to 10% lower than they received in their FY 11 budgets. How this will eventually may play out in our budget, we do not yet know.

The state of health care in this country. The United States pays more per capita for health care, with worse outcomes, than any other developed country. In addition, the accelerating cost of providing this care is not sustainable.

To meet these challenges, the VA has come up with a simple strategy: We need to be so good that when Veterans can choose, they choose us. They are calling this "patient centered care", a term offensive to some because it seems to imply we don't currently care about our patients. But here is what they mean by patient centered care. It's about transforming the system, not individuals. It's moving from a disease focus to a patient focus.

Patient centered care is not: building a better "box". It's not about better customer service or better access (although we need to pay attention to those also). If Henry Ford had asked his potential customers how they would improve transportation, they would have said "a faster horse". Patient Centered Care is not about a faster horse.

Patient centered care is transforming the way we think about patient care: finding out who the patient is, and what gives their life meaning and purpose. If we can understand why health is important to them (so I can go dancing with my wife, play catch with my grandson, enjoy a walk around the block) we can begin to build a personalized health plan for them and teach them the tools they need to achieve their goals. Individuals will not change their behavior until we find out what matters to them and match those needs to their health care goals.

And here's a nice side effect: If we get the content right, the outcomes and cost efficiency will follow.

VHA is opening a new Office of Patient Centered Care, led by Dr Tracy Gaudet, formerly with Duke University and a preeminent leader in this field, and there will be much more to come on VA's direction in this area.

Sandy J. Nielsen
Director

Panel board breakers were in much better condition this maintenance period. Few frozen operating mechanism were found.

E. Boiler Plant: The ASCO automatic transfer switch is of an obsolete design, with open type relays that are prone to failure. The main switchboard main circuit breaker failed to trip manually and had to be disassembled and repaired before the breaker would operate properly.

* The Emergency Switchboard is not clearly marked as an emergency switchboard that is energized from the automatic transfer switch and will remain energized unless both the normal and generator power sources are turned off.

* G. Medium Voltage Cables: Two potentially defective load breaker elbows, H1A and H1B, on the Building 1 transformer were found during Infra-Red scanning and should be inspected for loose or damaged connections. All cables were insulation tested and no problems were detected. Since a radial system is used for the medium voltage distribution system, isolation of each segment of cable is difficult and troubleshooting without major disruption of power to many buildings is impossible.

H. Oil Transformers: All oil samples were tested by a certified laboratory and no problems were detected during the testing. No loose connections were found on the transformers. Several transformers are rusting and must have corrective action taken if the transformers are to last for many years.

G. The emergency generator systems operated properly and reliably during the testing period. After the completion of the three year testing, a review should be made to determine if critical areas were properly powered during the frequent maintenance outages, such as the 9th floor penthouse.

A misunderstanding exist here. Everything on the 9th floor will be energized when the generator is running. Everything is on Equipment Bus.

** We need to install a normal power panel on 9
Loads for the new panel:*

- Some lighting*
- Transfer switch to energize:*
 - Nurse Call*
 - Paging*
 - Med. Air Compressors*
 - Vacuum Pumps.*



Electrical Testing & Maintenance

December 16, 2009

Exit Briefing: Electrical Testing and Maintenance
VAMC Spokane, WA

1. First, we wish to express our appreciation for the excellent support provided by the Rick and Dick team. These two individuals worked many long and arduous hours to keep the project flowing as smoothly as possible, with minimum disruption to the medical center.
2. Secondly, we wish to express our appreciation to the HVAC personnel for their excellent support during the project. They were constantly present to help alleviate any problems or disruptions created by the project.
3. Overall: The electrical system and electrical equipment, except as noted, are in good condition. Since the project essentially creates a major shaking out of the entire electrical system, many correctable problems are revealed. The large failure rate of UPS systems during power outages was unprecedented and needs full attention until corrected. No feedback was available about any bio-med equipment problems. The telephone system problem was a prime example. Evidently, this rectifier problem was not initiated during this project. The 9th floor medical gas and vacuum systems are in dire need of an alternate power source to prevent prolonged downtime during any servicing of the primary power feed from the EDSS switchboard. The entire backup emergency system, including the EDSS switchboard, should be reviewed to insure that maximum use of backup power is allowed by the system. This backup power includes both generator and UPS type equipment. The existing single line and power riser diagrams are outdated and lack information for several vital systems such as the EDSS switchboard and Switchboards A and B.
4. We noted that all electrical and HVAC personnel were wearing personal protective clothing. Most VA's throughout the country are only beginning to address this situation and normally only the electrical personnel are issued the flame retardant clothing. We perform electrical arc flash studies and present electrical safety classes at many VAMC's and have to emphasize that HVAC personnel are subjected to the same hazards as the electrical personnel.

5. Problem Areas:

- a. Spare circuit breaker, Westinghouse DS type, in the NHCU main switchboard has a defective manual charging mechanism and needs repair. *A total power shutdown to remove & replace. Leave as is until needed.*
- b. Chiller switchboard had excessive bus vibrations during testing and should be monitored during chiller operations for any further electrical noise.
- c. VFD AHU#20-hot spot on connections.
- d. Building 1-1500 KVA transformer H1A and H1B load break elbows show hot spots. *Pictures would help*
- e. 9th Floor 300 amp Square D breaker was difficult to reset after testing-this problem occurred three ago. Recommend that a spare breaker be obtained for this vital breaker. *E091223-001 Breaker is on order, Replaced May 2010.*
- f. Single phase problem on Building 27 GE 225 amp circuit breaker-This problem needs to be referred to GE for analysis-The breaker uses a blow apart contact configuration for current limiting purposes and this problem could possibly occur in similar breakers. Since the breaker did not trip but suffered an internal failure, a similar problem in a breaker feeding motor type loads could result in a single-phasing of a operating motor with a resulting considerable damage to the motor. *This was a human mistake when we installed the tested breaker. I have resolved this. Dick Welch*
- g. The arc flash labels on the electrical equipment do not show the approach boundaries and PPE requirements as required by NFPA-70E. *I am currently using the old study to complete this requirement. Dick Welch*
- h. The present radial distribution system for the building transformers results in prolonged outages to service the transformers. *Contracts are let that will solve this problem. Dick Welch*

