

CA-20 (b) Attachment F

Inspection and Testing of Substation Concrete Pads And Foundations

Prepared for:

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SGE Project #: C022319.01

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TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	INSPECTION PROCEDURE	
3.0	INSPECTION RESULTS	2
4.0	RECOMMENDATIONS	8
	LIST OF TABLES	
TABL	LE 1 – LOCATION OF PRIORITY 1 FDN/PAD REPAIRS	1

APPENDICES

Appendix A – Inspection Summaries

LIST OF SITES

ST. JOHN'S AREA

BAY BULLS BIG POND

BROAD COVE

CAPE BROYLE

CHAMBERLAINS

FERMEUSE

GLENDALE

GOULDS

HARDWOODS (UPPER SITE)

HARDWOODS (LOWER SITE)

HORSECHOPS

KELLIGREWS

KENMOUNT

KING'S BRIDGE

MEMORIAL

MOBILE

MOLLY'S LANE

OXEN POND

PEPPERELL

PETTY HARBOUR

PIERRE'S BROOK

PULPIT ROCK

RIDGE ROAD

ROCKY POND

SEAL COVE (UPPER SITE)

SEAL COVE (LOWER SITE)

ST. JOHN'S MAIN

STAMP'S LANE

TOPSAIL

TORS COVE

VIRGINIA WATERS

WEST AVALON

ARGENTIA

BAY ROBERTS

BLAKETOWN

CARBONEAR

WEST AVALON (Cont'd)

CLARKE'S POND COLLIER'S DUNVILLE HARBOUR GRACE **HEART'S CONTENT** HOLYROOD **ISLINGTON NEW CHELSEA NEW HARBOUR OLD PERLICAN** PITTMAN'S POND **RIVERHEAD SPRINGFIELD** TREPASSEY UPPER ISLAND COVE **VICTORIA** WESTERN AVALON

BURIN – BONAVISTA – CENTRAL

GANDER AREA CLARENVILLE AREA BURIN PENNISULA

GANDER AREA

BOYD'S COVE COBBS POND GAMBO GANDER GANDER BAY GLENWOOD GLOVERTOWN GREENSPOND HARE BAY MUSGRAVE HARBOUR ROYCEFIELD **SUMMERFORD TERRA NOVA** TRINITY **TWILLINGATE** WESLEYVILLE

BURIN - BONAVISTA - CENTRAL (Cont'd)

CLARENVILLE AREA

BONAVISTA
CATALINA
CLARENVILLE
LETHBRIDGE
LOCKSTON
MILTON
NORTHWEST BROOK
PORT BLANDFORD
PORT UNION
SUMMERVILLE
SUNNYSIDE

BURIN PENNISULA

BAY L'ARGENT
GARNISH
GRAND BEACH
GREEN HILL
LAURENTIAN
LINTON LAKE
MARYSTOWN
MONKSTOWN
SALT POND SPO SUBSTATION
SALT POND TURBINE YARD
WEST BROOK

WEST COAST

GRAND FALLS AREA DEER LAKE AREA STEPHENVILLE AREA

GRAND FALLS AREA

BISHOP'S FALLS
BOTWOOD
BUCHAN'S TERMINAL STATION
GRAND FALLS
INDIAN RIVER
LEWISPORTE
NEW GRAND FALLS
NOTRE DAME JUNCTION
RATTLING BROOK
SPRINGDALE

DEER LAKE AREA

BAYVIEW
DEER LAKE
FRENCHMAN'S COVE
GILLIAM'S
HUMBER
MARBLE MOUNTAIN
MASSEY DRIVE
PASADENA
SEAL COVE ROAD
WALBOURNE'S

STEPHENVILLE AREA

ABRAHAM'S COVE
BERRY HEAD
SANDY BROOK
DOYLE'S
GALLANT STREET
GRAND BAY
HARMON
LONG LAKE
LOOKOUT BROOK
PORT AUX BASQUES
ROBINSON'S

WEST COAST (Cont'd)

ROSE BLANCHE BROOK ST. GEORGE'S BROOK STEPHENVILLE CROSSING STEPHENVILLE GAS TURBINE WHEELER'S

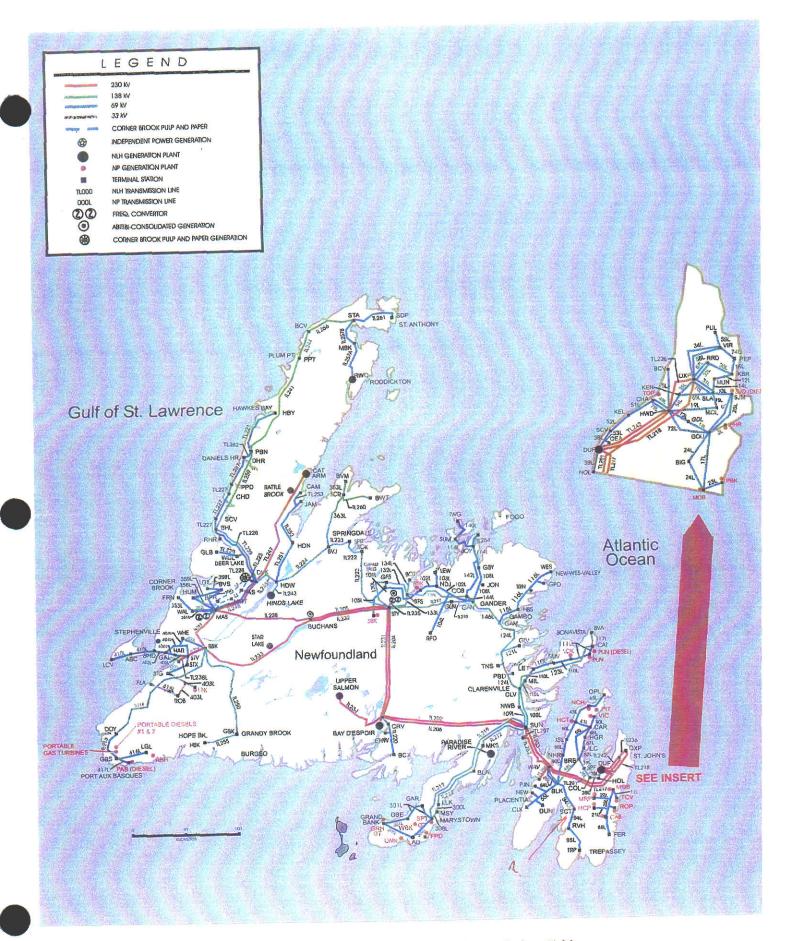


Figure 1.0 Island Generation and Transmission Grid

1.0 INTRODUCTION

In April of 2002, The SGE Group Inc. was contracted by Newfoundland Power to carry out inspections on concrete pads and foundations at 132 electrical substation sites across Newfoundland.

The purpose of this project, as outlined by Newfoundland Power representatives during an April 1, 2002 pre-job meeting, was to identify the existing conditions of all the concrete foundations and pads and to provide Newfoundland Power with prioritized methods of repair or maintenance for these. This information will then be used by Newfoundland Power to establish an on-going cost effective program of repair and maintenance.

2.0 INSPECTION PROCEDURE

Site inspections at the various substation sites were started April 5, 2002 and concluded on May 13, 2002. Prior to these inspections, a review of the drawings for the approximately twenty-one (21) different types of foundations and pads was carried out.

During the inspections, a detailed visual examination of each pad/foundation was made with detailed field notes and photos taken. Non-destructive testing on the concrete was carried out with the use of a Schmidt rebound hammer and performed according to ASTM Standard C805-85. This instrument is a surface hardness tester that provides a quick and efficient means of checking concrete uniformity and gives a good indication of the compressive strength of the concrete and the relative strength of comparable concrete members.

There were no concrete core samples taken for compressive strength tests during the inspections. These samples would only be taken if there was evidence of concrete deterioration that was caused by poor quality mix design which resulted in low strength concrete. All of the concrete deterioration noted during the inspections did not indicate this, and the strength indicated with the impact hammer tests were all above the specified amount of 20 MPa.

The vast majority of concrete damage and deterioration noted was above ground surface level or appeared to extend only marginally below this level. It was very difficult to remove much soil around the pad/foundations because of wiring and grounding mats. A hand shovel was used to observe the extent of any deterioration below ground surface level. There are several pad/foundations that had extensive cracking, and the exact depth into the concrete will have to be determined during the recommended repair procedure. These situations have been noted on the field inspection reports (attached Appendix A).

3.0 INSPECTION RESULTS

Inspection forms were developed for this project to record the general condition of each pad/foundation, as well as repair recommendations for any deficiencies noted (see attached Appendix A). There is also a priority rating system used to evaluate any corrective actions required for individual pads/foundations.

3.1 Priority Rating System

The project priority system consists of four (4) ratings and three (3) recommended time frames to carry out corrective actions. The priority descriptions are as follows:

Priority Rating	<u>Description</u>
1	This rating indicates a condition that already exists and could cause an operational problem or pose a threat to health and safety if left uncorrected. The recommended time frame for corrective action is within 1 year.
2	This indicates a condition that, if left uncorrected, may eventually hamper operational efficiency and will result in increasing costs to repair. The recommended time frame for corrective action is within 3 years.
3	This rating indicated a condition that does not affect the integrity of the structure or site operations. It is a general maintenance item that should be addressed when funding is available; however, it has the potential to develop into a more costly repair item in the future. The recommended time frame for corrective action is within 5 years.
4	This indicated a structure that is in good condition and requires no corrective action or maintenance at the present time.

3.2 Condition Assessment

The assessment of the concrete foundations and pads included an analysis of the current condition of the structures, including both visible and latent deterioration with the objective being to treat the causes as well as the symptoms. In most cases, the underlying causes of excessive or undue deterioration can be traced to one of the following:

- .1 Physical damage such as freeze-thaw action, cracking due to thermal movement or shrinkage cracking.
- .2 Mechanical damage such as impact or abrasion;
- .3 Chemical damage such as carbonation, sulphate attack and alkali-aggregate reactions.

The concrete damage and deterioration observed throughout this inspection process has been categorized into five general conditions. These conditions, as described below, embody all of the concrete deficiencies observed with the only variance being in the severity of the deterioration or damage. This severity is reflected in the priority rating for corrective actions as noted on the inspection reports.

3.2.1 Concrete Condition 'A'

This is probably the most common deficiency condition observed in the concrete foundations and pads. It is characterized by spalling, chipping or scaling of concrete surfaces and exposure of aggregate on surface due to disintegrated sand cement matrix.

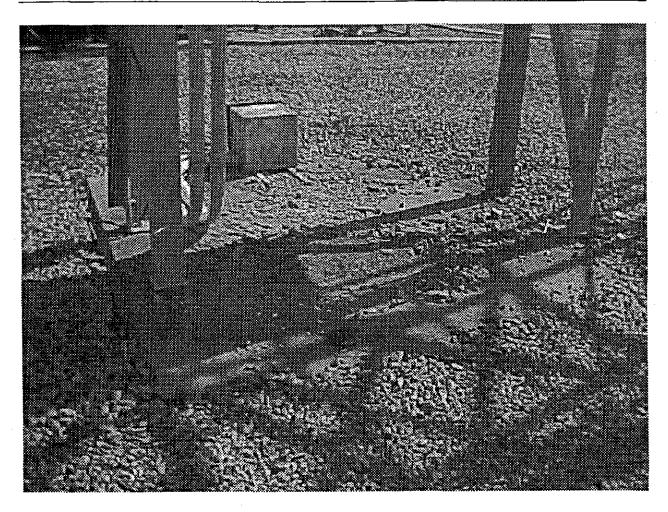


Figure 1.1 – Typical surface scaling of foundation.

3.2.2 Concrete Condition 'B'

Condition 'B' includes all forms of cracks such as hairline and alligator (map) where the width across the crack is less than 1 mm at the widest opening. This condition was most prevalent on the top surface of the pads and foundations and on the sides down to ground surface level.

The alligator or map cracking observed at several sites had a white gel on the surface along the line of the cracks. This condition usually indicates an adverse reaction between the alkalis in the cement and some of the aggregates used in the mix.

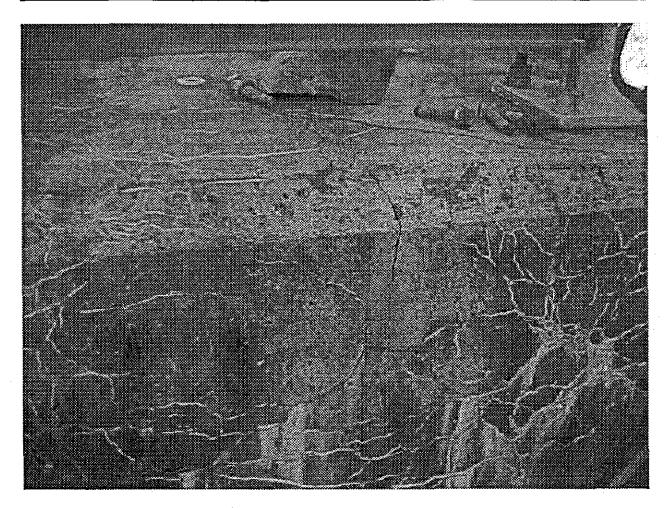


Figure 1.2 – Severe alligator or map cracking with evidence of alkali-aggregate reaction.

3.2.3 Concrete Condition 'C'

This condition is similar to Condition 'B', however, it is typical of cracking where the crack width is larger than 1 mm across. This condition was evident mostly in the high and low voltage structure foundations which typically had what appears to be shrinkage cracking that extends from the middle of the top surface of the foundation out to the four sides. There were very few cases where this type of cracking was observed in the concrete pads.

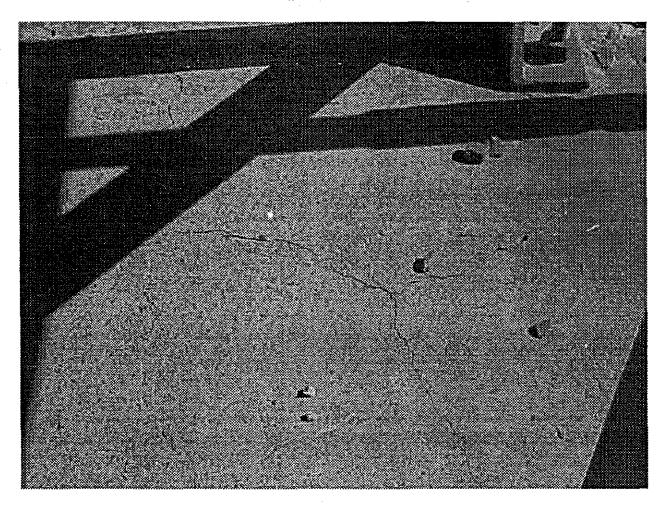


Figure 1.3 - Typical cracking for Concrete Condition 'C'.

3.2.4 Concrete Condition 'D'

Condition 'D' is indicative of a concrete foundation or pad that has the above grade concrete in a state of disrepair with numerous cracks, extensive scaling and overall deterioration. Many of the foundations/pads in this condition had extensive deterioration of concrete along the top edges and some of the structure supports founding on the concrete are starting to be undermined.

3.2.5 Concrete Condition 'E'

This condition is similar to Condition 'D', however, with more extensive deterioration or deterioration that extends well below ground surface level. A foundation/pad was put in this category because the cost to repair to an acceptable level compared to total replacement of the foundation or pad would not be cost-effective.

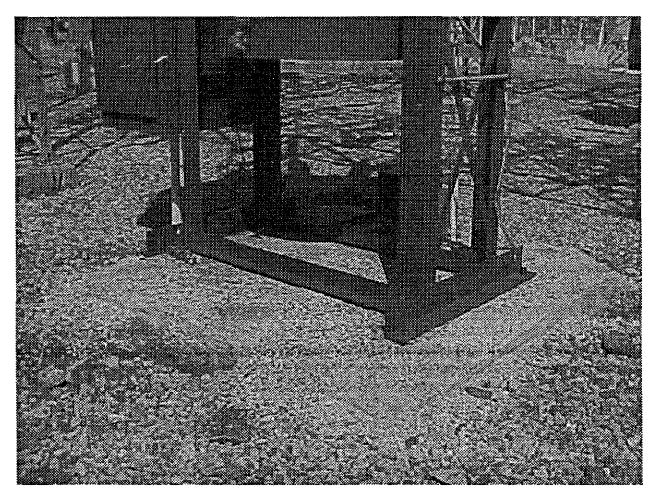


Figure 1.4 - A typical concrete pad that would be a Condition 'E'.

4.0 **RECOMMENDATIONS**

General deterioration in one form or another will occur over time in virtually all concrete. To ensure its long-term integrity, a proper maintenance and repair program is required with periodic inspections and assessments. This program should be developed considering financial constraints, future requirements of the structures and short, medium and long-term options to enable the most cost-effective remedial actions.

The conditions encountered during this inspection program have been identified in one of five categories previously described in Section 3.2. Corresponding recommended types of repairs are outlined below and have been noted on the inspection reports for each foundation or pad requiring corrective action or maintenance.

- Type 'A' Repair This repair procedure is recommended for concrete with Condition 'A' type deficiencies. All surface loose delaminated concrete should be removed as well as all dirt, rust stains and other inhibiting materials. The area for patching should be a minimum 6 mm in depth and this area should be thoroughly cleaned by means of high pressure water blasting or other appropriate mechanical means. Proper preparation of the substrate and the use of an approved bonding agent will ensure a good bond between the patch and the existing concrete. The substrate should be washed with clean water and should be saturated surface dry (SSD) prior to the application of an approved mortar. If the repair requires several lifts then each lift would normally be applied as soon as the previous lift will support the new one. The maximum thickness per lift should be no greater than 38 mm. Adequate curing of the patched areas is important to avoid shrinkage cracking in the repaired area.
- Type 'B' Repair This repair procedure is recommended for concrete with Condition 'B' type deficiencies. Extensive hairline and alligator or map cracking throughout a structure is difficult to correct when the width of the cracks are small. A sealant coating is recommended as a preventative measure to avoid further deterioration that would be caused by moisture infiltration through the cracks. This sealant should be an approved epoxy coating, and if installed correctly, should extend the useful life of the concrete structure.

The concrete surface to be sealed must be clean and sound. This would normally be attained by hydro blasting (or other acceptable mechanical means) of the cracks and surface area surrounding the cracks. All laitance, rust stains and loose concrete to be removed and the surface of the concrete should be saturated surface dry during application of the approved sealer. These are the basic procedures used for application of epoxy coatings; however, it is very important that whatever product brand is selected, the manufacturers directions for application must be followed as closely as possible.