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RECOMMENDATIONS:

1. Perform molded case circuit breaker testing in accordance VHA Directive 2000-046, Dated November 30, 2000, page 4 Section 5. Paragraph (6)(8). *Need second election to make this possible*
2. Initiate a project to repair the metal clad shelter for the Medium Voltage Vault Building 20. *Entire switch gear will be replaced under a current bid contract.*
3. Initiate a project to correct the rust problems on the oil type transformers.
4. Initiate a project to study and correct any grounding and neutral problems, especially in Building 1. *Any is so vague as to be unhelpful. Need specific locations that raised this suspicion.*
5. Initiate a project to properly mark all panel boards and circuit breakers. *Currently in progress*
6. Initiate a project to properly mark all electrical equipment with arc flash warning labels in accordance with OSHA and the National Electric Code. *Currently in progress. About 80% complete. 13 May 10*
7. Perform a study of the emergency distribution system to insure that all emergency needs are properly met and determine what equipment, especially automatic transfer switches should be replaced. Special consideration should be given to use of automatic transfer switches with maintenance bypass provisions. *The electrical distribution project is addressing this. The 9th fl. will be addressed this year.*
8. Initiate a study to determine if the medium voltage system should be changed to a loop system to allow for isolation of individual transformers and buildings without disruption of electrical power to all buildings on the radial system. *The electrical distribution project is addressing this.*

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DEFECTIVE EQUIPMENT LIST
VAMC SPOKANE, WA
DECEMBER 2009

LOCATION	DEFECTIVE EQUIPMENT	CORRECTIVE ACTION
BUILDING 1	OIL TRANSFORMER-H1A AND H1B LOAD BREAK ELBOWS HAVE A SLIGHT TEMPERATURE RISE	INSPECT LOAD BREAKER-REPAIR/REPLACE AS NECESSARY
BOILER	OIL TRANSFORMER IS RUSTY	DE-ENERGIZE, CLEAN, APPLY RUST CONVERTER AND REPAINT.
BUILDING 20 <i>Done</i>	METAL CLAD SHELTER HAS ROOF LEAKS AND RUST HAS DEVELOPED	CORRECT ROOF LEAKS AND CORRECT RUST PROBLEMS
BUILDING 12 NHC <i>Done</i>	SPARE WESTINGHOUSE DS CIRCUIT BREAKER HAS A DEFECTIVE CHARGING MECHANISM	REPAIR CHARGING MECHANISM
CHILLER PLANT <i>?</i>	MAIN SWITCHBOARD (NEW) HAS EXCESSIVE VIBRATION ON MAIN SWITCHBOARD BUS	MONITOR-REPORT TO MANUFACTURER IF PROBLEM PERSISTS
BUILDING 1, 9 TH FLOOR <i>Done</i>	SQUARE D 300 AMP CIRCUIT BREAKER IS DIFFICULT TO RESET AFTER TESTING-A REPEAT PROBLEM FROM 2006.	REPLACE THE CIRCUIT BREAKER

No it does not

Tag as defective + leave as is until needed if ever.

Breaker is on order. 11 May 10 Replaced in May 2010

<p>BUILDING 27</p> <p><i>Done</i></p>	<p>GE 225 AMP CIRCUIT BREAKER HAD AN INTERNAL SINGLE PHASE PROBLEM</p>	<p>RECOMMEND THAT GE BE ASKED TO INSPECT THE BREAKER AND IDENTIFY THE CAUSE OF THE SINGLE PHASE PROBLEM.</p>
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Repaired in house the next day. Problem was a cross between 109 second bolt.

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MEDIUM VOLTAGE PROTECTIVE RELAY TEST DATA

EQUIPMENT LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT ID: LINE 2 SWITCH MV VAULT MFTR: GE

TEST ENGINEER: MICHAEL BRUNEIO DATE: 12-13-09

TEST ENGINEER: MICHAEL DROZDA

PHASE	STYLE OR TYPE	CAT #	O/C RANGE	INST RANGE	C/T RATIO	P/T RATIO				
A, B, C	PJC	12PJC11A4	25-60 DC	N/A	300:5	14400:120				
A, B, C	BASLER BE-4	BE4-47N/27	N/A	N/A	N/A	N/A				
PHASE	O/C SET	TIME SET	TEST POINTS			INST SET	TEST POINTS			INSULATION MEGA-OHMS
A	60	INST	25	40	60	N/A				2000
B	60	INST	25	40	60	N/A				2000
C	60	INST	25	40	60	N/A				2000

OTHER:

UNDERVOLTAGE RELAYS:

UNDERVOLTAGE RELAYS:

PHASE	TYPE	CAT #	VOLTAGE RANGE	SET	TIMES DIAL RANGE	SET
A,B,C	CV-7	1963376A	55-140	93	0-10	2.25

PHASE	VOLTAGE TEST POINTS			TIME TEST POINTS			INSULATION MEGA-OHM
A,B,C BASLER 47 RELAY	N/A	N/A	N/A	N/A	N/A	N/A	2000

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MEDIUM VOLTAGE PROTECTIVE RELAY TEST DATA

EQUIPMENT LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT ID: LINE 1 SWITCH MV VAULT MFTR: GE

TEST ENGINEER: MICHAEL BRUNEIO DATE: 12-13-09

PHASE	STYLE OR TYPE		CAT #			O/C RANGE	INST RANGE		C/T RATIO	P/T RATIO
A, B, C	PJC		12PJC11A4			25-60 DC	N/A		300:5	14400:120
A, B, C	BASLER BE-4		BE4-47N/27			N/A	N/A		N/A	N/A
PHASE	O/C SET	TIME SET	TEST POINTS			INST SET	TEST POINTS			INSULATION MEGA-OHMS
A	60	INST	25	40	60	N/A				2000
B	60	INST	25	40	60	N/A				2000
C	60	INST	25	40	60	N/A				2000

OTHER:

UNDERVOLTAGE RELAYS:

PHASE	TYPE		CAT #	VOLTAGE RANGE		SET	TIMES DIAL RANGE	SET
A,B,C	CV-7		1963376A	55-140		93	0-10	2.25
PHASE	VOLTAGE TEST POINTS			TIME TEST POINTS			INSULATION MEGA-OHM	
A,B,C BASLER 47 RELAY	N/A	N/A	N/A	N/A	N/A	N/A	2000	

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ELECTRICAL SWITCHGEAR-ASSOCIATED EQUIPMENT

EQUIPMENT LOCATION: VA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT ID: RADIAL B

MANUFACTURER: POWERCON

MODEL/TYPE: S-7497 D7474

SERIAL NUMBER: 71246

VOLTAGE: 13.8 KVAC

AMPERAGE: 600 AMPS

TEST ENGINEER/DATE: MICHAEL BRUNEIO/12-13-09

SERVICE PERFORMED	ENCLOSURE	OPERATING MECHANISM	CABLE /BUS	INTERLOCKS/ SAFETIES
CLEAN/LUBE	YES	YES	YES	YES
RUST/ CORROSION	RUSTY	OK	MOISTURE ON BUS	OK
CONNECTIONS	GOOD	GOOD	GOOD	N/A
CONTROL WIRING	OK	OK	OK	N/A
METERING/ RELAYS	N/A	OK	N/A	N/A
INSULATORS	OK	OK	OK	N/A
FUSE/FUSE HOLDERS	OK	N/A	N/A	N/A
HEATERS	OK	N/A	OK	N/A
TEST RESULTS	PHASE A	PHASE B	PHASE C	REMARKS
INSULATION TEST PHASE TO PHASE	2000	2000	2000	N/A
INSULATION TEST PHASE TO GRND	2000	2000	2000	N/A
CONTACT RESISTANCE	.12	.11	.11	N/A
OTHER TESTS	N/A	N/A	N/A	N/A

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ELECTRICAL SWITCHGEAR-ASSOCIATED EQUIPMENT

EQUIPMENT LOCATION: VA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT ID: RADIAL A

MANUFACTURER: POWERCON

MODEL/TYPE: S-7497 D7474

SERIAL NUMBER: 71245

VOLTAGE: 13.8 KVAC

AMPERAGE: 600 AMPS

TEST ENGINEER/DATE: MICHAEL BRUNEIO/12-13-09

SERVICE PERFORMED	ENCLOSURE	OPERATING MECHANISM	CABLE /BUS	INTERLOCKS/ SAFETIES
CLEAN/LUBE	YES	YES	YES	YES
RUST/ CORROSION	RUSTY	OK	MOISTURE ON BUS	OK
CONNECTIONS	GOOD	GOOD	GOOD	N/A
CONTROL WIRING	OK	OK	OK	N/A
METERING/ RELAYS	N/A	OK	N/A	N/A
INSULATORS	OK	OK	OK	N/A
FUSE/FUSE HOLDERS	OK	N/A	N/A	N/A
HEATERS	OK	N/A	OK	N/A
TEST RESULTS	PHASE A	PHASE B	PHASE C	REMARKS
INSULATION TEST PHASE TO PHASE	2000	2000	2000	N/A
INSULATION TEST PHASE TO GRND	2000	2000	2000	N/A
CONTACT RESISTANCE	.12	.12	.13	N/A
OTHER TESTS	N/A	N/A	N/A	N/A

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ELECTRICAL SWITCHGEAR-ASSOCIATED EQUIPMENT

EQUIPMENT LOCATION: VA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT ID: LINE 2

MANUFACTURER: POWERCON

MODEL/TYPE: S-7497 D7474

SERIAL NUMBER: 71243

VOLTAGE: 13.8 KVAC

AMPERAGE: 600 AMPS

TEST ENGINEER/DATE: MICHAEL BRUNEIO/12-13-09

SERVICE PERFORMED	ENCLOSURE	OPERATING MECHANISM	CABLE /BUS	INTERLOCKS/ SAFETIES
CLEAN/LUBE	YES	YES	YES	YES
RUST/ CORROSION	RUSTY	OK	MOISTURE ON BUS	OK
CONNECTIONS	GOOD	GOOD	GOOD	N/A
CONTROL WIRING	OK	OK	OK	N/A
METERING/ RELAYS	N/A	OK	N/A	N/A
INSULATORS	OK	OK	OK	N/A
FUSE/FUSE HOLDERS	OK	N/A	N/A	N/A
HEATERS	OK	N/A	OK	N/A
TEST RESULTS	PHASE A	PHASE B	PHASE C	REMARKS
INSULATION TEST PHASE TO PHASE	2000	2000	2000	N/A
INSULATION TEST PHASE TO GRND	2000	2000	2000	N/A
CONTACT RESISTANCE	.11	.11	.11	N/A
OTHER TESTS	N/A	N/A	N/A	N/A

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ELECTRICAL SWITCHGEAR-ASSOCIATED EQUIPMENT

EQUIPMENT LOCATION: VA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT ID: LINE 1

MANUFACTURER: POWERCON

MODEL/TYPE: S-7497 D7474

SERIAL NUMBER: 71244

VOLTAGE: 13.8 KVAC

AMPERAGE: 600 AMPS

TEST ENGINEER/DATE: MICHAEL BRUNEIO/12-13-09

SERVICE PERFORMED	ENCLOSURE	OPERATING MECHANISM	CABLE /BUS	INTERLOCKS/ SAFETIES
CLEAN/LUBE	YES	YES	YES	YES
RUST/ CORROSION	RUSTY	OK	MOISTURE ON BUS	OK
CONNECTIONS	GOOD	GOOD	GOOD	N/A
CONTROL WIRING	OK	OK	OK	N/A
METERING/ RELAYS	N/A	OK	N/A	N/A
INSULATORS	OK	OK	OK	N/A
FUSE/FUSE HOLDERS	OK	N/A	N/A	N/A
HEATERS	OK	N/A	OK	N/A
TEST RESULTS	PHASE A	PHASE B	PHASE C	REMARKS
INSULATION TEST PHASE TO PHASE	2000	2000	2000	N/A
INSULATION TEST PHASE TO GRND	2000	2000	2000	N/A
CONTACT RESISTANCE	.10	.11	.10	N/A
OTHER TESTS	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: CATSCAN