- Type 'C' Repair This repair procedure is recommended for concrete with Condition 'C' type deficiencies. It is recommended that all cracks greater than 1 mm in width be epoxy injected with an approved epoxy injection material and injection system. Prior to injection, the cracks should be thoroughly cleaned to remove dirt, laitance, grease, foreign particles and disintegrated material.
- Type 'D' Repair This repair procedure is recommended for concrete with Condition 'D' type deficiencies. It is recommended that the top of the foundation or pad be removed down to solid sound concrete and the surface cleaned of any loose material. Any reinforcing steel or anchor bolts that are exposed during this process should be inspected for damage or decay and then cleaned or replaced if necessary. An approved bonding agent should then be applied to the prepared surface immediately prior to the placement of the concrete overlay.

The concrete mix design for overlays would normally be designed specific for this application.

• Type 'E' Repair – This repair procedure is recommended for concrete with Condition 'E' type deficiencies. It is recommended that pads or foundations in this condition be removed completely and replaced with a new concrete structure. It is felt that the cost to repair these structures to an acceptable standard compared to total replacement would not be justified.

The concrete pads and foundations that have been designated as Priority No. 1 for corrective actions are listed in Table 1. Several of these have been given a Type 'D' or 'E' repair status. The extent of the deterioration for these structures could not be determined conclusively during the inspection; however, it will be quite evident during the first stages of the repair procedures, and it may be more cost effective to opt for a total foundation replacement.

4.1 Future Design Considerations

It is very evident from the inspection reports that the majority of deterioration and especially the concrete cracking appears in the larger foundations for the high and low voltage structures. After reviewing the design drawings as supplied by NF Power for these foundations, it was observed that there are no vertical or horizontal reinforcing except for 15 m ties at one-third points to tie together the anchor bolts. This does not meet present-day building code requirements for minimum temperature and shrinkage reinforcement. Therefore, cracking and possible spalling of the concrete would be expected after the concrete had been exposed to several freeze/thaw

cycles. We would recommend that temperature reinforcement be considered for any future foundations to help prevent serious cracking and spalling. It should be noted that the design drawings for most of the other pads indicated reinforcing steel at top and bottom and these pads did not exhibit such an extent of deterioration.

The substation at Salt Pond (SPT) has 2 pads that have been noted for replacement. These pads had severe cracking that appeared to be related to settlement problems. If these pads are to be replaced, then careful consideration should be given to the subgrade conditions on which the concrete will be founded.

4.2 Repair Contracting Considerations

The following is provided for consideration if Newfoundland Power is contracting any or all repair work for the substation concrete foundations and pads.

A contract should offer the owner quality assurance and therefore security or value. With concrete repair, the ultimate aim is to rectify a problem and not to perpetuate it, and perceived economies at this stage could carry heavy penalties later. Contract specifications for concrete repair should include or address the following:

- The need for pre-construction survey of repair areas to clearly establish the extent of repairs with respect to payment quantities;
- Establish a protocol for the contractor or product manufacturer to certify all areas prepared for repair;
- Establish a proof-testing procedure for the Contractor to follow whereby any repair procedures are tested and accepted by the Client/Engineer prior to the beginning of repair work.
- Approved materials and equipment for repairs;
- Field quality control procedures accepted by the Owner/Engineer prior to the beginning of repair work.

TABLE 1 - LOCATION OF NO 1 PRIORITY FDN/PAD REPAIRS

SUBSTATION	SUBSTATION	SGE	NF POWER FDN/PAD	TYPE OF
AREA	SITE	FDN/PAD#	IDENTIFICATION	REPAIR
St. John's & Area				
	Goulds	5	T1 Transformer	D or E
	Memorial	1	T2-D(A) High Voltage	С
		5	T2-D High Voltage	С
	Oxen Pond	13	34L-B Oil Breaker	E
	Ridge Road	3	RRD-32L-DL High Voltage	С
	Rocky Pond	1	T1 Transformer	see report
	Seal Cove (Upper)	1	High Voltage	A
	Stamps Lane	1	SLA-T1-A High Voltage	D or E
		3	SLA-14L-DL High Voltage	D or E
		5	SLA-31L-DL High Voltage	D or E
·		9	SLA-BTS-1 High Voltage	D or E
	Topsail	1	Low Voltage	. E
		2	Low Voltage	Е
West Avalon	Bay Roberts	2	High Voltage	D
		3	High Voltage	D
	·	4	High Voltage	D
	ļ ·	5	56L-DB High Voltage	D
	<u> </u>	7	56L-GS High Voltage	D
	<u> </u>	8	High Voltage	D
		10	57L-DB High Voltage	D
	Carbonear	13	Oil Breaker	E
	Clarks Pond	2	CLK-03-R Recloser	D
		4	Not in Use	D
		6	CLK-01-R Recloser	D
	•	11	Low Voltage	A
		13	T1-D Low Voltage	A
	-	16	T2-D Low Voltage	A
	Harbour Grace	5	200219 Transformer	E
	Holyrood	5	T1 Transformer	C
	Trepassey	2	TRP-01-R Recloser	D
	Tropassoy		Tra -or-recooser	J
Burin-Bonavista-	Cobbs Pond	15	High Voltage	D
Central	Gander	1	GAN-T1 High Voltage	D
	Canoci	2	High Voltage	D
	Clarenville	26	123L-PT Structure	E
	Lethbridge	20	LET-01-R-492 Recloser	E
	Milton	12	MIL-01-BP Low Voltage	A or D
	Laurentian	5	LAU-T1-D Low Voltage	D
	Linton	21	212-PT	E
	Salt Pond (SPT)	3	SPT-301L-B Oil Breaker	E E
	Sail Fully (SF1)	4	SPT-302L-B Oil Breaker	E E
		4	J SP 1-302L-D OII Breaker	<u> </u>

TABLE 1 - LOCATION OF NO 1 PRIORITY FDN/PAD REPAIRS

		<u> </u>		
SUBSTATION	SUBSTATION	SGE	NF POWER FDN/PAD	TYPE OF
AREA	SITE	FDN/PAD#	IDENTIFICATION	REPAIR
West Coast	Bayview	1	BVS-359L-DB High Voltage	С
		3	BVS-359L-DL High Voltage	С
		5	BVS-357-DL High Voltage	С
		7	BVS-358L-BP High Voltage	A & B or D
		8	BVS-T1-A High Voltage	С
	<u> </u>	14	BVS-01-DL Low Voltage	A & C
	Pasadena	1	PAS-01-BP Low Voltage	С
		4	PAS-02-BP Low Voltage	A & C
·		10	PAS-T1-A High Voltage	D
		13	PAS-TL1-BP-2 High Voltage	D
	Seal Cove Road	4	SCR-VR-BP Low Voltage	D
		6	Low Voltage	D
		11	Low Voltage	D
		12	High Voltage	D
		13	High Voltage	D or E
		15	High Voltage	D or E
		16	SCR-T1-HGS High Voltage	D or E
		17	High Voltage	D or E
·		19	SCR-T1-HGS High Voltage	D or E
		20	High Voltage	D or E
		23	High Voltage	A&B
		27	High Voltage	Α
	Walbournes	1	High Voltage	C
		3	WAL-352L-B Sul Hex Breaker	С
		7	WAL-353L-GS High Voltage	A&C
		8	WAL-BTS-1 High Voltage	С
		9	WAL-T1-A High Voltage	С
	Botwood	4	BOT-03-BP Low Voltage	С
		8	BOT-T1-DL Low Voltage	А
	Galant Street	1	Low Voltage	CorE
		4	GAL-01-BP Low Voltage	C or E
		7	GAL-T1-D Low Voltage	CorE

APPENDIX A

Inspection Summaries

ST. JOHN'S AREA

BAY BULLS BIG POND

BROAD COVE

CAPE BROYLE

CHAMBERLAINS

FERMEUSE

GLENDALE

GOULDS

HARDWOODS (UPPER SITE)

HARDWOODS (LOWER SITE)

HORSECHOPS

KELLIGREWS

KENMOUNT

KING'S BRIDGE

MEMORIAL

MOBILE

MOLLY'S LANE

OXEN POND

PEPPERELL

PETTY HARBOUR

PIERRE'S BROOK

PULPIT ROCK

RIDGE ROAD

ROCKY POND

SEAL COVE (UPPER SITE)

SEAL COVE (LOWER SITE)

ST. JOHN'S MAIN

STAMP'S LANE

TOPSAIL

TORS COVE

VIRGINIA WATERS





	<i> </i>		FOUNDATIONS
	AP AANADETE	DADE V	
INICOLL TILLING			FUNDINA HUMA
114.366		1 700 0	

SUBSTATION SITE:	Bay Bulls Big Pond	DATE INSPECTED
DODGIA HON CILL	Day Dano Dig i ona	

DATE INSPECTED: 11-Apr-0

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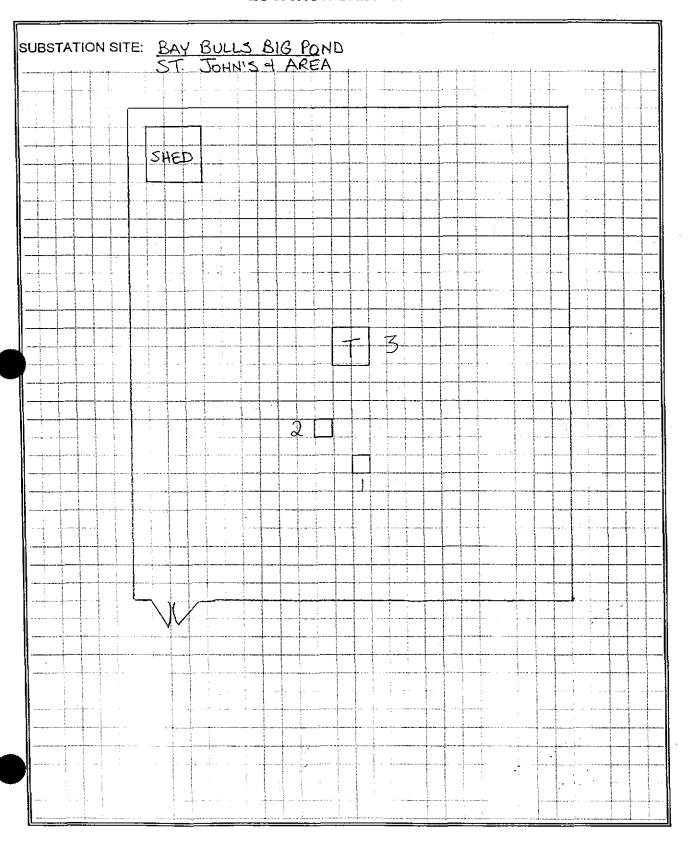
St. John's & Area			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - BIG-	Scaling on top surface of pad, and also two	Туре А Repair	3
#1-BIG- 01-R	areas are pitted on top surface. Remainder		
Recloser	of pad is in good condition (34 Mpa).		
100,000	o. pad io iii good o		
#2 - BIG-	Minor scaling on top surface, remainder	Future Monitoring	4
02-R	of pad is in good condition (22 Mpa).		
Recloser			
			4
#3 - T1	Spill pan installed on top of pad under		
Transformer	transformer. Visible portion of pad seems		
200195	to be in good condition (24 Mpa).	<u> </u>	
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
A	No corrective action or maintenance required at this time	•





INSPECTION OF CONCRETE PADS & FOUNDATIONS LOCATION SKETCH





C1	IDCT	- A T	SITE

Broad Cove

DATE INSPECTED: 10-Apr-02

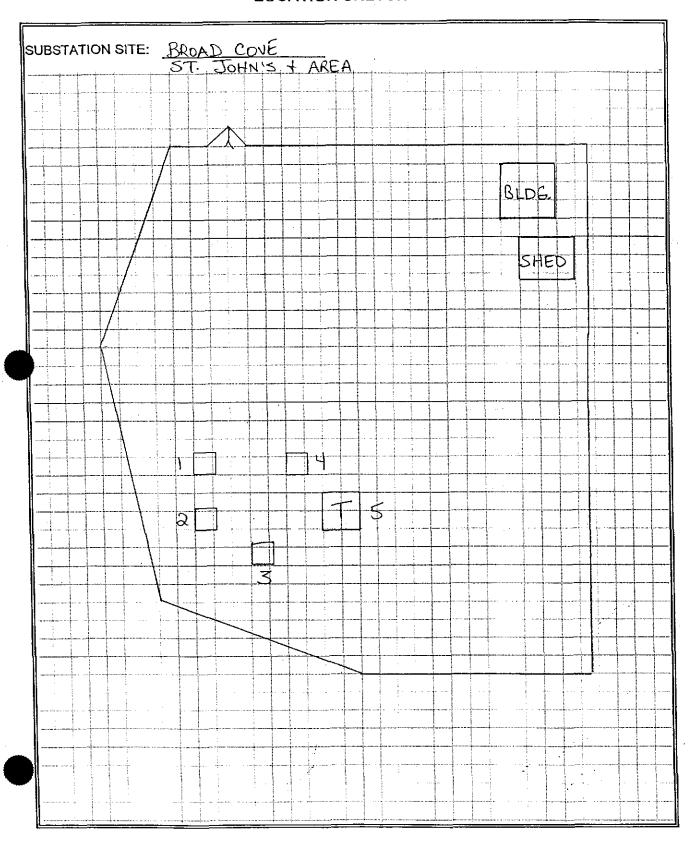
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Cond condition (42 MDs)		4
Recloser	Good condition (42 MPa).		
Reclosei			
#2 - BCV-	Good condition (35 Mpa).		4
03-R			
Recloser			
"A DC) /	0-1		4
#3 - BCV-	Good condition (31 Mpa).		4
01-R Recloser	***		
Reciosei		<u> </u>	
#4 - BCV-	Good condition (42 Mpa).		4
02-B			
Oil Circuit			
Breaker			
			4
#5 - T1	Good condition (34 Mpa).		- 4
Transformer			
200327			
			
			
J			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





INSPECTION OF CONCRETE PADS & FOUNDATIONS LOCATION SKETCH







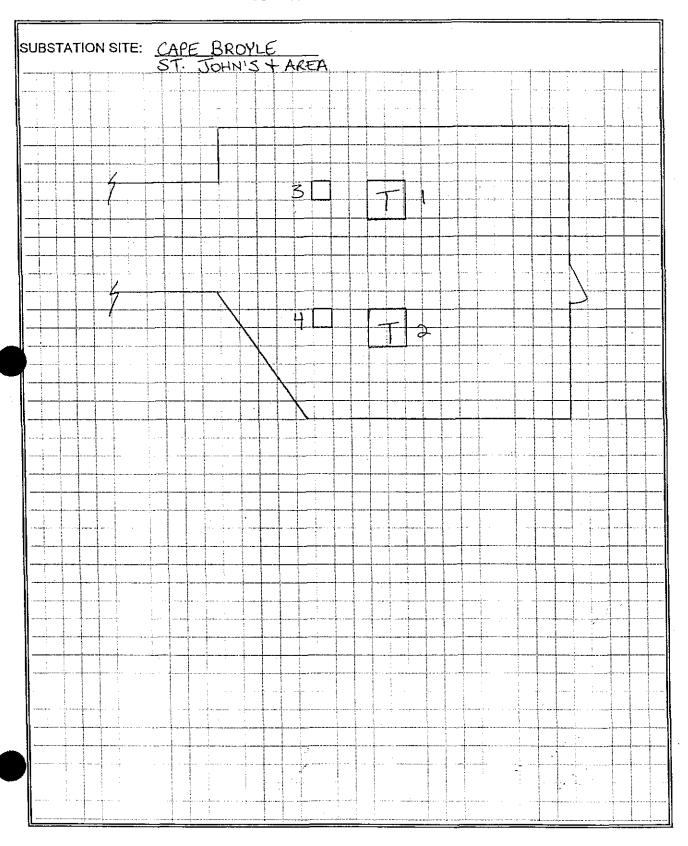
INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	St. John's & Area	DATE INSPECTED: 17-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
Transformer	Spill pan installed under transformer. Visible area of pad seems to be in good condition (42 Mpa).	Could not do complete concrete inspection	
#2 - T2 Transformer 200290	Spill pan installed under transformer. Visible area of pad seems to be in good condition (24 Mpa).	Could not do complete concrete inspection	
#3 - 66L-B Oil Circuit Breaker	Good condition (28 Mpa).		4
#4 - CAB- 01-R Recloser	Good condition (26 Mpa).		4
			,

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·





INSPECTION OF CONCRETE PADS & FOUNDATIONS LOCATION SKETCH







SUBSTATION SITE:

Chambedains

DATE INSPECTED: 15-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	To an and the second Grief and	Tuna A Banair	3
11 - T1-D	Top surface of pad has rough finish and	Type A Repair	`
	minor alligator cracking. Remiander of pad		
ow voltage	is in good condition (20 Mpa).		
‡2 - T1 - B	Top surface of pad has rough finish, small	Type A Repair	3
Sul Hex	amount of aggregate is exposed. Otherwise		
Breaker	pad is in fair condition (20 Mpa).		
	Top surface of pad had rough finish.		4
Sul Hex	Otherwise pad is in good condition		
reaker	(20 Mpa).		
#4 - CHA-	Good condition (26 Mpa).		4
01-DL			
Structure			
Low Voltage			
#5 - CHA-	Top surface of pad has rough finish.		4
02-B	Otherwise pad is in good condition		
Sul Hex	(26 Mpa).		
Breaker			
#6 - CHA-	One corner of pad is chipped (minor).	Type A Repair	3
02-DL	Remainder of pad is in good condition		
Structure	(28 Mpa).		
Low Voltage		 	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE: Chamberlains DATE INSPECTED: 15-Apr-02
St. John's & Area

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - T1	Good condition (22 Mpa).		4
Transformer			
200331			
	Top surface of pad has rough finish with	Type A Repair	3
Structure	areas where some aggregate is exposed.		
High Voltage	Remainder of pad is in good condition (30 Mpa).		
#9 - CHA-	Good condition (32 Mpa).		4
51L-B			
Circuit			
aker		Type A Repair	3
Structure	Top surface of pad has rough finish but has two small areas where there is some	Туре А Керап	
	pitting. Otherwise the pad is in good		
rigii voitage	condition (36 Mpa).		
#11 - 79L-B			4
Oil Circuit	Remainder of pad is in good condition		
Breaker	(31 Mpa).		
#12 -	Top surface of pad has rough finish with	Type A Repair	3
79L-DB	areas where some aggregate is exposed.		
Structure	Remainder of pad is in good condition		
High Voltage	e(26 Mpa).		
1			

<u>Priority Rating</u>	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Chamberlains	DATE INSPECTED:	15-Apr-02	
	St. John's & Area			

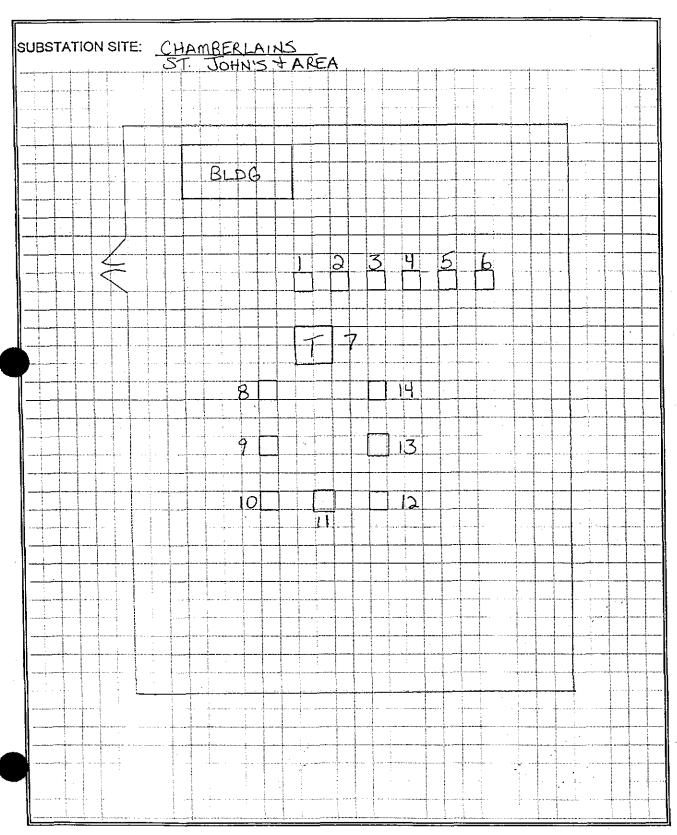
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - 49L-B	Minor scaling on top surface of pad. Remainder of pad is in good condition		4
Oil Circuit	Remainder of pad is in good condition		
Breaker	(28 Mpa).		
#14 -	Minor chipping on two corners of pad. Otherwise pad is in good condition	Type A Repair	3
49L-DB	Otherwise pad is in good condition		
Structure	(26 Mpa).		
High Voltage			
			
	 		
	 		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





INSPECTION OF CONCRETE PADS & FOUNDATIONS LOCATION SKETCH







	INSPE	ECTION OF CONCR	ETE PADS & FOUNDATIONS	
SUBSTATION	N SITE:	Fermeuse St. John's & Area	DATE INSPECTED: 17-Apr-02	
Fdn/Pad Type & No.		General Condition	Recommendations	Priority Rating
#1 - T1 Transformer 200093		dition (32 Mpa).		4
#2 - FER- 01-R Recloser	Good con	dition (32 Mpa).		4

Priority Rating	_ Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
. 3 .	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·





INSPECTION OF CONCRETE PADS & FOUNDATIONS LOCATION SKETCH

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Oil Circuit Breaker



	INSPECTION OF CONCRET	E PADS & FOUNDATIONS	
SUBSTATIO	N SITE: Glendale St. John's & Area	DATE INSPECTED: 12-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1-D Structure Low Voltage	Good condition (24 Mpa).		4
#2 - GDL- 01-BP Structure Low Voltage	Two minor chips on corners. Remainder of pad is in good condition (28 Mpa).	Type A Repair	3
#3 - T1-B Oil Circuit Breaker	Surface rust covered. Pad is in good condition (44 Mpa).		4
#4 - GDL- 01-B Oil Circuit Breaker	Surface is rust covered. Pad is in good condition (44 Mpa).		4
#5 - GDL- 03-B Oil Circuit Breaker	Good condition (44 Mpa).		4
#6 - GDL- 02-B	Good condition (42 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

POWER



	INSPECTION OF CONCRI	ETE PADS & FOUNDATIONS					
SUBSTATION SITE: Glendale DATE INSPECTED: 12-Apr-02 St. John's & Area							
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating				
#7 - T2-D Structure	Good condition (28 Mpa).		4				
Low Voltage							
#8 - GDL- 02-BP	Good condition (34 Mpa).		4				
Structure Low Voltage							
#9 - T2-B	Good condition (44 Mpa).		4				
l Hex eaker			-				
#10 - GDL-	Good condition (42 Mpa).		4				
04-B Oil Circuit			_				
Breaker							
#11 - GDL-	Good condition (42 Mpa).		4				
06-B							
Sul Hex							
Breaker			<u>.</u>				
#12 - GDL-	Good condition (42 Mpa).		4				
05-B							
Sul Hex							
Breaker			_				

iority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



Type & No. #13 - GDL- O6-BP Structure Low Voltage #14 - GDL- O5-BP Remainder of pad is in good condition Structure (34 Mpa). #15 - 73L- Good condition (44 Mpa).				
Fdn/Pad Type & No. General Condition Recommendations Priority Rating #13 - GDL - Good condition (28 Mpa). G-BP Structure Low Voltage #14 - GDL - 1 minor chip on one corner of top surface. 05-BP Remainder of pad is in good condition Structure Low Voltage #15 - 73L - Good condition (44 Mpa). #15 - 73L - Good condition (44 Mpa). #16 - T1-A Good condition (28 Mpa). #17 - 73L-B Good condition (28 Mpa). #17 - 73L-B Good condition (42 Mpa). #17 - 73L-B Good condition (42 Mpa). #18 - T1 Good condition (42 Mpa). #18 - T1 Good condition (42 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa).	SUBSTATIO		DATE INSPECTED: 12-Apr-02	
Type & No. Rating #13 - GDL- 06-BP Good condition (28 Mpa). 4 #14 - GDL- Low Voltage		St. John's & Area		
06-BP Structure Low Voltage #14 - GDL- 1 minor chip on one corner of top surface. 05-BP Remainder of pad is in good condition Structure (34 Mpa). Low Voltage #15 - 73L- Good condition (44 Mpa). 38 Structure High Voltage #16 - T1-A Good condition (28 Mpa). #17 - 73L-B Good condition (42 Mpa). #17 - 73L-B Good condition (42 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa).		General Condition	Recommendations	Priority Rating
Structure	#13 - GDL- 06-BP	Good condition (28 Mpa).		4
#15 - 73L- Good condition (44 Mpa). #16 - T1-A Structure High Voltage #17 - 73L-B Good condition (42 Mpa). #17 - 73L-B Good condition (42 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa). 4 Transformer	Structure Low Voltage			
#15 - 73L- Good condition (44 Mpa). #16 - T1-A Structure High Voltage #17 - 73L-B Good condition (42 Mpa). #17 - 73L-B Good condition (42 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa). 4 Transformer				
Structure (34 Mpa).	#14 - GDL-	1 minor chip on one corner of top surface.		4
Low Voltage #15 - 73L- Good condition (44 Mpa). 3S Structure High Voltage #16 - T1-A Good condition (28 Mpa). 4 Structure High Voltage #17 - 73L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). 4 Transformer	05-BP			
#15 - 73L- Good condition (44 Mpa). Structure High Voltage #16 - T1-A Good condition (28 Mpa). Structure High Voltage #17 - 73L-B Good condition (42 Mpa). #18 - T1 Good condition (32 Mpa). 4 Transformer	Structure			
#16 - T1-A Good condition (28 Mpa). #16 - T1-A Good condition (28 Mpa). #17 - 73L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). 4 Transformer	Low Voltage			
Structure High Voltage #16 - T1-A Good condition (28 Mpa). #17 - T3L-B Good condition (42 Mpa). #17 - T3L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). Transformer	#15 - 73L-	Good condition (44 Mpa).		4
Structure High Voltage #16 - T1-A Good condition (28 Mpa). Structure High Voltage #17 - 73L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). 4 Transformer				
High Voltage #16 - T1-A Good condition (28 Mpa). Structure High Voltage #17 - 73L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). 4 Transformer	Structure			
#17 - 73L-B Good condition (42 Mpa). #17 - 73L-B Good condition (42 Mpa). #18 - T1 Good condition (32 Mpa). #18 - T1 Good condition (32 Mpa). 4 Transformer				
Structure High Voltage #17 - 73L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). Transformer	N	Good condition (28 Mpa).		4
#17 - 73L-B Good condition (42 Mpa). Oil Circuit Breaker #18 - T1 Good condition (32 Mpa). Transformer	·			
#18 - T1 Good condition (32 Mpa). Transformer	High Voltage	9		
#18 - T1 Good condition (32 Mpa). 4	1	Good condition (42 Mpa).		4
Transformer				
Transformer				
Transformer	#18 - T1	Good condition (32 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



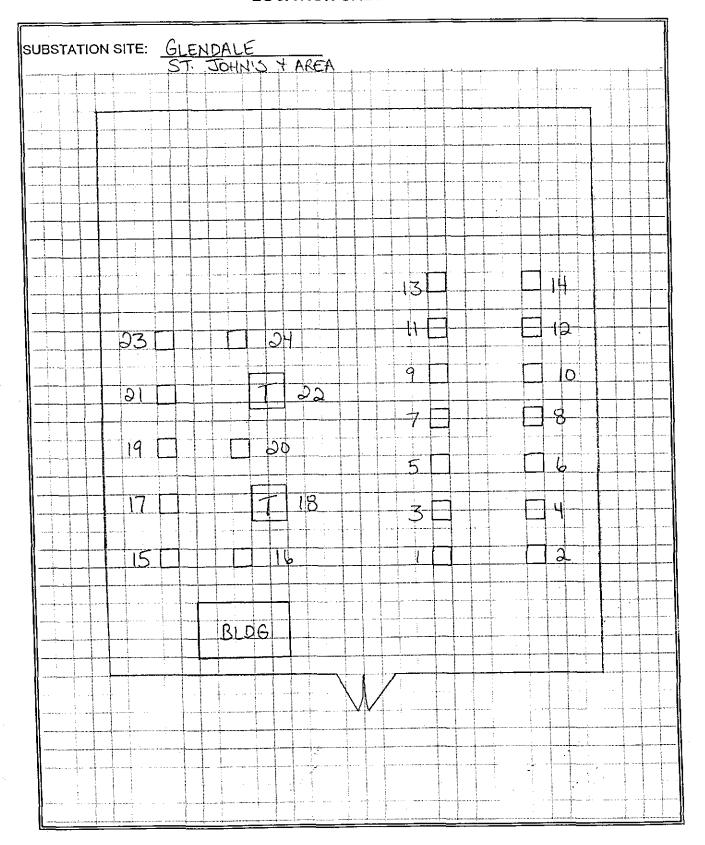


	INSPECTION OF CONCR	ETE PADS & FOUNDATIONS	
SUBSTATIO	N SITE: Glendale	DATE INSPECTED: 12-Apr-02	
	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - 73L-	Good condition (44 Mpa).		4
DL			
Structure			
High Voltage			
#20 - BTS-2	Good condition (24 Mpa).		4
Structure			
High Voltage			
#21 - 18L-B	Good condition (44 Mpa).		4
Oil Circuit			
Breaker			
#22 - T2	Good condition (24 Mpa).		4
Transformer			
200332			
#23 - 18L-	Good condition (24 Mpa).		4
DB			
Structure	·		
High Voltage	9		
#24 - T2-A	One corner has a small area chipped		4
Structure	Remainder of pad is in good condition	1	
High Voltage	e (24 Mpa).		
			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











INSP	ECTION OF CONCE	RETE PADS & FOUN	DATIONS
UBSTATION SITE:	Goulds	DATE INSPECTED:	12-Apr-02
	St. John's & Area		

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - 4L-B	Good condition (44 Mpa).		4
Sul Hex			_]
Breaker			
#2 - 18L-B	Minor scaling and one minor chip on top	Type A Repair	3
Sul Hex	surface of pad. Additional concrete has		_
Breaker 	been poured around perimeter of original pad. Overall pad is in good condition (28 Mpa).		- - - -
#3 - 25L-B	Additional concrete has been poured	Type A Repair	3
Structure	around perimeter of original pad. Scaling		
	on the top surface of the inner section.		
	Remainder of the pad is in good		_
	condition (28 Mpa).		
#4 - 3L-B	Good condition (30 Mpa).		4
Oil Circuit			_ <u>}</u>
Breaker			_
#5 - T1	Pad is in poor condition with severe	Type D Repair at a minimum with a	1
	cracking, chipping, and hairline cracks	Type E Repair recommended if the poor	
	throughout visible area of pad. Portions of	condition of the concrete extends beyond	7
	pad can be removed with boot (24 Mpa).	the outside areas that are visible at the	1
		present. This should be determined when	1
·		the equipment is removed for repairs.	7
#6 - 24L-B	Good condition (30 Mpa).		4
Sul Hex			
Breaker			
		79.00.000	4
			<u>-</u>
			<u> </u>

<u>Prio</u>	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
_	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



SUBSTATION		DATE INSPECTED: 12-Apr-02	
	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
‡7 - T2	Good condition (28 Mpa).		4
Fransformer	,		
200292			
		-	
	Good condition (44 Mpa).		4
Sul Hex			
Breaker	· · · · · · · · · · · · · · · · · · ·		
	· · · · · · · · · · · · · · · · · · ·		
#0 471 -	Good condition (29 Mars)		4
#9 - 17L-B	Good condition (38 Mpa).		-
Sul Hex Breaker			
Breaker			
#10 - T3-	Good condition (44 Mpa).		4
Transformer			
200257			
#11 -	Good condition (44 Mpa).		4
Structure			
Low Voltage			
1			
	<u> </u>		4
#12 - T2-B	Good condition (24 Mpa).		- + 4
Oil Circuit			
Breaker	1		1
DIEAKEI			
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION OF CON	CRETE PADS	& FOUNDATIONS

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Goulds

DATE INSPECTED: 12-Apr-02

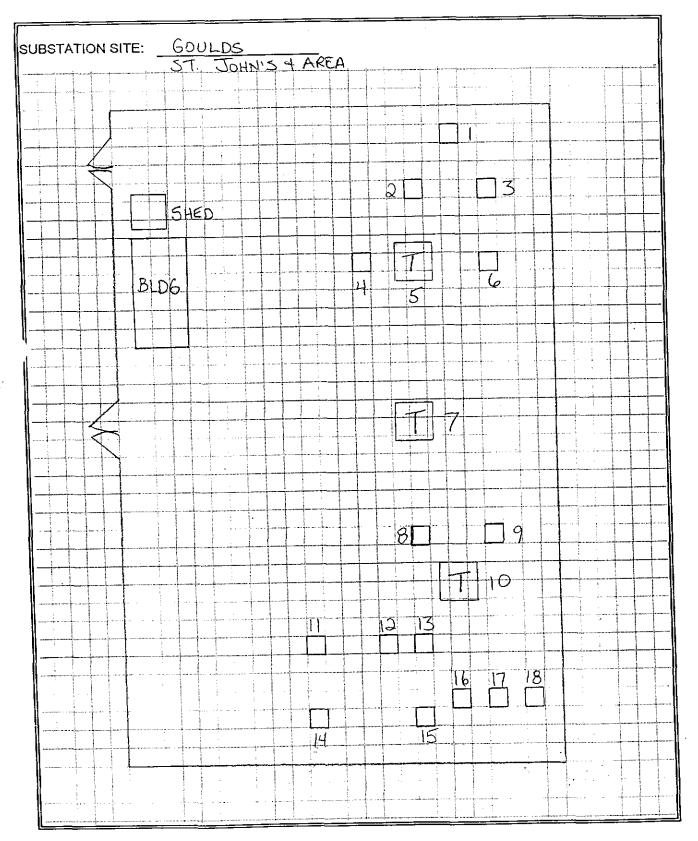
St	lohn	S&	Area	3

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - Structure	Good condition (32 Mpa).		4
Low Voltage			
#14 -	Good condition (42 Mpa).		4
Structure Low Voltage			
#15 -	Good condition (34 Mpa).		4
v Voltage			
#16 - GOU-	Good condition (22 Mpa).	11.70	4
01-R Recloser			
#17 - GOU-	Minor scaling on top surface of pad.	Type A Repair	3
02-R Recloser	Remainder of pad is in good condition (24 Mpa).		
#18 - GOU-	Minor scaling on top surface of pad.	Type A Repair	3
03-R Recloser	Remainder of pad is in good condition (34 Mpa).		

riority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE:	Hardwoods (Upper Section)	DATE INSPECTED:	13-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 -	Good condition (20 Mpa).		4
Structure			
Low Voltage			
#2 - HWD-	One comer on top of pad is chipped off	Type A Repair	3
02-BP	(minor). Remainder of pad is in good		_
Structure	condition (28 Mpa).		
Low Voltage			
	Slight scaling on top surface of pad.		4
il Circuit	Remainder of pad is in good condition		
aker	(42 Mpa).		
#4 - T2-B	Good condition (42 Mpa).		- 4
Oil Circuit			
Breaker			
#5 - HWD-	Alligator cracking throughout top of pad.	Type B Repair for cracking & Type A for	2
04-BP	Cracks extend down approx 50mm deep.	any chipping of concrete.	
Structure	One comer on top of pad is chipped off.		
Low Voltage	(28 Mpa).		
#6 - HWD-0	Pitting and minor alligator cracking	Type B Repair for cracking & Type A for	2
Sul Hex	throughout top of pad. Top surface of pad	any chipping of concrete.	
Breaker	is rust covered. Minor chipping also present		
	on top portion of pad (50 Mpa).		· [

Prior	ity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	his corrective action or maintenance required at this time	





INSPECTION OF CONCRETE PADS & FOUNDATIONS Hardwoods (Upper Section) DATE INSPECTED: 13-Apr-02 SUBSTATION SITE: St. John's & Area **Priority** Recommendations Fdn/Pad **General Condition** Rating Type & No. 4 #7 - HWD-0 Good condition (42 Mpa). Sul Hex Breaker 2 Type B Repair #8 - HWD-Alligator cracking throughout top portion of pad, Cracks extend down approx. 50mm. 03-BP Top portion of pad seems to have been Structure recapped before (34 Mpa). Low Voltage 4 9 - T1-B Good condition (38 Mpa). Oil Circuit Breaker #10-HWD-0 Rough edges on top surface of pad. Remainder of pad is in good condition Oil Circuit Breaker (38 Mpa). 4 #11-HWD-0 |Slight scaling and rust covered on top surface of pad. Otherwise pad is in good Oil Circuit condition (38 Mpa). Breaker Type B Repair fo cracking & Type A Repair 2 #12 - HWD- Alligator cracking throughout top portion of for other areas of chipping. 06-BP pad. Cracks extend down approx 50mm. One comer of pad is chipped/eroded away Structure and portions of concrete can be removed Low Voltage with boot. Top portion of pad seems to have

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

been recapped before (34 Mpa).