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.12	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	92.8	91.7	92.4	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	3600	3600	3600	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: FEEDER TO EDSS ESSENTIAL CRITICAL

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>.1-.5</u> 1-4
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>.1</u> 1
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.10	.09	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	95.1	94.8	95.2	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	5400	5400	5400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	60
G/F TRIP TIME	N/A	N/A	N/A	.1

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: FEEDER TO EDSS ESSENTIAL EQUIPMENT

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 2000 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /2000 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.09	.08	.08	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	2000	2000	2000	
LONG TIME AMPERES	6000	6000	6000	-----
L/T TRIP TIME	92.8	93.1	93.7	-----
S/T AMPS	12000	12000	12000	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	18000	18000	18000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: FEEDER TO EDSS ESSENTIAL LIFE SAFETY

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.12	.12	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	93.8	94.7	93.5	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	3600	3600	3600	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: LOADING DOCK DISCONNECT (SPARE)

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /300 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.15	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	300	300	300	
LONG TIME AMPERES	900	900	900	-----
L/T TRIP TIME	93.6	93.9	93.5	-----
S/T AMPS	1800	1800	1800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	270 0	2700	2700	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: MAIN CIRCUIT BREAKER

MANUFACTURER: GE

MODEL/TYPE: AKR-2-100

SERIAL NUMBER: N/A

FRAME SIZE: 4000 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /2500 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.13	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	2500	2500	2500	
LONG TIME AMPERES	7500	7500	7500	-----
L/T TRIP TIME	45.1	45.4	45.2	-----
S/T AMPS	15000	15000	15000	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	22500	22500	22500	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: PANEL 1M

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /300 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.12	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	300	300	300	
LONG TIME AMPERES	900	900	900	-----
L/T TRIP TIME	94.83	94.97	94.05	-----
S/T AMPS	1800	1800	1800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2700	2700	2700	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: SPARE 2

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /800 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.13	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	800	800	800	
LONG TIME AMPERES	2400	2400	2400	-----
L/T TRIP TIME	95.3	94.2	95.4	-----
S/T AMPS	4800	4800	4800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	7200	7200	7200	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: SPARE (F)

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 400 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /150 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.15	.15	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	150	150	150	
LONG TIME AMPERES	450	450	450	-----
L/T TRIP TIME	93.8	94.1	93.5	-----
S/T AMPS	900	900	900	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	1350	1350	1350	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD A, VAMC, SPOKANE, WA

BREAKER ID: SPARE (OLD PANEL M)

MANUFACTURER: GE

MODEL/TYPE: THP

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /300 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.13	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	300	300	300	
LONG TIME AMPERES	900	900	900	-----
L/T TRIP TIME	95.6	94.8	95.3	-----
S/T AMPS	1800	1800	1800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2700	2700	2700	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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ELECTRICAL SWITCHGEAR-ASSOCIATED EQUIPMENT

EQUIPMENT LOCATION: VAMC, SPOKANE, WA

EQUIPMENT ID: SWITCHBOARD B

MANUFACTURER: GENERAL ELECTRIC

MODEL/TYPE: N/A

SERIAL NUMBER: N/A

VOLTAGE: 208

AMPERAGE: 2500 AMPS

TEST ENGINEER/DATE: JERRY PARKS/12-13-09

SERVICE PERFORMED	ENCLOSURE	OPERATING MECHANISM	CABLE /BUS	INTERLOCKS/ SAFETIES
CLEAN/LUBE	YES	YES	YES	YES
RUST/ CORROSION	OK	OK	OK	OK
CONNECTIONS	GOOD	GOOD	GOOD	N/A
CONTROL WIRING	OK	OK	OK	N/A
METERING/ RELAYS	N/A	OK	N/A	N/A
INSULATORS	OK	OK	OK	N/A
FUSE/FUSE HOLDERS	OK	N/A	N/A	N/A
HEATERS	OK	N/A	OK	N/A
TEST RESULTS	PHASE A	PHASE B	PHASE C	REMARKS
INSULATION TEST PHASE TO PHASE	2000	2000	2000	N/A
INSULATION TEST PHASE TO GRND	2000	2000	2000	N/A
CONTACT RESISTANCE	.09	.10	.09	N/A
OTHER TESTS	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B A/C1 & A/C2

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /300 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.17	.17	.15	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	300	300	300	
LONG TIME AMPERES	900	900	900	-----
L/T TRIP TIME	94.3	94.7	94.1	-----
S/T AMPS	1800	1800	1800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2700	2700	2700	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B MAIN

MANUFACTURER: GE

MODEL/TYPE: AKR-2-100

SERIAL NUMBER: N/A

FRAME SIZE: 4000 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /2500 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.09	.09	.09	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	2500	2500	2500	
LONG TIME AMPERES	7500	7500	7500	-----
L/T TRIP TIME	44.7	45.9	45.2	-----
S/T AMPS	15000	15000	15000	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	22500	22500	22500	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL MB-1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /100 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.16	.16	.16	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	100	100	100	
LONG TIME AMPERES	300	300	300	-----
L/T TRIP TIME	94.4	94.8	94.2	-----
S/T AMPS	600	600	600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	900	900	900	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B NO LABEL

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.16	.14	.16	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	95.7	95.6	96.1	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2400	2400	2400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL 1D1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.11	.13	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	94.43	94.86	94.99	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	5400	5400	5400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL 2M1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.16	.15	.15	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	21.6	22.1	21.9	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	3600	3600	3600	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL 3M1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.11	.11	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	96.3	95.9	95.3	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	5400	5400	5400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE: (678) 546-9393 FAX: (770) 271-1278

LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL 5M1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.14	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	93.7	93.4	94.1	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	3600	3600	3600	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL 7M1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.09	.09	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	94.8	93.3	94.5	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2400	2400	2400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL 8U

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.13	.11	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	95.5	95.1	95.4	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2400	2400	2400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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845 LONG BRANCH CIRCLE
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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PHYSICAL THERAPY BUILDING

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.10	.10	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	94.5	94.9	95.1	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2400	2400	2400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B SPARE