SUBSTATION SITE:	Hardwoods (Upper Section)	DATE INSPECTED:	13-Apr-02	
	St. John's R. Aron			

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - T1-A Structure	Minor scaling and pitting on top surface of pad. Remainder of pad is in good condition	Type A Repair	3
High Voltage	(30 Mpa).		
#14 - T2-A Structure	Minor scaling and pitting on top surface of pad. Remainder of pad is in good condition	Type A Repair	3
High Voltage			
	One portion of edge of pad is chipped away approx. 300mm long. Remainder of pad is in good condition (30 Mpa).	Type A Repair	3
200200	in good condition (oo wpa).		
#16 - T1 Transformer 200271	Good condition (28 Mpa).		4
#17 - T1-A Structure High Voltage	Minor scaling on top surface of pad. Remainder of pad is in good condition (38 Mpa).		4
#18 - T2-A	Minor scaling on top surface of pad.		4
Structure High Voltage	Remainder of pad is in good condition		

ority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Hardwoods (Upper Section)	DATE INSPECTED:	13-Apr-02

ŀ			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - HWD-	Minor scaling on top surface of pad.		4
72L-DB	Remainder of pad is in good condition		
Structure	(38 Mpa).		
High Voltage			
	Good condition (38 Mpa).		4
79L-DB			
Structure	·		
High Voltage			
	Good condition (34 Mpa).		4
Sul Hex Breaker			
#22 - 79L-B	Good condition (30 Mpa).		4
Oil Circuit			
Breaker			
	Minor scaling and pitting on top surface of	Type A Repair	3
Structure	pad. Remainder of pad is in good condition		
High Voltage	(40 Mpa).		
#24 -	Good condition (28 Mpa).		4
Structure			
High Voltage			
			1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Hardwoods (Upper Section)	DATE INSPECTED:	13-Apr-02	

SUBSTATIO	St. John's & Area	DATE INSPECTED. 13-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 -5L-19L-	Good condition (42 Mpa).		4
BP-2			
Structure			
High Voltage			
	Minor scaling and pitting on top surface of	Type A Repair	3
Structure	pad. Remainder of pad is in good condition		
High Voltage	(44 Mpa).		
7 - 19L-B	Top surface of pad has minor chipping, a	Type A Repair	3
Circuit	rough finish and is rust covered. Remainder		
Breaker	of pad is in good condition (32 Mpa).		<u>.</u>
#28 - 5L-B	Top surface of pad has minor chipping, a	Туре А Кераіг	3_
Oil Circuit	rough finish and is rust covered. Remainder		
Breaker	of pad is in good condition (28 Mpa).		
#29 -19I - DB	Minor scaling and pitting on top surface of	Type A Repair	3
Structure	pad. Remainder of pad is in good condition	i Je vi robaii	
High Voltage			
)			
#30-5L-19L-	Minor scaling and pitting on top surface of	Type A Repair	3
BP-1	pad. Remainder of pad is in good condition		
Structure	(32 Mpa).		
High Voltage			

erity Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·



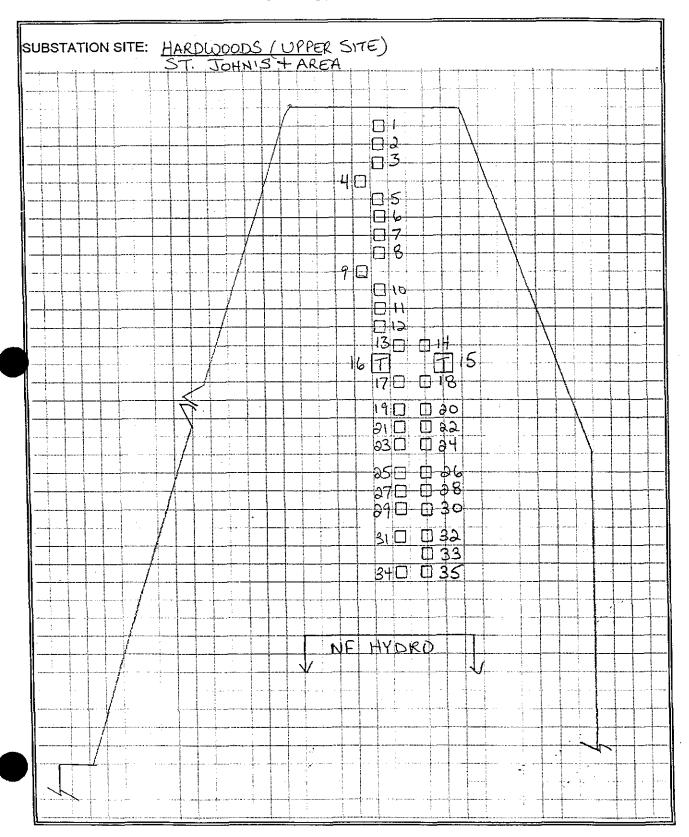


	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATION	N SITE: Hardwoods (Upper Section) St. John's & Area	DATE INSPECTED: 13-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good condition (24 Mpa).		4
Structure High Voltage			
	Minor scaling and pitting on top surface of	Type A Repair	3
Structure High Voltage	pad. Remainder of pad is in good condition (40 Mpa).		
33 - 54L-B	Top surface of pad has rough finish.		4
Sul Hex Breaker	Otherwise pad is in good condition (28 Mpa).		
#34 -	Top surface of pad had rough finish and	Type A Repair	3_
Structure	minor chipping on one edge. Remainder of pad is in good condition (42 Mpa).		
#35 -54L-GS	Top surface of pad has rough finish. Two	Type A Repair	3
Structure	comers of pad are chipped away (minor). Remainder of pad is in good condition (28 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
A	No corrective action or maintenance required at this time	











	INSPECTION OF CONCRETE P	ADS & FOUNDATIONS	
SUBSTATIO	N SITE: Hardwoods (Lower Section) D/	ATE INSPECTED: 13-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - HWD-	Slight scaling on top surface. Otherwise		4
07-DL	pad is in good condition (38 Mpa).		
Structure			
Low Voltage			
#2 - HWD-	Good condition (40 Mpa).		4
07-B			
SYNIZ			
Breaker			
Dioakoi			
#3 - HWD-	Good condition (42 Mpa).		4
`8-B	Cood condition (12 is pay).	1 17 Hz	
YNIZ			
Breaker			
Dieakei			
#4 - HWD-	Good condition (38 Mpa).		4
08-BP			
Structure			
Low Voltage			
ŀ			
#5 - HWD-	Good condition (28 Mpa).		4
T3-D			
Structure			
Low Voltage			
#6 - T3-B	Good condition (40 Mpa).		4
SYNIZ	Cood condition (40 mpa).		
Breaker	 		
ווטו במגבו			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION SITE:	Hardwoods (Lower	Section)	DATE INSPECTED:	13-Apr-02

Fdn/Pad	General Condition	Recommendations	Priority
Type & No.	General Condition	Kecommendations	Rating
‡ 7 -	Good condition (40 Mpa).		4
Structure			
Low Voltage			
¥8 -	Good condition (34 Mpa).		4
Structure			
High Voltage			
			······
#9 - T3	Good condition (24 Mpa).		4
Transformer			
200341			
#10 - HWD-	Good condition (32 Mpa).		4
T3-A			
Structure			·
High Voltage			<u>·</u>
	Good condition (42 Mpa).		4
Sul Hex Breaker			
DIGAKEL			
			1.
#12 - 73L-	One hairline crack with approx. 1-2mm	Type C Repair	2
GS	separation through comer of pad and also		
Structure	through anchorbolt, extends down approx.		
High Voltage	150mm. Comer has potential to chip off if		
ĺ	not repaired. Remainder of pad is in good	<u> </u>	
1	condition (34 Mpa).	1	i

<u>Pric</u>	ority Rating	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



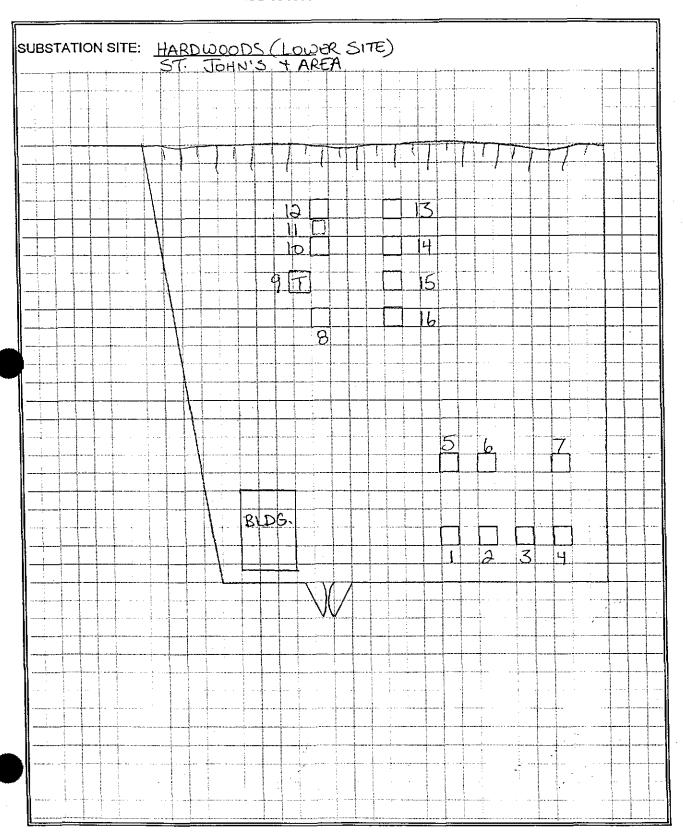


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	N SITE: Hardwoods (Lower Section St. John's & Area	n) DATE INSPECTED: 13-Apr-02	<u> </u>
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - Structure High Voltage	Good condition (34 Mpa).		4
#14 - HWD-	Good condition (28 Mpa).		4
BTS-2 Structure High Voltage			
#15 - HWD- ⁴ 9L-B il Circuit Breaker	Good condition (34 Mpa).		4
#16 - 49L-DB	Good condition (32 Mpa).		4
Structure High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









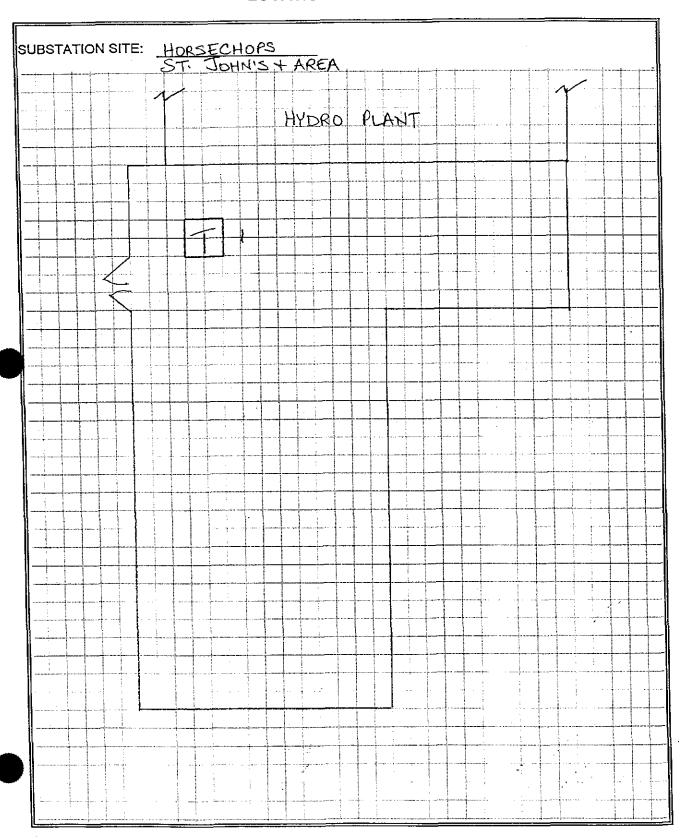


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	N SITE: Horsechops St. John's & Area	DATE INSPECTED: 17-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Spill pan installed under transformer.		
Transformer	No visible areas of concrete to make		_
200165	assessment.		
			_
	,		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•











	INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	I SITE: Kelligrews St. John's & Area	DATE INSPECTED: 15-Apr-02		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
	Good condition (36 Mpa).		4	
Structure Low Voltage				
#2 - KEL-02	Minor scaling on top surface of pad.	Future Monitoring	4	
Recloser	Remainder of pad is in good condition (34 Mpa).			
#3 - KEL-	One small hairline crack (less than 1mm	Type B Repair	3	
02-BP	separation) on top surface of pad.			
structure	Remainder of pad is in good condition			
Low Voltage	(30 Mpa).			
#4 - KEL-	Good condition (42 Mpa).		4	
01-R				
Recloser				
ue VEI	One minor hairline crack (less than 1mm	Type B Repair	3	
#5 - KEL-	separation and approx. 50mm long).	1,1,5		
01-DL Structure	Remainder of pad is in good condition			
Low Voltage	(50 Mpa).			
#6 - T1-B	Good condition (30 Mpa).		4	
Oil Circuit	Cook condition (so Hipsy).			
Breaker				
J. Caron				

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





	INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	N SITE: Kelligrews St. John's & Area	DATE INSPECTED: 15-Apr-02	· · · · · · · · · · · · · · · · · · ·	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#7 - T1-D Structure Low Voltage	Minor chipping on two corners of pad. Remainder of pad is in good condition (28 Mpa).	Type A Repair	3	
#8 - T1 Transformer 200144			4	
#9 - 52L-DL	Good condition (30 Mpa).		4	
Structure ligh Voltage				
#10 - 52L-B	Good condition (28 Mpa).		4	
Oil Circuit Breaker				
#11 -51L-DE	Good condition (28 Mpa).		4	
Structure High Voltage	9			
#12 - 51L-B	Good condition (28 Mpa).		4	
Oil Circuit Breaker				

Priority Rating	Priority Description	Recommended Time Frame
_ 1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTIO	NOF CONCRETE PADS	S & FOUNDATIONS
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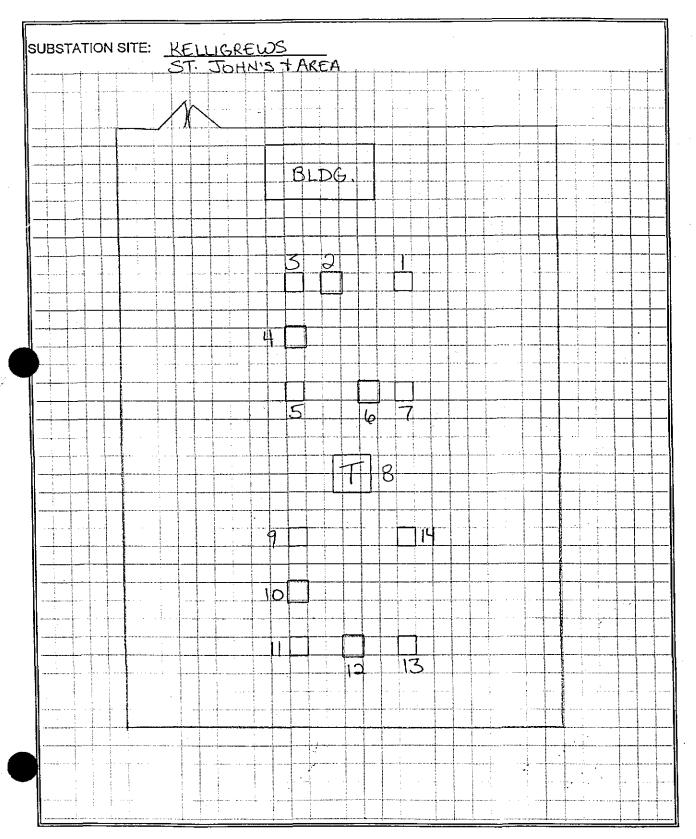
DATE INSPECTED: 15-Apr-02

SUBSTATION SITE: Kelligrews DATE INSPECTED: 15-Apr-02			
	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
Structure	One small area on top surface of pad is chipped. Remainder of pad is in good condition (28 Mpa).	Type A Repair	3
#14 - T1-A Structure High Voltage	Good condition (42 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
. 4	No corrective action or maintenance required at this time	











Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - No # _ow Voltage Structure	Good Condition (28MPa)		4
#2 - No # Not in Use	Good Condition (28MPa)		4
#3 - No # Not in Use	Good Condition (30MPa)		4
#4 - Ken-03-DL Low Voltage Structure	Good Condition . There is several very small hairline cracks starting to develop (30MPa)	Future Monitoring	4
#5 - Ken-03-B Sul Hex Breaker	Good Condition (40MPa)		4
#6 - KEN-04-DL Sul Hex Breaker	Good Condition (40MPa)		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
	the second section and the second security of this time	





li		
ISUBSTATION SITE:	Kenmount	Г

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - KEN-04-DL	Good Condition (46MPa)		4
Low Voltage			
Structure			
#8 - No #	Good Condition (40MPa)		4
Not in Use			
#9 - No #	Good Condition (40MPa)		4
Not in Use			
#10 - No #	Good Condition		4
Not in Use			
#11 - No #	Good Condition (38MPa)		4
Not in Use			
#12 Kan 02 D	Good Condition with some very minor	Type A minor Repair	3
Low Voltage Structure	scaling starting to show on top surface	туре А пинот перап	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION S	TE: Kenmount	DATE INSPECTED: April 9,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - Ken-02 Recloser	Good Condition (30MPa)		4
#14 - T1-B Oil Breaker	Good Condition (34MPa)		4
#15 - Ken-T2-D Low Voltage	Good Condition . Very minor scaling starting to show on top surface	Type A Minor Repair	3
Structure	(35MPa)		
#16 - T2-B	Good Condition (36MPa)		4
Recloser			

#17 - No #	Good Condition (42MPa)			4
Low Voltage		·		
Structure				<u> </u>
				_
				
#18 - No #	There are 3 small pads together			4
Not in Use	All in Good Condition			}
				-

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Kenmount	_DATE INSPECTED:	April 5,2002	
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Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - No #	Good Condition (36MPa)		4
Not in Use			
	·	-	
#20 - No #	Good Condition (38MPa)		4
Not in Use			
·			
#21 - No #	Good Condition		4
Not in Use			
			
#22 - No #	Good Condition (44MPa)		4
2 600X600			
Pads			
#23 - No #	Good Condition (46MPa)		4
2 600X600			
Pads			
#24 - T2-200342	Good Condition (38MPa)		4
Transformer	Cood Condition (Collett d)		
]

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



Oil Breaker



INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION SI	TE: Kenmount	DATE INSPECTED: April 5,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good Condition (32MPa)		4
Transformer			_
#26 - 69L-DB	Fair to Good Condition.	Type A Repair to remove and replace	3
High Voltage	There are two areas on the top surface	the two areas previously patched	[
Structure	that appears to have been resurfaced		_
	previously. These areas are now loose but		
	concrete in under looks good		
#27 - T2-A	Good Condition.		4
High Voltage			
Structure			
#28 - No #	Good Condition. (30MPa)		4
High Voltage	Cook Contains (Cook S)		
Structure			
			4
#29 - 54L-GS	Good Condition (28MPa)	 	4
High Voltage			
Structure			
#00 K 54 5	B Eair to Good Condition. The surface has	Type A Repair	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years

No corrective action or maintenance required at this time

the cement/sand matrix deteriorated a

little and the top edges are coarse with

exposed aggregate.





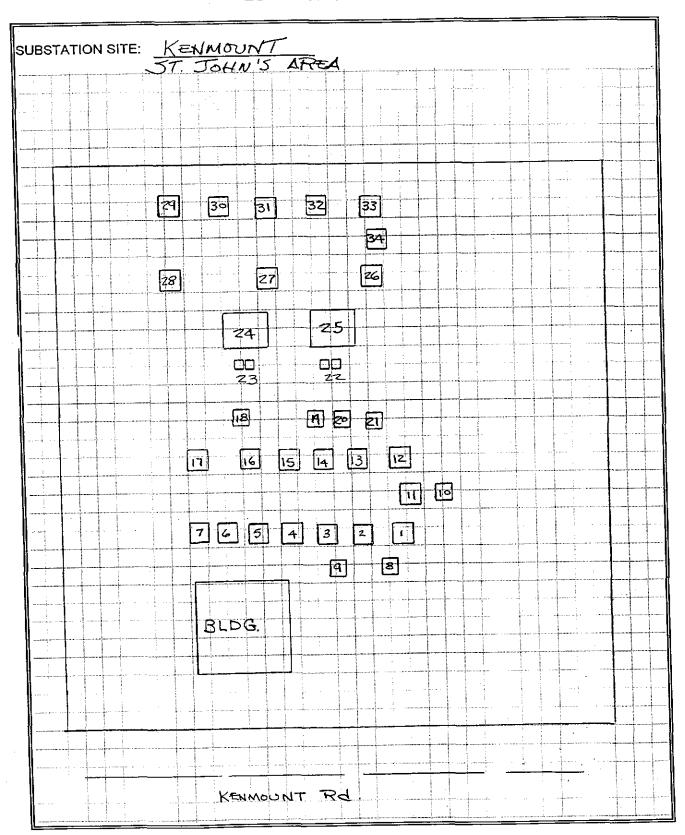
SUBSTATION SITE:	Kenmount	DATE INSPECTED:	April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#31 - 54L-DL	Good Condition (36MPa)		4
High Voltage			
Structure			
#32 - 35L-B	Good Condition (32MPa)		4
Sul Hex			
Breaker			· ·
#33 - 35L-DL	Good Condition (34MPa)		4
High Voltage			
tructure			
#34 - 69L-B	Good Condition (42MPa)		4
Oil Breaker			
			<u>:</u>
I.	\	*	}

Priority	y Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	











INSPECTION OF CONCRE	TE PADS & FOUNDATIONS		
SUBSTATION SITE: King's Bridge DATE INSPECTED: 9-Ap St. John's & Area		pr-02	
General Condition	Recommendations	Priority Rating	
Good condition.		4	
1 small hairline crack side of pad	Type B Repair	3	
Good condition (48 Mpa).		4	
One area along top edge is spalled off.	Type A Repair	3	
Remainder of pad is in good condition.			
		·	
Good condition (48 Mpa).		4	
Good condition.		. 4	
· · · · · · · · · · · · · · · · · · ·			
· -			
	Good condition (48 Mpa). King's Bridge St. John's & Area General Condition Good condition. 1 small hairline crack side of pad (separation of less than 1mm) approx. 150mm long. Good condition (48 Mpa).	General Condition General Condition Recommendations Good condition. 1 small hairline crack side of pad (separation of less than 1mm) approx. 150mm long. Good condition (48 Mpa). One area along top edge is spalled off. Remainder of pad is in good condition. Good condition (48 Mpa). Good condition (48 Mpa).	

Priority Rating	Priority Description	Recommended Time Frame	
1	Immediate corrective action required	within 1 year	
_ 2	Corrective action required to avoid increasing costs to repair	within 3 years	
3	General maintenance item	within 5 years	
4	No corrective action or maintenance required at this time		



	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATION	N SITE: King's Bridge St. John's & Area	DATE INSPECTED: 9-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good condition.		4
Transformer			
200131			
#9 - T2	Several small chunks of concrete removed.	Type A Repair	2
Transformer	Minor scaling on top part of pad. Small		1
200130	crack on 1 corner. Remainder of pad is in		4
	fair condition (40 Mpa).		4
			4
			ļ
410 - KBR -	Several small pieces of concrete removed		4
.2L-DB	on top surface. Overall in good condition.		-
Structure			4
High Voltage			-
	<u>'</u>		+
#44 KDD	Olicht coelling on a couple corners Bosto	Type A Repair at a minimum with possible	1 2
#11 - KBR - 30 L- DB	Slight spalling on a couple corners. Paste removed part way down upper portion of	Type D depending on amount of loose	
Structure	pad, aggregate is exposed in two areas.	concrete encountered duruing repair	- ·
	Overall in fair condition (36 Mpa).	preparation.	1
High Voltage	Overall III fall Collection (55 Mpa).	proparation	<u>-</u>
#12 - KBR -	Alligator cracking throughout top and sides	Type D Repair	2
BTS-3	of pad (approx. top 350mm portion).		4
Structure	Spalling on two corners with aggregate		_
High Voltage	exposed on sides of pad in several areas.		4
	Overall condition is generally poor.		-
#13 -	Alligator cracking throughout top and sides	Type A Repair	3
Structure	of pad. Slight spalling on corners and minor	- VIII -	1
	scaling on top surface of pad. Slight		
I light voitage	honeycombing in several areas, overall in		
	fair condition (42 Mpa).		
41	in source (in the).	. 	_

riority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



2

	INODECTION OF CONCRETE	DADE & EQUINDATIONS	
	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATIO	N SITE: King's Bridge	DATE INSPECTED: 9-Apr-02	
	St. John's & Area		
Fdn/Pad	General Condition	Recommendations	Priority
Type & No.			Rating
#14 - KBR-	Slight scaling on top surface. Good		4
T1-A	condition.		
Structure			
High Voltage			
#15 -	1 small hairline crack side of pad	Type A & Type B Repair	3
Structure	(separation of less than 1mm) approx.		
High Voltage	150mm long. Slight spalling on one		
	corner. Remainder of pad in good condition.		
	(43 Mpa)		
#16 -	Slight spalling on edges of pad.	Type A Repair	3
othead			
tructure			
			[
#17 - KBR-	Top of pad is in good condition. Sides of		4
CT-2	pad is showing signs of honeycombing.		
Structure			1

#18 -	Good condition (36 Mpa).		4
Pothead].
Structure			
			1
ll .			ĺ

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

in future.

#19 - 12L-B Alligator cracking and associated hairline

50-75mm of pad.

Oil Circuit

Breaker

cracking throughout top of pad. Slight

area where junction box is installed.

Damage seems to be contained to top

spalling on corners of pad. Damage around

Type B Repair with possible Type D Repair

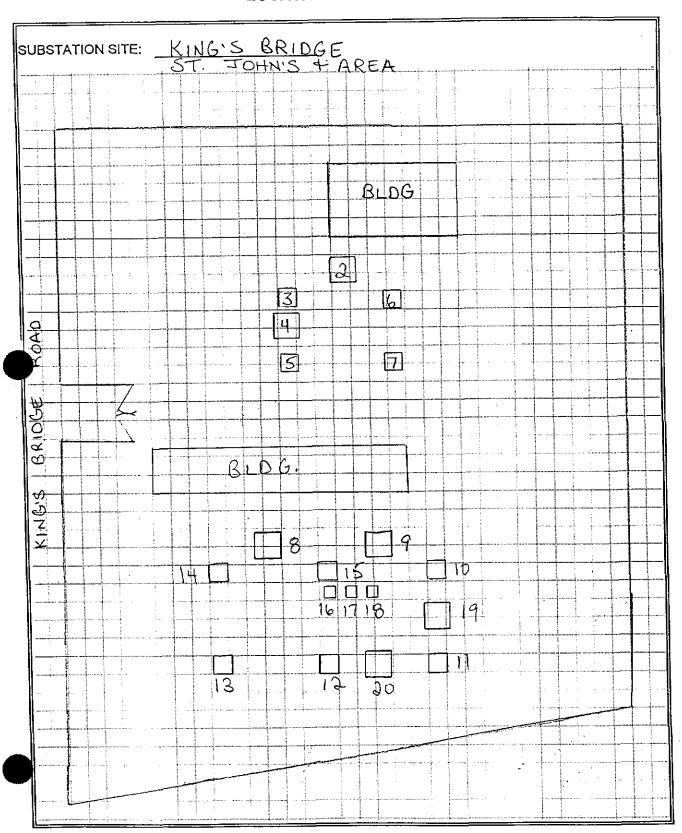


INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATION SITE: King's Bridge DATE INSPECTED: 9-Apr-02 St. John's & Area				
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#20 - 30L-B Sul Hex Breaker	Alligator cracking and minor hairline cracking throughout top surface of pad. Sides of pad seem to be in fair condition.	Type B Repair	3	
	Slight spalling on corners (36 Mpa).			
~				

Priority Description	Recommended Time Frame
Immediate corrective action required	within 1 year
Corrective action required to avoid increasing costs to repair	within 3 years
General maintenance item	within 5 years
No corrective action or maintenance required at this time	
	Immediate corrective action required Corrective action required to avoid increasing costs to repair General maintenance item











SUBSTATION SITE: Memorial ____ DATE INSPECTED: 12-Apr-02
St. John's & Area_____

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T2-D(A)	Alligator cracking and associated hairline	Type C Repair	1
Structure	cracking on top surface and sides of pad.		
High Voltage	Some hairline cracks have 1mm separation		
	and are approx 200mm long (28 Mpa).		
#2 - T1-D(A)	Five minor hairline cracks (less than 1mm	Type B Repair	3
Structure	separation). Remainder of pad is in fair		
High Voltage	condition (32 Mpa).		
#3 - T1	Alligator cracking and associated hairline	Type B Repair	2
Transformer	cracking on top surface of pad. Remainder		
200142	of pad is in fair condition (32 Mpa).		
#4 - T2	Good condition (36 Mpa).		4
Transformer			
200273			
#5 - T2-D	Alligator cracking and associated hairline	Type C Repair	1
Structure	cracking on top surface and sides of pad.		
High Voltage			
	and are approx 200mm long (32 Mpa).		
#6 - T1-D	Two hairline cracks on pad that extend	Туре В Repair	2
Structure	down approx. 150mm and have a an approx	(
High Voltage	separation of less than 1mm. Remainder		
İ	of pad is in fair condition (28 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1 `	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



Oil Circuit Breaker



INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 12-Apr-02 SUBSTATION SITE: Memorial St. John's & Area **General Condition** Fdn/Pad **Priority** Recommendations Type & No. Rating 2 #7 - 12L-DL Minor alligator cracking on top surface. Type B Repair Four minor hairline cracks (typical location Structure High Voltage midway across each side of pad) that have less than 1mm separation (34 Mpa). #8 - 12L-DB Minor alligator cracking throughout top and Type B Repair sides of pad. Several hairline cracks (less Structure High Voltage than 1mm separation) that extend down from top of pad approx. 150mm) (28 Mpa). #9 - 14L-DB Faint alligator cracking and three minor Type B Repair Structure hairline cracks (less than 1mm separation) High Voltage on top surface (32 Mpa). Remainder of pad is in fair condition. #10 - 14L-DL Faint alligator cracking on top surface of Type B Repair 3 pad. One minor hairline crack approx. Structure High Voltage 100mm long. Remainder of pad is in good condition (34 Mpa). #11 - 12L-B | Good condition (22 Mpa). 4 Oil Circuit Breaker #12 - 14L-B Good condition (22 Mpa).

<u>Prior</u>	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	ı,

Memorial

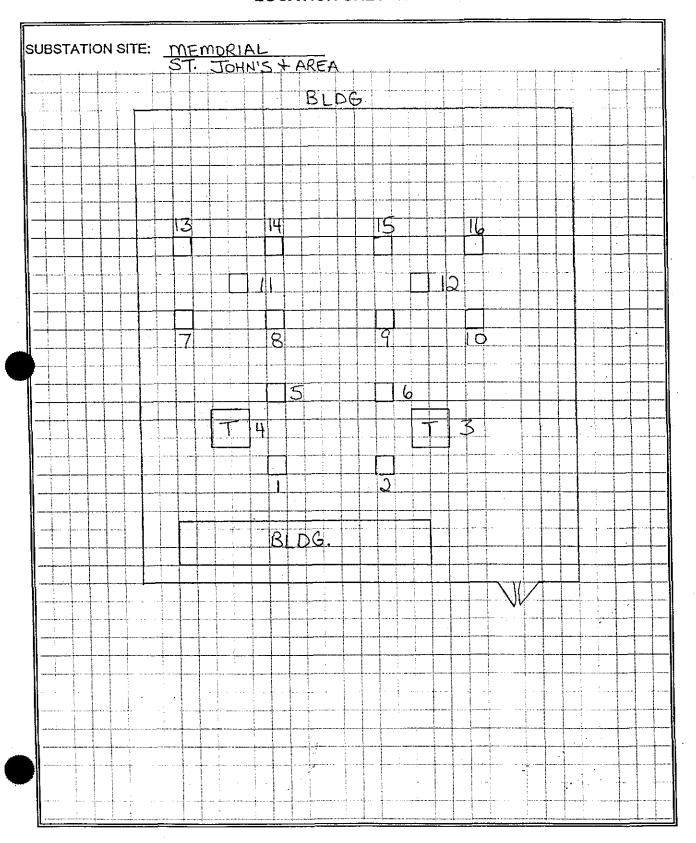
DATE INSPECTED: 12-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - 12l -DI	Alligator cracking throughout top and sides	Type B Repair	2
Structure	of pad. One hairline crack (less than 1mm		
High Voltage	separation) that extends across top of		
,g ,	pad and down sides approx. 150mm		
	(36 Mpa).		
#14 - 12L-	Minor alligator cracking on top surface. Two	Type B Repair	2
DB	minor hairline cracks that extend across		
Structure	top surface and down sides approx. 100mm		
High Voltage	(42 Mpa).		
_			
			2
#15 - 14L-	Minor alligator cracking on top surface. One	Type B Repair	
DB	minor hairline crack that extend across		
IStructure	top surface and down sides approx. 150mm		
High Voltage	(32 Mpa).		
		Tune B Donnie	2
#16 - 14L-	Minor alligator cracking on top surface. One	Туре в керап	-
DL	minor hairline crack that extend across		
Structure	top surface and down sides approx. 150mm		
High Voltage	e (28 Mpa).		
<u> </u>			-
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









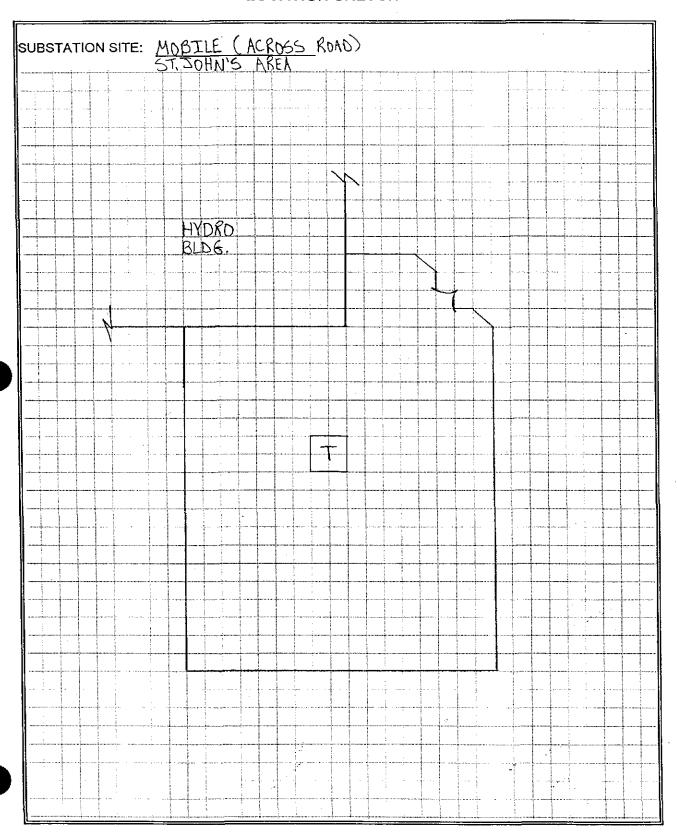


INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATION	N SITE:	Mobile (Lower Section) St. John's & Area	DATE INSPECTED: 17-Apr-02	
Fdn/Pad Type & No.		General Condition	Recommendations	Priority Rating
Transformer	Visible po	installed under transformer, ortion of pad seems to be in dition (26 Mpa).	Complete concrete inspection not possible.	4
		1		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·











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Mobile (Upper Section)

DATE INSPECTED: 17-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
1 - 23L-B	Minor alligator cracking and minor scaling	Type A & B Repairs	2
Oil Circuit	on top surface. One edge on top		
Breaker	surface is eroded back approx. 75mm		
·	deep, some aggregate is exposed		
	(42 Mpa).		
#2 - T3	Spill pan installed under transformer.		4
Transformer	Visible portion of pad seems to be in good		
200132	condition (26 Mpa).		
· 			
#3 - T2	Spill pan installed under transformer.		<u> </u>
Transformer	No visible areas of concrete to inspect.		
200266			
#4 - MOB-	Good condition (26 Mpa).		4
02-R	Odd Solidani (25 in.pa).		
Recloser	<u> </u>		
/CCIOSCI			
#5 - MOB-	Good condition (26 Mpa).		4
#5 - MOB- 01-R	Good Condition (20 Mpa).		
Recloser			
	O and a supplified (OO Mass)		4
#6 - 20L-B	Good condition (28 Mpa).		
Oil Circuit			
Breaker			
	1		