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.13	.13	.12	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	94.5	94.6	93.9	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	3600	3600	3600	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B SPARE 1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.11	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	95.8	94.9	95.6	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2400	2400	2400	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B X-RAY 1, 2, 4

MANUFACTURER: GE

MODEL/TYPE: THP1616SS

SERIAL NUMBER: N/A

FRAME SIZE: 1600 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /800 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.112	.12	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	800	800	800	
LONG TIME AMPERES	2400	2400	2400	-----
L/T TRIP TIME	92.7	92.5	92.4	-----
S/T AMPS	4800	4800	4800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	7200	7200	7200	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 19 SWITCHBOARD B, VAMC, SPOKANE, WA

BREAKER ID: SWITCHBOARD B PANEL C-1

MANUFACTURER: GE

MODEL/TYPE: THP88SS

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /150 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-13-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.15	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	150	150	150	
LONG TIME AMPERES	450	450	450	-----
L/T TRIP TIME	94.8	94.2	93.9	-----
S/T AMPS	900	900	900	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	1350	1350	1350	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A



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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL 1M2

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.15	.15	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	44.3	44.6	43.7	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	6000	6000	6000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL ELEV 1

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.13	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	44.5	43.1	44.3	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	6000	6000	6000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL ELEV 2

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.12	.12	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	45.5	45.0	44.9	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	4000	4000	4000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL ELEV 3

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.13	.12	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	44.7	44.1	43.8	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	4000	4000	4000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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845 LONG BRANCH CIRCLE
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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER EQUIPMENT BUS

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 416

SERIAL NUMBER: N/A

FRAME SIZE: 1600 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /1200 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.11	.12	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	1200	1200	1200	
LONG TIME AMPERES	3600	3600	3600	-----
L/T TRIP TIME	43.7	43.9	43.1	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	12000	12000	12000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL 1M3

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 420

SERIAL NUMBER: N/A

FRAME SIZE: 2000 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-510 /1200 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.11	.11	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	1200	1200	1200	
LONG TIME AMPERES	3600	3600	3600	-----
L/T TRIP TIME	45.2	44.9	44.8	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	12000	12000	12000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL A

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /200 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.15	.14	.15	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	200	200	200	
LONG TIME AMPERES	600	600	600	-----
L/T TRIP TIME	44.5	44.8	44.1	-----
S/T AMPS	1200	1200	1200	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	2000	2000	2000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE: (678) 546-9393 FAX: (770) 271-1278

LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: FEEDER PANEL X-RAY B

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IIA /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.13	.13	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	44.0	44.3	44.1	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	6000	6000	6000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE: (678) 546-9393 FAX: (770) 271-1278

LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: GENERATOR FEEDER EQUIPMENT BRANCH

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 420

SERIAL NUMBER: N/A

FRAME SIZE: 2000 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IA /2000 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.10	.10	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	2000	2000	2000	
LONG TIME AMPERES	6000	6000	6000	-----
L/T TRIP TIME	42.8	42.4	42.7	-----
S/T AMPS	12000	12000	12000	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	20000	20000	20000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: GENERATOR FEEDER CRITICAL BRANCH

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IA /800 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>A-G</u> .1-.5
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>A</u> .1
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.10	.10	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	800	800	800	
LONG TIME AMPERES	2400	2400	2400	-----
L/T TRIP TIME	44.8	45.1	44.9	-----
S/T AMPS	4800	4800	4800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	8000	8000	8000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	160
G/F TRIP TIME	N/A	N/A	N/A	.1

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE: (678) 546-9393 FAX: (770) 271-1278

LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: GENERATOR FEEDER LIFE SAFETY BRANCH

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IA /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>A-G</u> .1-.5
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>A</u> .1
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.13	.12	.12	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	44.9	44.2	45.1	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	4000	4000	4000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	120
G/F TRIP TIME	N/A	N/A	N/A	.1

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: NORMAL FEEDER EQUIPMENT BRANCH

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 420

SERIAL NUMBER: N/A

FRAME SIZE: 2000 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IA /2000 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.12	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	2000	2000	2000	
LONG TIME AMPERES	6000	6000	6000	-----
L/T TRIP TIME	42.9	43.2	42.6	-----
S/T AMPS	12000	12000	12000	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	20000	20000	20000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: NORMAL FEEDER CRITICAL BRANCH

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IA /800 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>A-G</u> .1-.5
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>A</u> .1
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.10	.11	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	800	800	800	
LONG TIME AMPERES	2400	2400	2400	-----
L/T TRIP TIME	43.1	43.7	43.2	-----
S/T AMPS	4800	4800	4800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	8000	8000	8000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	160
G/F TRIP TIME	N/A	N/A	N/A	.1

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 1 EMERGENCY SWITCHBOARD, VAMC, SPOKANE, WA

BREAKER ID: NORMAL FEEDER LIFE SAFETY BRANCH

MANUFACTURER: WESTINGHOUSE

MODEL/TYPE: DS 206

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: AMPTECTOR IA /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-11-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>A-G</u> .1-.5
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	10	<u>A</u> .1
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.13	.13	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	45.5	45.3	45.9	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	4000	4000	4000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	120
G/F TRIP TIME	N/A	N/A	N/A	.1



SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE: (678) 546-9393 FAX (770) 518-9215

LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

EQUIPMENT DESIGNATION: BUILDING 1: 1ST FLOOR

TEST ENGINEER/TEST DATE: JMP/12-11-09

TEST DATA/PARAMETERS							
BREAKER	PANEL	POLES	FEEDER NAME	AMPERES	TRIP TIME BY PHASE		
					-A-	-B-	-C-
1	1M	3	PANEL 1M1	225	42.4	43.8	42.9
2	1M	3	PANEL B	225	45.8	45.4	44.2
3	1M	3	PANEL 1C2	225	48.1	47.3	48.2
4	1M	3	PANEL 1C1	225	50.4	48.9	49.2
5	1M	3	PANEL 1B	225	37.5	39.8	38.4
6	1M	3	PANEL 1A1	225	46.3	49.8	48.7
7	1M	3	PANEL P	225	39.1	46.3	40.8
9	1M2	3	PANEL K	225	45.2	49.3	48.6
10	1M2	3	PANEL F	225	39.7	42.1	40.4
11	1M2	3	PANEL N	400	81.5	78.4	79.3
12	1M2	3	PANEL A	225	45.2	44.6	49.7
13	PANEL BCB	3	PANEL BCB	225	40.9	42.0	40.4
14	PANEL NH1M	3	NHCU MCC	400	78.9	82.5	81.3
15	PANEL NH1M	3	PANEL M	225	40.5	42.2	43.1