Priority Rating 1

Priority Description

Immediate corrective action required

- Corrective action required to avoid increasing costs to repair 2
- 3 General maintenance item
- No corrective action or maintenance required at this time

Recommended Time Frame

within 1 year

within 3 years

within 5 years

NEWFOUNDLAND

POWER

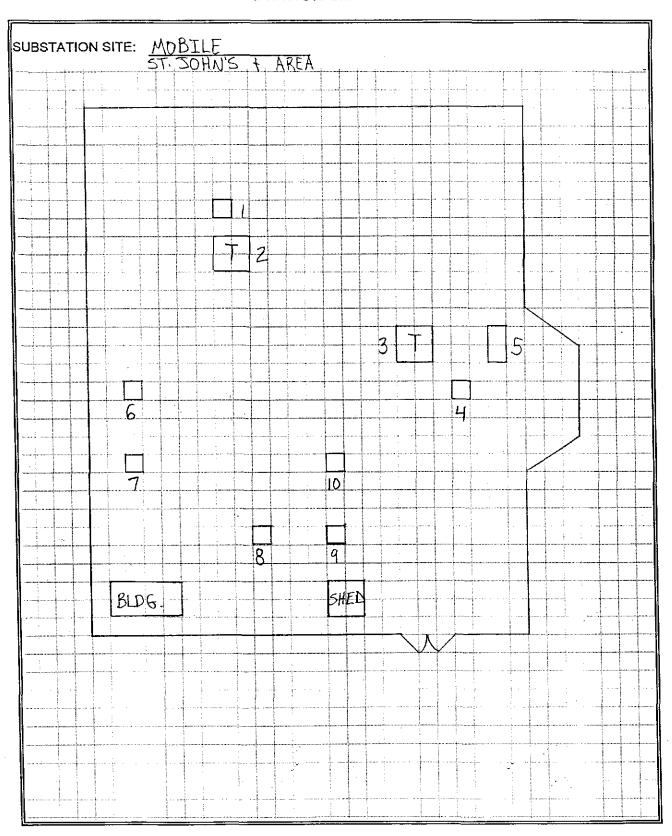


ISTATION SITE: DATE INSPECTED: 17-Apr-02 Mobile (Upper Section) St. John's & Area **Priority** Recommendations Fdn/Pad **General Condition** Rating Type & No. 4 Good condition (22 Mpa). #7 - 11L-B Oil Circuit Breaker #8 - MOB-Good condition (32 Mpa). T1-B Sul Hex Breaker #9 - MOB-Good condition (34 Mpa). 24L-B Sul Hex Breaker 0 - MOB- Good condition (24 Mpa). 17L-B Sul Hex Breaker

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
A	No corrective action or maintenance required at this time	











	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATIO	N SITE: Molloy's Lane St. John's & Area	DATE INSPECTED: 11-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - MOL-	One corner of pad is chipped. Remainder of	Type A Repair	3
07-DB	pad is in good condition.		
Structure			
Low Voltage			
			4
#2 - Not In	Minor scaling on top surface of pad.		- *
Use	Remainder of pad is in good condition (28 Mpa).		
#3 -	Good condition.		4
Pothead			
Structure			
w Voltage			
#4 - MOL-	Minor scaling on top surface. Remainder of		4
06-DB	pad is in good condition (42 Mpa).		
Oil Circuit			
Breaker			
#5 -	Small amount of pitting on top surface.		4
Pothead-06	Remainder of pad is in good condition.		
Structure			
Low Voltage			
#6 - MOL-	Top surface is rust covered. Remainder of		. 4
06-BP	pad is in good condition (42 Mpa).		
Structure			
Low Voltage	.1	Ĭ	ı

Prio	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	•

#10 - MOL-02-B

Oil Circuit Breaker Good condition (28 Mpa).



SUBSTATION	N SITE: Molloy's Lane St. John's & Area	DATE INSPECTED: 11-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - MOL-	Good condition.		4
03-B			
Oil Circuit			
Breaker			
#8 - MOL-03	Good condition (42 Mpa).		4
Pothead			
Structure			
Low Voltage			·
#9 - MOL-	Good condition.		4
J2-BP			
Structure			
Low Voitage			

#11-MOL-02	Good condition.			4
Pothead				
Structure				
Low Voltage				
#12 -	Several hairline cracks (less than 1mm	Type B Repair		2
Structure	separation and extend down approx.			
Low Voltage	175mm) and associated alligator	<u> </u>		
	cracking. Some of the cracks pass through			
	bolt locations in pad (32 Mpa).			
		_1	Recommended Time Fran	ne
Priority Rating				<u>110</u>
1	Immediate corrective action required		within 1 year	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance Item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION	OF CONCRE	TE PADS 8	& FOUNDATIONS	3

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Molloy's Lane

DATE INSPECTED: 11-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Rust on top surface of pad, otherwise pad		4
Use	is in good condition.		
#14 - MOL-	Minor pitting and scaling on top surface of	Type A Repair	3
T2-B	pad. Remainder of pad is in good condition		
Oil Circuit	(38 Mpa).		
Breaker	·		
	Several hairline cracks (less than 1mm	Type B Repair	2
ructure	separation and extend down approx.		
v Voltage	175mm) and associated alligator		
	cracking. Some of the cracks pass through		
	bolt locations in pad.		
#16 - T1-DB	Rust on top surface of pad, otherwise pad		4
Structure	is in good condition (34 Mpa).		
Low Voltage			
#17 - T1-B	Good condition.		4
Oil Circuit			
Breaker			
	Minor scaling and some rust on top surface		4
Oil Circuit	of pad. Remainder of pad is in good		
Breaker	condition (31 Mpa).		
II	1		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION SITE: Molloy's Lane DATE INSPECTED: 11-Apr-02
St. John's & Area

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - MOL-	Minor pitting on top surface of pad.	Type A Repair	3
04 Pothead	Remainder of pad is in good condition.		
Structure			
Low Voltage			
#20 - MOL-	Good condition (28 Mpa).		4
04-DL			
Structure			
Low Voltage			
	Minor scaling on top surface of pad.		4
Jil Circuit	Remainder of pad is in good condition.		
Breaker	·		
#22 - MOL-	Good condition (44 Mpa).		4
01 Pothead			
Structure			<u> </u>
Low Voltage			
	Good condition.		4
Oil Circuit			
Breaker			
#24 - MOL-	Minor scaling on top surface of pad.		4
05 Pothead			
Structure	(44 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION OF CONCRETE PADS & FOUNDATIONS

		•	•
SUBSTATION SITE:	Molloy's Lane	DATE INSPECTED:	11-Apr-02
	St. John's & Area		"

Fdn/Pad General Condition Recommendations P				
Type & No.	·		Rating	
#25 -MOL-	Good condition.		4	
05-DL				
Structure				
Low Voltage				
	Minor scaling and some rust on top		4	
Oil Circuit	surface of pad. Remainder of pad is in			
Breaker	good condition (44 Mpa).			
#27 - MOL-	Good condition.		4	
Pothead				
ructure	12-7-78-64-6			
Low Voltage				
#28 - MOL-	Top surface is rust covered and remainder		4	
09-B	of pad is in good condition (54 Mpa).			
Oil Circuit				
Breaker				
#29 - MOL-	Good condition.		4	
09 Pothead				
Structure				
Low Voltage			- - -	
#30 - MOL-	Good condition (44 Mpa).		4	
09-BP]	
Structure				
Low Voltage			1	
			-	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



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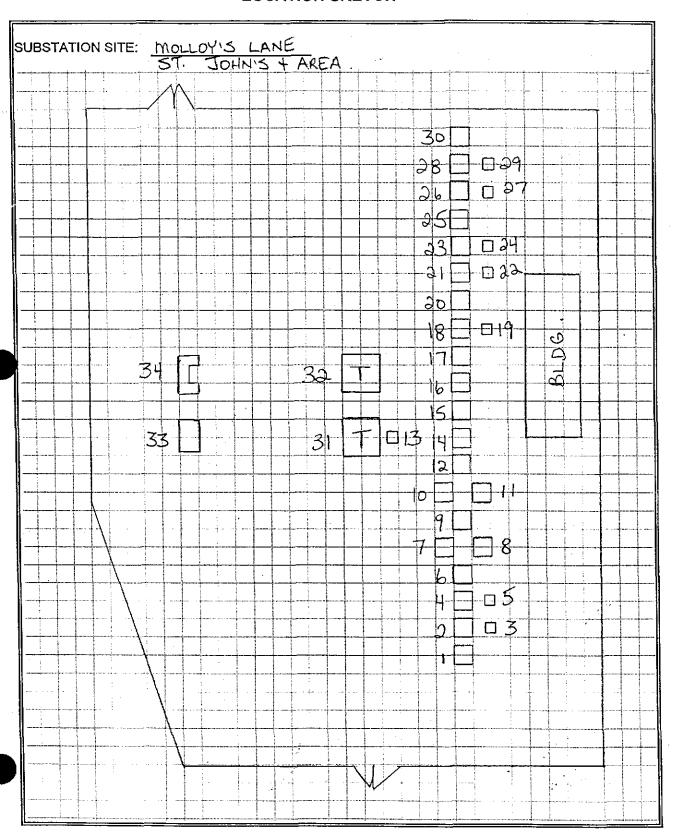
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SUBSTATION SITE:	Molloy's Lane	DATE INSPECTED:	11-Apr-02	
	St. John's & Area			

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#31 - T2	Addition is poured alongside original pad.		4
Transformer	Minor chipping on top surface of pad where		
200295	the two pads are joined, otherwise pad is		
	in good condition.		1
#32 - T1	Area from midway on one side to midway	Type A Repair	2
Transformer	on adjacent side is spalled affecting an	7,5	
200324	area of approx 50mm deep and wide		
200024	(36 Mpa).		
#33 - 101 -B	Several areas of minor chipping on top	Type A Repair	3
il Circuit	surface.		
Breaker			
#34 - 15L-B	Good condition (28 Mpa).		4
Oil Circuit			
Breaker			4
			1
			1
			<u> </u>
			1
			<u> </u>

riority Rating	Priority Description	Recommended Time Frame
1	immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE:	Oxen Pond	_DATE INSPECTED:	April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - No #	Good Condition (42MPa)		4
Structure			
Low Voltage			
-			
#2 - OXP-01-B	Good Condition (40MPa)		4
Oil Breaker			
	Good Condition (40MPa)		4
Structure			
Low Voltage			
#4 - 3616	Good Condition		4
Metering Tank			
·			
#5 - T1-200279	Good Condition (28MPa)		4
Transformer			
#6 - OXP-70L	Good Condition with exception of a small	Туре А Repair	3
-DP	hairline crack on top and one side.		
Structure			
High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Oxen Pond

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition Recommendations D.				Priority Rating
#7 - OXP-34L	Fair condition - 3 cracks that extend out	Type A Repair for Honeycombing and	2		
-DB	from middle of block to sides. Minor	Type C Repair for the cracking.			
Structure	alligator cracking and one small area with				
Hìgh Voltage	honeycombing located on side of foundation (42MPa)				
#8 - OXP-34L	Good condition with several minor hairline	Type B Repair	3		
-DL	cracks. (34MPa)				
Structure					
High Voltage					
#9 - OXP-32L	Good condition with several minor hairline	Type B Repair	3		
-DB	cracks. (36MPa)				
Structure			1		
High Voltage					
#10 - No #	Good condition with several minor hairline	Type B Repair	3		
Structure	cracks (32MPa)				
High Voltage					
#11 - T1-A	Fair condition with several areas of	Type A Repair	2		
Structure	honeycombing that may have exposed				
High Voltage	reinforcing steel. (28MPa)				
#12 - 70L-B	Good Condition (36MPa)		4		
Oil Breaker	,				

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Oxen Pond

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - 34L-B	Poor condition with the top and sides badly	Type E Repair recommended	11
Oil Breaker	deteriorated. Concrete can be easily	considering the type of foundation and the	i
Sii Broakoi	picked away with shovel. A minimum of	depth of concrete required to repair the	
	150 to 200 mm of the top should be	top of the foundation. Total replacement	
	replaced. Strength test along the sides	would be the most cost effective approach	
	indicated 20 to 24 Mpa (relatively low).		
#14 - 32L-B	Fair to Good Condition.	Type Type B Repair	3
Oil Breaker	There are two minor cracks and some		
O, Broaker	surface cement/sand matrix deterioration.		
#15 - 67L-GS	Good Condition (40MPa)	Future Monitoring	4
Structure			
High Voltage	Several very minor Hairline cracks starting		
ing., conage	to develop.		
			
#16 - OXP-31L	Good Condition (38MPa)	Future Monitoring	4
-DP			-
Structure	Several very minor Hairline cracks starting		-
High Voltage	to develop.		-
			1
#17 - OXP-31L	Good Condition (44MPa)	Future Monitoring	4
-DB			1
Structure	Several very minor Hairline cracks starting		_
High Voltage	to develop.		-
			1
#18 - 35-L-DB	Good Condition (45MPa)		4
Structure			-
High Voltage			4
		<u> </u>	-
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II.			

Priority Rating	Priority Description Immediate corrective action required	Recommended Time Frame within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Oxen Pond

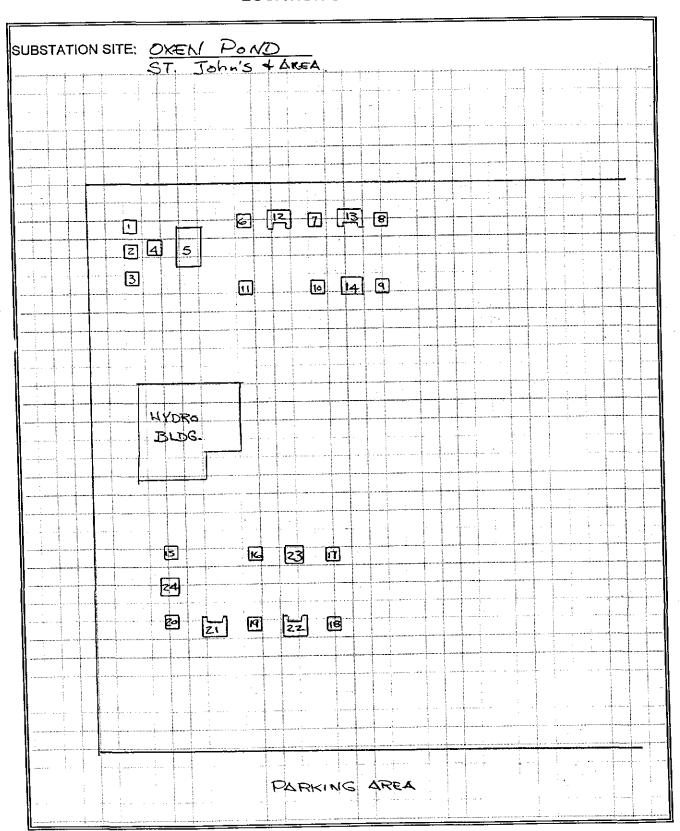
DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - 58L-DB	Good Condition (44MPa)	Future Monitoring	4
Structure			
High Voltage	Several very minor Hairline cracks starting		
	to develop.		
#20 - 67L-DB	Good Condition (41MPa)		4
Structure			
High Voltage			
#21 - 58L-B	Good Condition		4
Sul Hex	The surface is a little coarse on exposed		
Breaker	concrete		
#00 051 D	One do Contiller (ONED)		4
#22 - 35L-B Oil Breaker	Good Condition (38MPa)		4
Oli Dieakei			
#23 - 31L-B	Good Condition (37MPa)		4
Sul Hex			
Breaker			
·			
#24 - No #	Good Condition (40Mpa)		4
Oil Breaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









Structure



INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 10-Apr-02 Pepperell SUBSTATION SITE: St. John's & Area Recommendations **Priority General Condition** Fdn/Pad Rating Type & No. 4 Good condition (28 Mpa). #1 - T1 Transformer 200309 3 Small area of minor alligator cracking on Type B Repair #2 - T1-A top surface of pad. Remainder of pad is in Structure High Voltage good condition (28 Mpa). 4 #3 - PEP-Good condition (32 Mpa). 16L-DL Structure ligh Voltage Good condition (32 Mpa). #4 - Not In Use #5 - 16L-B Good condition (32 Mpa). Sul Hex Breaker 2 #6 - PEP-Type A & Type C Repair Top corner of pad is cracked to a depth of approx. 150mm with portions of concrete 16L-GS

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
. 2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•

removed. Minor alligator and associated

Spalling on top and sides of pad (28 Mpa).

High Voltage hairline cracking throughout top of pad.