TELE: (678) 546-9393 FAX (770) 518-9215

BREAKER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

BREAKER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

BREAKER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA
EQUIPMENT DESIGNATION: BUILDING 1: 6TH FLOOR
TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE: (678) 546-9393 FAX: (770) 271-1278

LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 2 MDP, VAMC, SPOKANE, WA

BREAKER ID: PANEL 1P

MANUFACTURER: GE

MODEL/TYPE: TJH

SERIAL NUMBER: N/A

FRAME SIZE: 600 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /600 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.14	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	600	600	600	
LONG TIME AMPERES	1800	1800	1800	-----
L/T TRIP TIME	82.5	84.9	82.7	-----
S/T AMPS	3600	3600	3600	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	6000	6000	6000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 2 MDP, VAMC, SPOKANE, WA

BREAKER ID: PANEL 4L/3L

MANUFACTURER: GE

MODEL/TYPE: TJH

SERIAL NUMBER: N/A

FRAME SIZE: 400 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /150 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.15	.15	.15	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	150	150	150	
LONG TIME AMPERES	450	450	450	-----
L/T TRIP TIME	38.1	39.5	38.3	-----
S/T AMPS	900	900	900	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	1500	1500	1500	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 2 MDP, VAMC, SPOKANE, WA

BREAKER ID: PANEL 4P

MANUFACTURER: GE

MODEL/TYPE: TJH

SERIAL NUMBER: N/A

FRAME SIZE: 400 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.12	.12	.14	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	89.4	87.3	85.2	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	4000	4000	4000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 2 MDP, VAMC, SPOKANE, WA

BREAKER ID: PANEL 8A

MANUFACTURER: GE

MODEL/TYPE: TJH

SERIAL NUMBER: N/A

FRAME SIZE: 400 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /400 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.14	.13	.13	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	400	400	400	
LONG TIME AMPERES	1200	1200	1200	-----
L/T TRIP TIME	71.8	73.9	70.4	-----
S/T AMPS	2400	2400	2400	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	4000	4000	4000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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LOW VOLTAGE CIRCUIT BREAKER TEST RECORD

BREAKER LOCATION: BLDG 2 MDP, VAMC, SPOKANE, WA

BREAKER ID: PANEL ATS

MANUFACTURER: GE

MODEL/TYPE: TKH

SERIAL NUMBER: N/A

FRAME SIZE: 800 AMPS

TRIP DEVICE TYPE/SENSOR RATING: RMS-9 /800 A

TEST ENGINEER/TEST DATE: JERRY PARKS/12-12-09

AS FOUND DATA	<u>LONG TIME DELAY</u>	<u>SHORT TIME DELAY</u>	INSTANTANEOUS	<u>GND DELAY</u>
TRIP UNIT RANGE	<u>.5-1.0</u> 1-4	<u>2-10</u> .2-.5	2-12	<u>N/A</u> N/A
TRIP UNIT SETTINGS	<u>1.0</u> 2	<u>6</u> .2	9	<u>N/A</u> N/A
INSULATION TEST: PHASE TO PHASE	2000	2000	2000	-----
PHASE TO GROUND	2000	2000	2000	-----
CONTACT MICRO-OHM	.11	.11	.11	-----
TEST DATA	-----	-----	-----	-----
PICK-UP AMPERES	800	800	800	
LONG TIME AMPERES	2400	2400	2400	-----
L/T TRIP TIME	86.1	85.5	86.4	-----
S/T AMPS	4800	4800	4800	-----
S/T TRIP TIME	.2	.2	.2	-----
INSTANT AMPS	8000	8000	8000	-----
GROUND FAULT AMPS	N/A	N/A	N/A	N/A
G/F TRIP TIME	N/A	N/A	N/A	N/A

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TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

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TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-11-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

BREAKER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

TELE: (678) 546-9393 FAX (770) 518-9215

TEST ENGINEER/TEST DATE: JMP/12-14-09

[illegible]

8

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 1

TEST DATE	NURSING HOME TRANSFORMER TO MDP	EYE/DENTAL TRANSFORMER TO 30/33 DISC SWITCHES	BLDG 32 TRANSFORMER TO BLDG 32 JUNCTION BOX		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 2

TEST DATE	CHILLER PLANT TRANSFORMER CHILLER PLANT MCC	BLDG 2 TRANSFORMER TO BLDG 2 MDP	BLDG 5,6,7 TRANSFORMER TO BLDGS 4, 5, 6, 6A, 7		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 3

TEST DATE	BUILDING 19 TRANSFORMER TO SWITCHBOARDS A/B	BLDG 14 TRANSFORMER TO BLDG 14 PANELS P AND 14	BLDG 27 TRANSFORMER TO BUILDING 27 MDP		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 4

TEST DATE	SWBD A TO LIFE SAFETY BRANCH	SWBD A TO CRITICAL BRANCH	SWBD A TO EQUIPMENT BRANCH		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 5

TEST DATE	SWBD A TO PANEL 1M	SWBD A TO PANEL F	SWBD A TO PANEL M		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 6

TEST DATE	SWBD A TO PANEL N	SWBD A TO CATSCAN		
A-G 1 MIN	2000	2000		
A-G 10 MIN	2000	2000		
B-G 1 MIN	2000	2000		
B-G 10 MIN	2000	2000		
C-G 1 MIN	2000	2000		
C-G 10 MIN	2000	2000		
A-B 1 MIN	2000	2000		
A-B 10 MIN	2000	2000		
A-C 1 MIN	2000	2000		
A-C 10 MIN	2000	2000		
B-C 1 MIN	2000	2000		
B-C 10 MIN	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 6

TEST DATE	SWBD B TO PANEL 1B1	SWBD B TO PANEL 1D1	SWBD B TO PANEL 2M		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 8