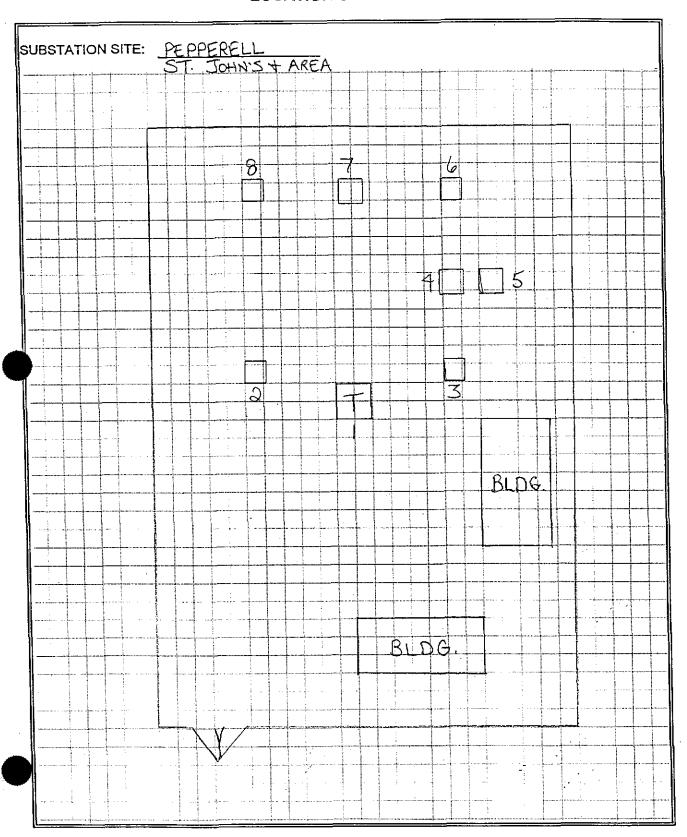


INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATIO	N SITE: Pepperell St. John's & Area	DATE INSPECTED: 10-Apr-02		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#7 - 74L-B Oil Circuit Breaker	Good condition (34 Mpa).		4	
#8 - 74L- GS Structure High Voltage	One minor hairline crack on top surface of pad. Small portions of concrete have eroded off on 2 corners close to base of structure to a depth of approx. 40mm (26 Mpa).	Type A & Type B Repairs	2	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











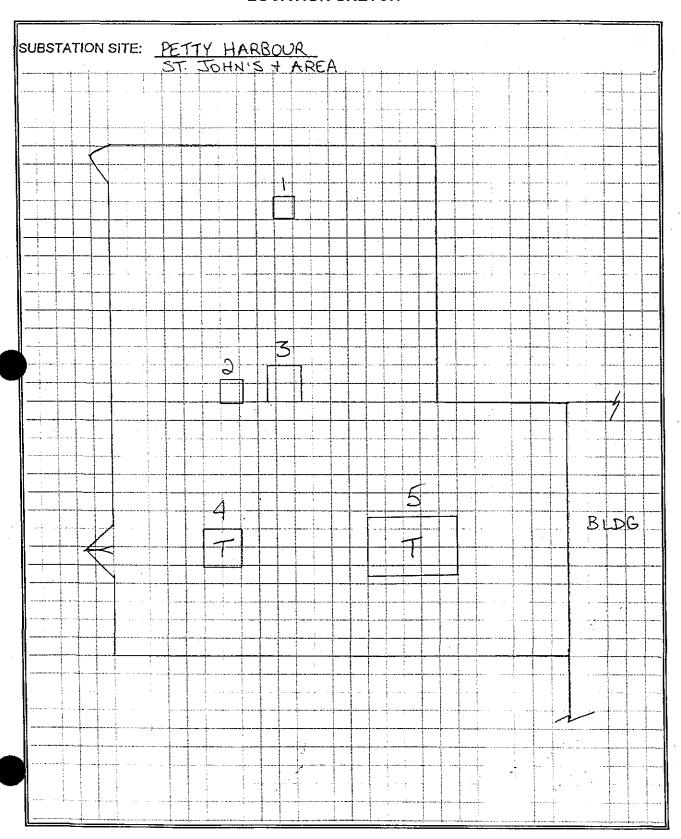
INSPECTI	ON OF	CONCRETE	PADS &	FOUNDATIONS

SUBSTATION	N SITE: Petty Harbour St. John's & Area	DATE INSPECTED: 10-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good condition (34 Mpa).		4
3L-B			_
SYNIZ			
Breaker			
#2 - PHR-	Good condition (24MPa).		4
01-R			
Recloser			
			-
1			
#3 Not In	Good condition (42 Mpa).		4
Use			
<u> </u>			[
			4
#4 - T3	Good condition (42 Mpa).		-
Transformer			\dashv
200098			
			-
			_
#5 - T1	Spill pan installed under transformer.	Type A Repair for limited concrete that	3
	Visible portion of pad indicates that an	was visible.	
200325	addition was poured alongside the		
	original pad. Several hairline cracks are		
1	visible along with some scaling and pitting		
l	(28 Mpa).		
			_
H			_
11			1

1 Immediate corrective action required within 1 year 2 Corrective action required to avoid increasing costs to repair within 3 year	<u>ıme</u>
2 Corrective action required to avoid increasing costs to repair within 3 year	
	;
3 General maintenance item within 5 year	3
4 No corrective action or maintenance required at this time	









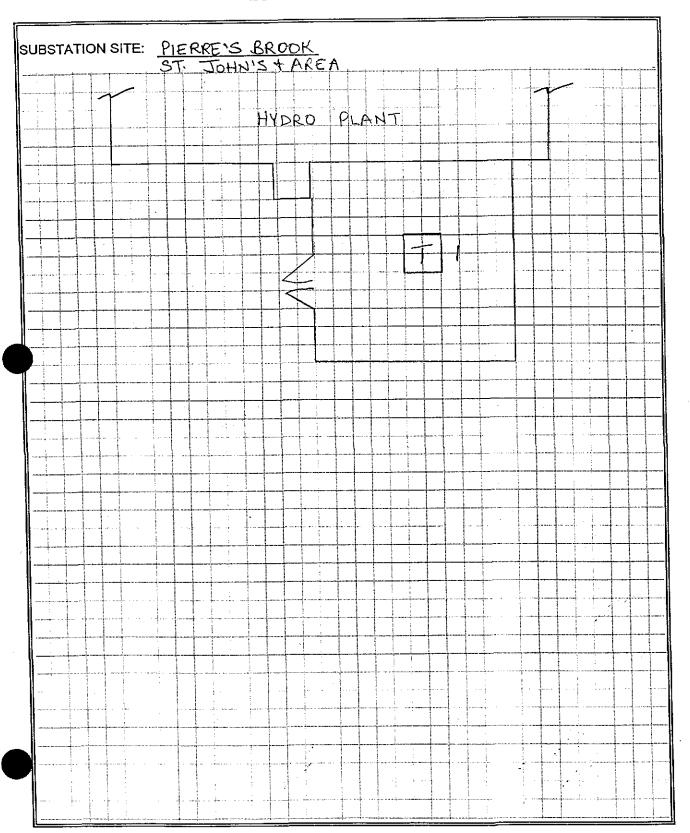


	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATION	N SITE: Pierre's Brook St. John's & Area	_DATE INSPECTED: 17-Apr-02	·
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Spill pan installed under transformer, no		4
Transformer	Spill pan installed under transformer, no visible portion of pad to assess.		1
200149			
<u> </u>			- - -
			<u> </u>
			- - -

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









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	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATION	N SITE: Pulpit Rock St. John's & Area	DATE INSPECTED: 9-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - Metering Box Structure Low Voltage	Slight spalling on one comer. Overall pad is in good condition (28MPa).	Type A Repair	3
#2 - Not In Use	Good condition.		4
#3 - PUL- 01-R Recloser	Top of pad has several hairline cracks that extend from top of pad down approx. 100mm. Overall condition of pad is fair. (37 Mpa).	Type B Repair	2
#4 - PUL- 01-BP	Good condition.		4
Structure Low Voltage			
#5 - Not In Use	Good condition.		4
#6 - PUL- 02-R Recloser	Four small areas of minor alligator cracking (28MPa).	Type B Repair	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION OF	CONCRETE PADS &	FOUNDATIONS

SUBSTATION SITE:	Pulpit Rock	DATE INSPECTED:	9-Apr-02
	St. John's & Area		

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - PUL- 02-BP Structure	One small area on top of pad has aggregate exposed (34MPa). Remainder of pad is in good condition.	Type A Repair	3
Low Voltage			
#8 -	Good condition.		4
Metering			
Tank			
#9 - Not In	Good condition.		4
e			
	,		
#10 - T1	Three small hairline cracks, less than 1mm	Type B Repair	3
	separation. Remainder of pad is in good		
200345	condition (28MPa).		
	Spalling and pitting in several areas on top	Type A Repair	3
Charger	of pad. Overall pad is in fair condition		
Cabinet Structure	(24 Mpa).		
#12 -	Minor spalling on one corner. Overall	Type A Repair	3
Structure	pad is in good condition.		
High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
. 3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



	INSPECTION OF CONCRETE	PADS & FOUNDATIONS						
SUBSTATION SITE: Pulpit Rock DATE INSPECTED: 9-Apr-02 St. John's & Area								
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating					
#13 - Structure High Voltage	Spalling on one comer of pad. Overall pad is in good condition (24MPa).	Type A Repair	3					
#14 - T1-HG Structure High Voltage	Good condition.		4					
#15 - structure High Voltage	Good condition (24MPa).		4					
#16 - 59L-A1 Structure High Voltage	Good condition.		4					
			 -					

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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SUBSTATION SITE:

Ridge Road

DATE INSPECTED: 10-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
‡1 - T1	Several minor hairline cracks on top	Type B Repair	3
	surface of pad. Overall pad is in fair		
200188	condition (44 Mpa).		
#2 - T2	Several minor hairline cracks and patches		4
Transformer	of minor alligator cracking on top surface		
200228	of pad. Remainder of pad is in good		
	condition (58 Mpa).		
#3 - RRD-	Alligator and associated hairline cracking	Type C Repair	1
32L-DL	throughout pad. Some of these cracks		
Structure	extend down through pad approx. 200mm		
High Voltage	with a separation of 2mm. One comer has		
	potential to separate from main portion of		
	pad if no action is taken.		
#4 -	Good condition (44 Mpa).		4
Structure			
High Voltage			
#5 - RRD-	Good condition (44 Mpa).		4
T2-A			
Structure			
High Voltage			
		Tura A Denois for coelling 9 Tune D	2
#6 - 30L-B	Minor spalling, hairline and alligator	Type A Repair for spalling & Type B	
Sul Hex	cracking throughout top of pad (52 Mpa).	Repair for cracks.	
Breaker			—
			
l	1		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION SITE:	Ridge Road	DATE INSPECTED:	10-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - RRD-	Good condition (54 Mpa).		4
T3-A			
Structure		140	
High Voltage			_
	Slight spalling on corners. Remainder	Type A Repair	3
67L-DB	of pad is in good condition (50 Mpa).		
Structure			
High Voltage			
#9 - 67L-B	Alligator cracking and associated hairline	Type B Repair	3
Sul Hex	cracking (approx. 150mm long and less		
aker	than 1mm separation). Remainder of pad is		
	in fair condition (56 Mpa).		
#10 -	Good condition (46 Mpa).		4
Structure		·	
High Voltage			
#11 - 32L-B	Minor alligator and hairline cracking,	Type A & B Repair	2
Sul Hex	pitting and spalling. Slight damage on pad,		
Breaker	possibly as a result of truck outriggers,		
	with an area of exposed aggregate.		
	Overall condition is fair (46 Mpa).		
#12 - T3-	Good condition (26 Mpa).		4
Transformer			
200272			
		A. discrete	

Prio	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
V	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	

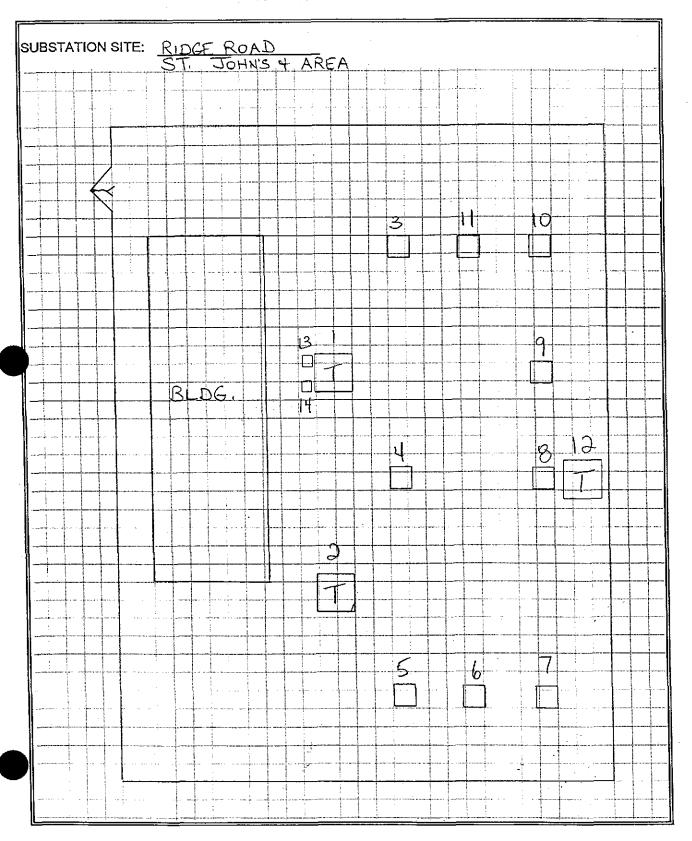


INSPECTION OF CONCRETE PADS & FOUNDATIONS					
SUBSTATIO	N SITE: Rid	ge Road John's & Area	DATE INSPECTED:	10-Apr-02	
Fdn/Pad Type & No.	G	eneral Condition	Recomm	endations	Priority Rating
#13 - T1- Pothead Structure	Good condition	n.			4
#14 - T1- Pothead	Good conditio	n.			4
Structure					
					,
					<u> </u>

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









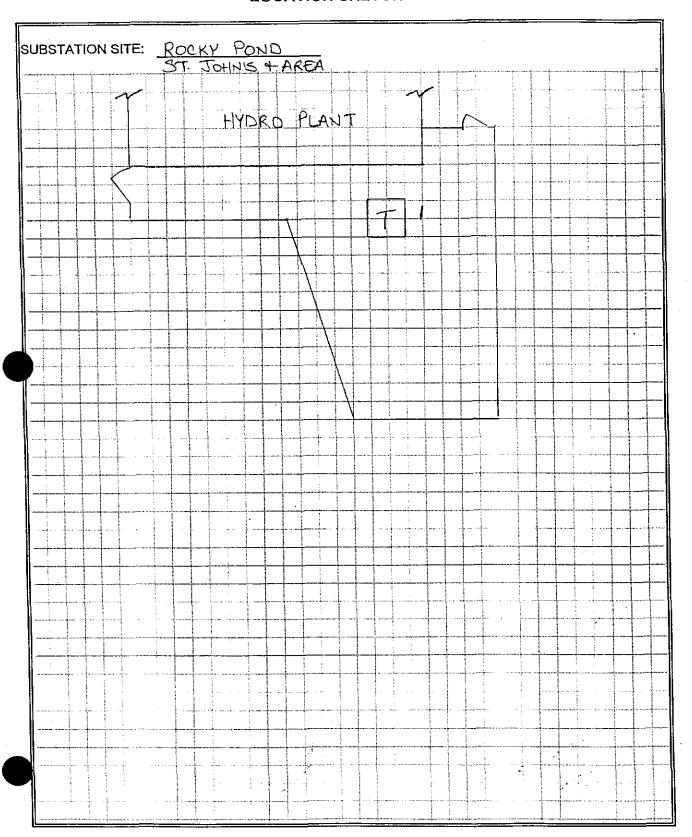


	INSPECTION OF CONCRE	TE PADS & FOUNDATIONS	
SUBSTATION SITE: Rocky Pond DATE INSPECTED: 17-Apr-02 St. John's & Area			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Spill pan installed under transformer.	Limited concrete visibility however the concrete that can be observed is in need	1
Transformer	Visible portion of pad seems to be in	concrete that can be observed is in fleed	-
200148	poor condition (24 Mpa).	of repair. The exact type of repair should	-{
		be determined after the spill pan is	-
		removed.	
			
			
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D Define	Priority Description	Recommended Time Frame
Priority Rating		within 1 year
1	Immediate corrective action required	within 2 years
2	Corrective action required to avoid increasing costs to repair	within 3 years
2	General maintenance item	within 5 years
3	- - · · · · · · · · · · · · · · · · · ·	
4	No corrective action or maintenance required at this time	











SUBSTATION SITE:

Seal Cove (Upper Section)

DATE INSPECTED: 15-Apr-02

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	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 -	Small pad has hairline cracking throughout	Type A Repair for large pad and replace	111
Structure	one side (this area is partly eroded away	smaller pad section.	
High Voltage	portions of concrete can be removed with		
<u> </u>	boot), overall small pad in poor condition		
	42 Mpa. Main pad is in fair condition with		
	chipping and alligator cracking one corner.		<u> </u>
#2 -	Small pad has two minor hairline cracks,	Type B Repair	3
Structure	otherwise pad is in good condition (28 Mpa)		
High Voltage			
#3 - SCV-	Small pad has minor alligator cracking on	Type B Repair	2
38L-DL	top surface, remainder of small pad in fair		_]
Structure	condition (42 Mpa). Main pad has alligator		
High Voltage	cracking through top surface with one		
	hairline crack on one corner that extends		_]
_	down side approx. 250mm.		
#4 - 38L-B	Good condition (22 Mpa).		4
Oil Circuit]
Breaker			_
#5 - 38L-BP	Small pad is in good condition (36 Mpa).	Type B Repair	2
Structure	Main pad has alligator cracking on top and		
High Voltage	side surfaces (36 Mpa).		_
#6 - T2-FD	One small area on top of pad is pitted.	Type A Repair	3
Structure	Remainder of pad is in good condition		_
High Voltage	(50 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:

Seal Cove (Upper Section)
St. John's & Area

DATE INSPECTED: 15-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - T2	Spill pan installed under transformer.		4
Transformer	Addition poured alongside original pad.		
	Visible section of pad seems to be in good		
	condition (24 Mpa).		
,			
			1
#8 - SCV-	Minor alligator cracking on top and side	Type B Repair	2
T2-A	surfaces of pad. Overall in fair condition		
Structure	(50 Mpa).		
High Voltage			
ĺ			
#9 - T1-A	Good condition (40 Mpa).		4
Structure			
gh Voltage			_
#10 - T1	Spill pan installed under transformer.	Type B Repair based on limited visibility	3
	Visible portion of pad shows signs of	of concrete	_
200283	alligator cracking (42 Mpa).		_
"44: 001			
#11 - SCV-	Good condition (44 Mpa).		4
T1-A			
Structure			
High Voltage			_
			-
#12 -	Small pad is in good condition (44 Mpa).		4
Structure	Main parties in good condition (44 Mpa).		- -
11	cracking on one area, otherwise pad		-
ngn voltage	is in good condition (34 Mpa).		
	is in good condition (34 Mpa).		-
			-
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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ISUBSTATION SITE:	Seal Cove (ľ

Seal Cove (Upper Section)
St. John's & Area

DATE INSPECTED: 15-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 -	Small pad is in good condition (42 Mpa).		4
Structure			
High Voltage			
444 601	Small pad has one comer chipped. Minor	Type A & B Repairs	3
#14 - SCV-	alligator cracking on sides of pad,	Туре да в порало	
52L-DB Structure	otherwise pad is in good condition (44 Mpa)		
Structure High Voltage			
#15 - 52L-B	Minor alligator cracking on top and sides	Type A & B Repairs	2
Sul Hex	of pad. One end of pad has one corner		
Breaker	eroded away with some aggregate		
	exposed and portions can be kicked away		
	with boot (42 Mpa).		
#16 - SCV-	Minor alligator cracking on sides of pad.	Type B Repair	3
52L-BP	On top surface of pad there are two		
Structure	hairline cracks, overall pad is in fair		
High Voltage	condition (28 Mpa).		
447	Two hairline cracks present that extend	Type B Repair	3
#17 -	down from top surface of pad approx.	13po D Itopan	
Structure	e 100mm, otherwise pad is in good		
High Voltage	condition (42 Mpa).		
i i			
#18 -	One minor hairline crack present on pad,	Type B Repair	3
Structure	otherwise pad is in good condition (28 Mpa)		
High Voltag	е		
			