TEST DATE	SWBD B TO PANEL 2M1	SWBD B TO PANEL 3M1	SWBD B TO PANEL 5M		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 9

TEST DATE	SWBD B TO PANEL 5M1	SWBD B TO PANEL 7M	SWBD B TO PANEL 7M1		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 10

TEST DATE	SWBD B TO PANEL 8U	SWBD B TO PANEL AC- 1/AC-2	SWBD B TO PANEL C1		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

LOW VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 11

TEST DATE	SWBD B TO PANEL X-RAY	SWBD B TO PANEL MB1	SWBD B TO PANEL PT BLDG		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 500 VDC PHASE TO GND; 1000 VDC PHASE TO PHASE

MEDIUM VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 12

TEST DATE	SWBD B TO PANEL X-RAY	SWBD B TO PANEL MB1	SWBD B TO PANEL PT BLDG		
A-G 1 MIN	2000	2000	2000		
A-G 10 MIN	2000	2000	2000		
B-G 1 MIN	2000	2000	2000		
B-G 10 MIN	2000	2000	2000		
C-G 1 MIN	2000	2000	2000		
C-G 10 MIN	2000	2000	2000		
A-B 1 MIN	2000	2000	2000		
A-B 10 MIN	2000	2000	2000		
A-C 1 MIN	2000	2000	2000		
A-C 10 MIN	2000	2000	2000		
B-C 1 MIN	2000	2000	2000		
B-C 10 MIN	2000	2000	2000		

SDV SERVICES INC

INSULATION RESISTANCE TEST: MEASUREMENT IN MEGA-OHMS

TEST VOLTAGES: 5000 VDC PHASE TO GND; 10000 VDC PHASE TO PHASE

MEDIUM VOLTAGE CABLES

VA MEDICAL CENTER, SPOKANE, WA DECEMBER 2009

PAGE 13

TEST DATE	RADIAL A TO TRANSFORMERS	RADIAL B TO TRANSFORMERS		
A-G 1 MIN	4000	4000		
A-G 10 MIN	4000	4000		
B-G 1 MIN	4000	4000		
B-G 10 MIN	4000	4000		
C-G 1 MIN	4000	4000		
C-G 10 MIN	4000	4000		
A-B 1 MIN	4000	4000		
A-B 10 MIN	4000	4000		
A-C 1 MIN	4000	4000		
A-C 10 MIN	4000	4000		
B-C 1 MIN	4000	4000		
B-C 10 MIN	4000	4000		

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SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE (678) 546-9393 FAX (770) 271-1278

TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER BUILDING 14

MANUFACTURER: MCGRAW EDISON

TYPE: OA

SERIAL NO: 88ZC671-001

KVA: 75

PRIMARY VOLTAGE: 13200

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 3.6%

GALLONS OF LIQUID: 273

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	30 DEGREES C	22 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D- 1524
.025	MINOR	.880	43.7	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
61.8 KV	.08	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER BUILDING 12 NURSING HOME

MANUFACTURER: SQUARE D

TYPE: OA

SERIAL NO: 19739249-001

KVA: 300

PRIMARY VOLTAGE: 13800

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 4.01%

GALLONS OF LIQUID: 167

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	25 DEGREES C	28 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D-1524
.014	MINOR	.880	47.4	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
52.2 KV	.13	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER BUILDING 32

MANUFACTURER: ABB

TYPE: OA

SERIAL NO: 04J154234

KVA: 112.5

PRIMARY VOLTAGE: 13200

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 1.98%

GALLONS OF LIQUID: 139

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	36 DEGREES C	24 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D- 1524
.011	MINOR	.887	48.4	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
64.8	.009	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE (678) 546-9393 FAX (770) 271-1278

TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER 19 BUILDING 1

MANUFACTURER: GENERAL ELECTRIC

TYPE: OA

SERIAL NO: P491203TVC

KVA: 1500/1680

PRIMARY VOLTAGE: 13800

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 5.7%

GALLONS OF LIQUID: 460

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	35 DEGREES C	28 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D- 1524
.022	MINOR	.874	48.2	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
60.0	.06	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER 26 BUILDING 27

MANUFACTURER: GENERAL ELECTRIC

TYPE: OA

SERIAL NO: Q525194-TVM

KVA: 300

PRIMARY VOLTAGE: 13800

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 5.42%

GALLONS OF LIQUID: 295

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	25 DEGREES C	27 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D-1524
.017	MINOR	.882	46.0	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
60.2	.064	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

TELE (678) 546-9393 FAX (770) 271-1278

TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER 18 BOILER PLANT

MANUFACTURER: GENERAL ELECTRIC

TYPE: OA

SERIAL NO: P189847TWC

KVA: 300

PRIMARY VOLTAGE: 13800

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 5.62%

GALLONS OF LIQUID: 285

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	35 DEGREES C	24 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D-1524
.02	MINOR	.878	41.3	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
43.1	.082	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER BUILDING 30

MANUFACTURER: ABB

TYPE: OA

SERIAL NO: 04J183246

KVA: 112.5

PRIMARY VOLTAGE: 13200

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 4.66%

GALLONS OF LIQUID: 143

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	23 DEGREES C	31 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D-1524
.011	MINOR	.889	49.5	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
57.8	.093	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER BUILDINGS 5, 6, 7

MANUFACTURER: GENERAL ELECTRIC

TYPE: OA

SERIAL NO:

KVA: 225

PRIMARY VOLTAGE: 13200

SECONDARY VOLTAGE: 120/208

IMPEDANCE: 4.34%

GALLONS OF LIQUID: 175

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	26 DEGREES C	27 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D-1524
.014	MINOR	.871	44.8	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
55,8 KV	.078	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
845 LONG BRANCH CIRCLE
SUGAR HILL, GA 30518

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TRANSFORMER TEST RECORD

TRANSFORMER LOCATION: DVA MEDICAL CENTER, SPOKANE, WA

TRANSFORMER ID: TRANSFORMER 24 CHILLER PLANT

MANUFACTURER:

TYPE: OA

SERIAL NO:

KVA: 750

PRIMARY VOLTAGE: 13200

SECONDARY VOLTAGE: 277/480

IMPEDANCE: 5.6%

GALLONS OF LIQUID: 335

FAN COOLED: NO

GAUGES: PRESSURE: NO

OIL LEVEL: YES

OIL TEMPERATURE: YES

SAMPLING VALVE: YES

PRESSURE RELIEF VALVE: YES

LIQUID TYPE	LIQUID SAMPLING TEMPERATURE	AMBIENT TEMPERATURE	SAMPLING-TOP OR BOTTOM	OIL LEVELS
MINERAL OIL	35 DEGREES C	23 DEGREES F	BOTTOM	GOOD
ACIDITY ASTM D-974	PROBABILITY OF SLUDGE HAVING FORMED	SPECIFIC GRAVITY	INTERFACIAL TENSION ASTM D-2285	COLOR ASTM D- 1524
.025	MINOR	.880	43.7	1
VISUAL CONDITION ASTM D-1524	CLARITY	SEDIMENT	VISIBLE WATER	DEBRIS
-----	GOOD	NONE	NONE	NONE
DIELECTRIC TEST ASTM D877 (AVERAGE)	POWER FACTOR TEST RESULTS	PRESSURE RELIEF VALVE- TESTED	TANK PRESSURIZE OR VACUUM	GAUGES RESET
61.8 KV	.037	N/A	N/A	YES
INSULATION RESISTANCE MEGA-OHMS	HIGH TO LOW: 2000	HIGH TO GROUND: 2000	LOW TO GROUND: N/A	

SDV SERVICES INC
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 SUGAR HILL, GA 30518
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TRANSFORMER DRY TYPE LOW VOLTAGE 30 KVA AND ABOVE			
LOCATION: VAMC SPOKANE, WA			
TRANSFORMER NO. X-RAY A		LOCATION IN BLDG: RM B010	
TYPE: DRY		KVA: 300	
SN: N/A		IMPEDENCE: 4.7	
VOLTAGES: 208		CONNECTIONS:	
VOLTS-SECONDARY: 480		A: 484	B: 484 C: 484
TEST ENGINEER: JERRY PARKS		DATE: 12-12-09	
TEST LIST	TEST PERFORMED	NOT APPLICABLE	COMMENTS
INSULATION RESISTANCE TEST	YES		HI-LO: 2000 HI-GND: 2000
URNS RATIO TEST	YES		WITHIN TOLERANCE
OVERPOTENTIAL TEST	YES		LESS THAN 20 MA
POWER FACTOR TEST	YES		LESS THAN 1.0
WINDING RESISTANCE TEST	YES		WITHIN TOLERANCE
FAN TEST	N/A		
SECONDARY VOLTAGES	YES		
OTHER: TAP RANGE: A-E TAP SET: C			

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TRANSFORMER DRY TYPE LOW VOLTAGE 30 KVA AND ABOVE			
LOCATION: VAMC SPOKANE, WA			
TRANSFORMER NO. X-RAY B		LOCATION IN BLDG: RM B010	
TYPE: DRY		KVA: 150	
SN: N/A		IMPEDENCE: 4.2	
VOLTAGES: 208		CONNECTIONS:	
VOLTS-SECONDARY: 480		A: 481	B: 481 C: 481
TEST ENGINEER: JERRY PARKS		DATE: 12-12-09	
TEST LIST	TEST PERFORMED	NOT APPLICABLE	COMMENTS
INSULATION RESISTANCE TEST	YES		HI-LO: 2000 HI-GND: 2000
URNS RATIO TEST	YES		WITHIN TOLERANCE
OVERPOTENTIAL TEST	YES		LESS THAN 20 MA
POWER FACTOR TEST	YES		LESS THAN 1.0
WINDING RESISTANCE TEST	YES		WITHIN TOLERANCE
FAN TEST	N/A		
SECONDARY VOLTAGES	YES		
OTHER: TAP RANGE: A-E TAP SET: C			

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TRANSFORMER DRY TYPE LOW VOLTAGE 30 KVA AND ABOVE			
LOCATION: VAMC SPOKANE, WA			
TRANSFORMER NO. CATSCAN		LOCATION IN BLDG: RM B010	
TYPE: DRY		KVA: 150	
SN: N/A		IMPEDENCE: 43.9	
VOLTAGES: 208		CONNECTIONS:	
VOLTS-SECONDARY: 480		A: 481	B: 481 C: 481
TEST ENGINEER: JERRY PARKS		DATE: 12-12-09	
TEST LIST	TEST PERFORMED	NOT APPLICABLE	COMMENTS
INSULATION RESISTANCE TEST	YES		HI-LO: 2000 HI-GND: 2000
TURNS RATIO TEST	YES		WITHIN TOLERANCE
OVERPOTENTIAL TEST	YES		LESS THAN 20 MA
POWER FACTOR TEST	YES		LESS THAN 1.0
WINDING RESISTANCE TEST	YES		WITHIN TOLERANCE
FAN TEST	N/A		
SECONDARY VOLTAGES	YES		
OTHER: TAP RANGE: A-E TAP SET: C			

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TRANSFORMER DRY TYPE LOW VOLTAGE 30 KVA AND ABOVE			
LOCATION: VAMC SPOKANE, WA			
TRANSFORMER NO. C202A		LOCATION IN BLDG: RM C202A	
TYPE: DRY		KVA: 150	
SN: N/A		IMPEDENCE: 4.3	
VOLTAGES: 208		CONNECTIONS:	
VOLTS-SECONDARY: 480		A: 481	B: 481 C: 481
TEST ENGINEER: JERRY PARKS		DATE: 12-12-09	
TEST LIST	TEST PERFORMED	NOT APPLICABLE	COMMENTS
INSULATION RESISTANCE TEST	YES		HI-LO: 2000 HI-GND: 2000
URNS RATIO TEST	YES		WITHIN TOLERANCE
OVERPOTENTIAL TEST	YES		LESS THAN 20 MA
POWER FACTOR TEST	YES		LESS THAN 1.0
WINDING RESISTANCE TEST	YES		WITHIN TOLERANCE
FAN TEST	N/A		
SECONDARY VOLTAGES	YES		
OTHER: TAP RANGE: A-E TAP SET: C			