			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

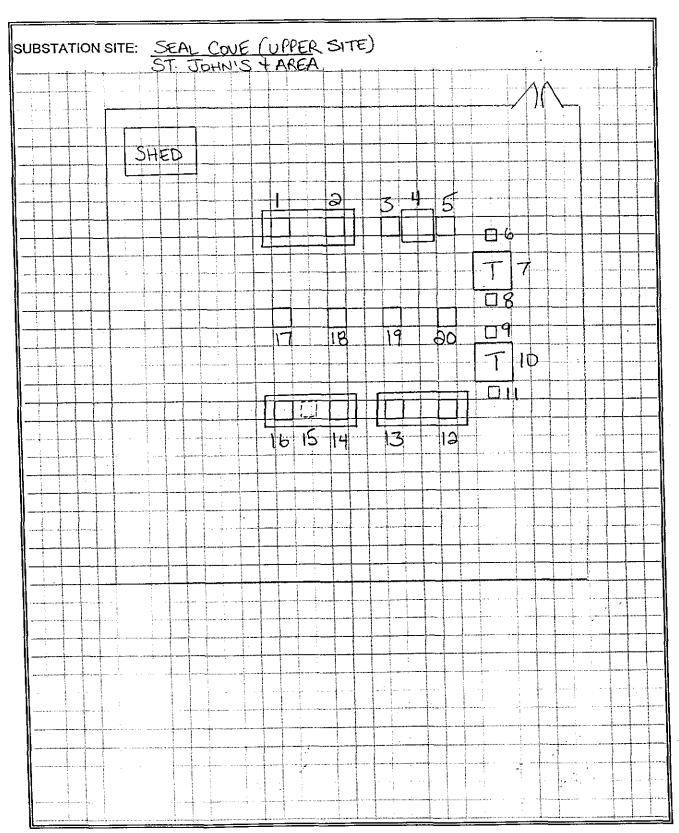


SUBSTATION	N SITE: Seal Cove (Upper Section) St. John's & Area	DATE INSPECTED: 15-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - SCV -	One corner of pad is chipped. Remainder	Type A Repair	3
BTS-2	of pad is in good condition (40 Mpa).		
Structure			_
High Voltage			\dashv
#20 -	Minor alligator cracking on one area of pad.	. Type B Repair	3
Structure	Remainder of pad is in good condition		—
High Voltage	(40 Mpa).		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
· 3	General maintenance item	withIn 5 years
4	No corrective action or maintenance required at this time	









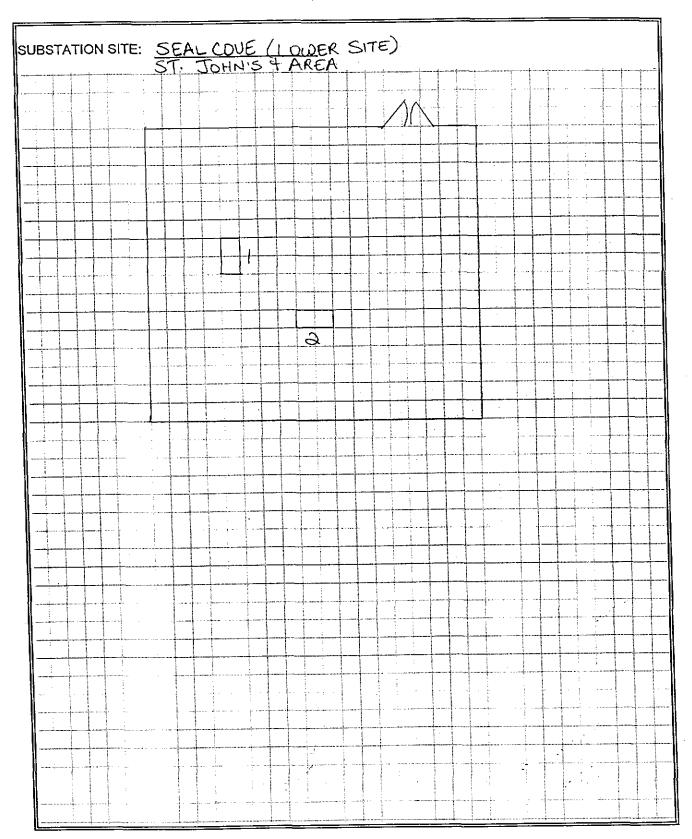


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	N SITE: Seal Cove (Lower Section) St. John's & Area	DATE INSPECTED: 15-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - SCV- 02-R	Good condition (28 Mpa).		4
Recloser			
#2 - SCV-	Good condition (28 Mpa).		4
01-R Recloser			
			-

<u>Priori</u>	<u>ty Rating</u>	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
_	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	•











SUBSTATION SITE:

St. John's Main St. John's & Area DATE INSPECTED: 11-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - 13L	Alligator cracking throughout top of pad that	Type C Repair	2
Pothead	extend down approx. 75mm and have		
Structure	separated approx. 1-2mm (42 Mpa).		7
High Voltage			_
#2 - 13L	Several hairline cracks on top surface of	Type B Repair	3
Pothead	pad. Three of these cracks extend down		-
Structure	side of pad approx. 50mm with no visible		1
	separation (40 Mpa).		
#3 - 13L	Two hairline cracks on top surface of pad	Type B Repair	3
⊇othead	with less than 1mm separation (40 Mpa).		
ucture			_
nigh Voltage			
#4 - Not In	Good condition (30 Mpa).		4
Use			
#5 - Not In	Good condition (40 Mpa).		4
Use			-
#6 - Not In	One minor hairline crack on top surface.	Type B Repair	3
Use	Remainder of pad is in good condition (40 Mpa).		_
			-

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 11-Apr-02 SUBSTATION SITE: St. John's Main St. John's & Area **Priority** Recommendations **General Condition** Fdn/Pad Rating Type & No. 4 Good condition. #7 - SJM-25L-GS Structure High Voltage #8 - 25L-B Good condition (40 Mpa). Sul Hex Breaker One corner is chipped away approx. 50mm Type A Repair #9 - SJMlong. Remainder of pad is in good condition. 13L-DL tructure High Voltage 2 #10 - 13L-B Alligator cracking and associated hairline Type B Repair cracking throughout top of pad (less than Sul Hex 1mm separation). Remainder of pad is in Breaker fair condition (50 Mpa). 3 One corner is chipped away approx. 50mm Type A Repair #11 - SJMlong. Remainder of surface is rust covered. 13L-GS Structure High Voltage Type A & B Repairs Additional pad poured alongside existing #12 - Not In pad. Some scaling and minor hairline Use cracking (less than 1mm separation) on top surface of pad (48 Mpa).

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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St. John's Main

DATE INSPECTED: 11-Apr-02

St	John	's & .	Area

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - Structure	Spalling on all four corners of pad, parts of corners can be moved away with boot.	Type A & B Repair	2
	Alligator cracking throughout top surface		
rigii voltage	of pad. Concrete is very brittle along top		
	edges of pad.	-	
#14 - SJM-	Good condition.		4
26L-DL			
Structure			
High Voltage			
#15 - SJM-	Good condition.		4
BTS-1			
ucture			
igh Voltage			
#16 - SJM-	Good condition (48 Mpa).		4
BTS-2	, , , , , , , , , , , , , , , , , , ,		
Structure			
High Voltage			
#17 - SJM-	Minor alligator cracking on top surface.	Type A & B Repairs	3
T1-A	Minor spalling on one comer. Remainder		
Structure High Voltage	of pad is in good condition		
#18 - T1	Two areas chipped away on top edge of	Type A Repair	3
	surface, possibly done while moving		
200294	transformer. Remainder of pad is in good		
	condition.		

Priority	Rating

Priority Description

Recommended Time Frame

1	
2	

Immediate corrective action required

within 1 year

Corrective action required to avoid increasing costs to repair

within 3 years

General maintenance item

within 5 years

No corrective action or maintenance required at this time



	INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	SUBSTATION SITE: St. John's Main DATE INSPECTED: 11-Apr-02 St. John's & Area			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#19 - T4	Good condition.		4	
Transformer				
200117				
			_	
#20 - SJM-	Good condition.		4	
05-BP				
Structure				
Low Voltage				
				
#04 T4 D	Good condition (30 Mpa).		4	
#21 - T4-B Oil Circuit	Good condition (30 Mpa).		•	
Breaker				
Dieakei	1			
	, , , , , , , , , , , , , , , , , , , ,			
#22 - T4-B	Good condition.		4	
BP				
Structure				
Low Voltage				
#23 - SJM-	One corner of pad is chipped. Remainder		4	
01-BP	of pad is in good condition (34 Mpa).			
Structure				
Low Voltage				
	I I I I I I I I I I I I I I I I I I I	Tuno A Bonois	3	
#24 - SJM-	Minor chipping on top surface. Remainder	Type A Repair	- 	
01-BP	of pad is in good condition.			
Structure				
Low Voltage				

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No servetive estimate armaintanance required at this time	





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St. John's Main St. John's & Area

DATE INSPECTED: 11-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - SJM-	Pitting around one bolthole. Remainder	Type A Repair	3
01 Pothead	of pad is in good condition.		
Structure			
#26 - SJM-	Minor scaling on top surface. Remainder		4
12-B	of pad is in good condition (40 Mpa).		
Oil Circuit			
Breaker			
#27 - SJM- 12	Pitting around one bolthole. Remainder of	Type A repair	3
	pad is in good condition.		
thead			
ucture			· · ·
#28 - SJM-	Good condition (38 Mpa)		4
12-BP			
Structure			1
Low Voltage			
#29 - T2	Several areas on top surface of pad are	Type A Repair	3
	chipped. Remainder of pad is in good		
200317	condition (24 Mpa).		
#30 - Not In	Good condition.		4
Use		<u> </u>	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
N SITE: St. John's Main St. John's & Area	DATE INSPECTED: _11-Apr-02	
General Condition	Recommendations	Priority Rating
Good condition (42 Mpa).		4
Good condition		4
Good condition.		
Pitting in two areas of top surface of pad.	Type A Repair	3
Severe alligator cracking throughout top of	Recommend replacement if pad is to	
pad. Pitting and cracking also present.	be used in future.	
Good condition (42 Mpa).		4_
Severe alligator cracking throughout top of	Recommend replacement if pad is to	
pad with associated hairline cracking. Overall pad is in poor condition.	be used in future.	
	Good condition. Good condition. Good condition. Good condition. Pitting in two areas of top surface of pad. Remainder of pad is in good condition (34 Mpa). Severe alligator cracking throughout top of pad. Pitting and cracking also present. Good condition (42 Mpa).	General Condition Good condition (42 Mpa). Good condition. Good condition. Pitting in two areas of top surface of pad. Remainder of pad is in good condition (34 Mpa). Severe alligator cracking throughout top of pad. Pitting and cracking also present. Good condition (42 Mpa). Good condition (42 Mpa). Recommend replacement if pad is to be used in future. Severe alligator cracking throughout top of pad with associated hairline cracking.

Priority Rating	Priority Description	Recommended Time Frame
1	immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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St. John's Main St. John's & Area DATE INSPECTED: 11-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#37 - SJM-	Good condition (42 Mpa).		4
BTS-4		` `	
Structure			
High Voltage			
#38 - 4L	Minor amount of pitting on top surface of	Type A Repair	3
Pothead	pad. Remainder of pad is in good condition.		
Structure			
#39 - 4L	Good condition (34 Mpa).		4
Pothead			
iructure			
#40 - 4L Pothead	Minor amount of pitting on top surface of pad. Remainder of pad is in good condition.	Type A Repair	3
Structure			
#41 - SJM-	Pitting in several areas of top surface of	Type A Repair	3
4L	pad. Remainder of pad is in good condition		
Structure	(26 Mpa).		
High Voltage			
#42 -	Minor hairline cracking on top surface (less	Туре В Repair	2
Structure	than 1mm separation) that extend down		
High Voltage	approx. 100mm.		

Prio	rity Rating	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	•



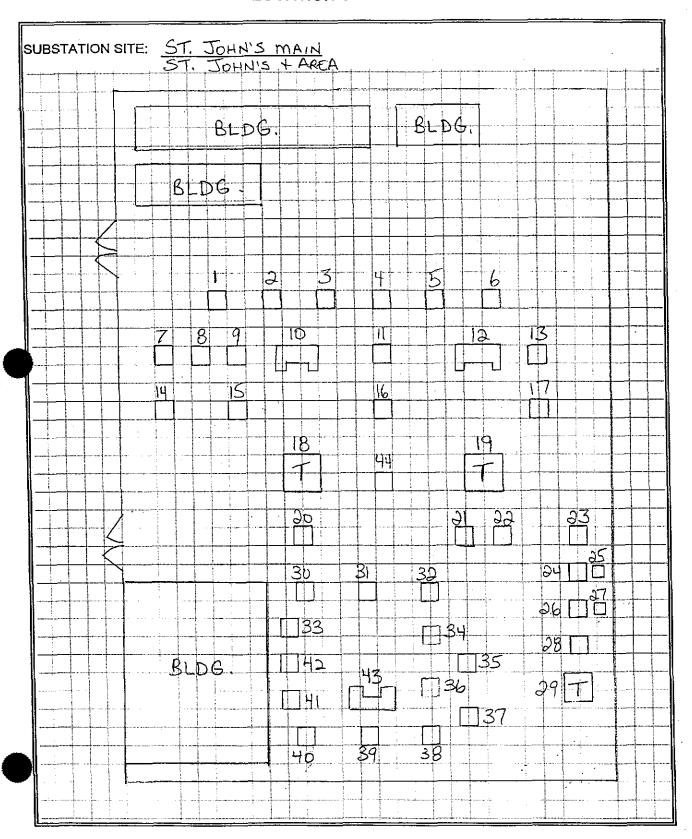


	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATIO	N SITE: St. John's Main St. John's & Area	DATE INSPECTED: 11-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#43 - 4L-B	Several areas of pitting on top surface of	Type A Repair	3
Sul Hex	pad. Remainder of pad is in good condition		_
Breaker	(38 Mpa).		_
			_
#44 - SJM-	One area on top surface is pitted.	Type A Repair	3
05 Pothead	Remainder of pad is in good condition.		
Structure			_
Low Voltage			
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No postportive action or maintenance required at this time	









SUBSTATION SITE:

Stamps Lane

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 SLA-T1-A	Top 800mm of foundation has severe	Type D repair at a minimun. However if	_ 1
Structure	alligator cracking and numerous other	it is observed during the removal of the	
ligh Voltage	cracks >1mm. Concrete also chipped and	disintegrated concrete that the cracking	
	spalled off along top edges & corners with	continues extensively below grade then a	
	rusty appearance on surface. Over all this	Type E repair would be recommended.	
•	foundation is in poor condition. (32MPa)		
#2 14L-B	Good Condition (36 Mpa)		4
Sul Hex			
Breaker			
#3	Top 800mm of foundation has severe	Type D repair at a minimun. However if	1
SLA-14L-DL	alligator cracking and numerous other	it is observed during the removal of the	
Structure	cracks >1mm. Concrete also chipped and	disintegrated concrete that the cracking	
High Voltage	spalled off along top edges & corners with	continues extensively below grade then a	
ingii voltage	little support remaining for structure base	Type E repair would be recommended.	
	base plates. Poor condition overall.		<u> </u>
#4 31L-B			4
Oil Breaker	Good Condition (40MPa)		
#5 SLA-31L-	Top 300mm of foundation has alligator	Type D repair at a minimun. However if	1
DL	cracking and numerous other cracks >1mm	it is observed during the removal of the	
Structure	Concrete is chipped and spalled off on one	disintegrated concrete that the cracking	
High Voltage	corner	continues extensively below grade then a	
		Type E repair would be recommended.	1
#6 69-B	The surface of the middle portion of the page	Type A repair	2
Sul Hex	is scaling off (approx. 5mm layer)		4
Breaker	Remainer of concrete pad is in Good		4
	Condition. (38MPa)		1
			†

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION SITE:

Stamps Lane

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7-SLA-69L-DL	Several minor cracks (<1mm)	Type B repair	3
Structure	Fair to Good Condition. (37MPa)		
High Voltage			
	Note: Foundation completely covered with		1
	stone.		
40 CLA TO A	The ten advance and detailed and an III at		
#8 - SLA-T2-A Structure	The top edges are deteriorated and spalled off. Some spalling & chipping on top	Type D minor repair.	2
	surface.		
High Voltage	зипасе.		
	Note: Foundation completely gave and with	· · · · · · · · · · · · · · · · · · ·	
	Note: Foundation completely covered with		
#0 CLAPTC 4	stone.	To a December 1	4
	Top 300mm of foundation has severe	Type D repair at a minimun. However if	1
Structure	alligator cracking and numerous other	it is observed during the removal of the	
ligh Voltage	cracks >1mm. Concrete also chipped and	disintegrated concrete that the cracking	·
	spalled off along top edges & corners with	continues extensively below grade then a	
	rusty appearance on surface. Over all this	Type E repair would be recommended.	
#40 T 4 00000	foundation is in poor condition. (34MPa)		
#10 - T1-200220			4
Transformer	Good Condition (43MPa)		
	Good Condition (34MPa)		4
Transformer			
#12 - SLA-BTS	One corner has a crack extending outward	Type C repair	2
-5	from anchor bolt across corner.		
Structure	Remainer of foundation in good condition		
High Voltage			
ì			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
. 4	No corrective action or maintenance required at this time	•





SUBSTATION SITE: Stamps Lane ______ DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - 70L-B	Good Condition (40MPa)		4
Sul Hex			
Breaker			
#14 - SLA-15L	Good Condition (40MPa)		4
-DB			
Structure			
High Voltage			
#15 - 15-LB	Good condition with exception of areas	Type A repair	3
Oil Breaker	with roughened surface because of		
	weathered cement sand matrix.(25MPa)		
	Note: Hard to get smooth surface for		
	accurate impact hammer reading.		3
#16 - SLA-13L	Fair to Good Condition	Туре А	
-DB	Starting to show several very small cracks		
Structure	on top and one on side. (<1mm)		— —
High Voltage			
#17 - 13-L-B	Good Condition (46MPa)		4
Sul Hex			
Breaker			
#18 - No #	Good Condition		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Stamps Lane

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - SLA-T3-A	Good Condition (38MPa)		4
Structure High			
Voltage			
	Good Condition with exception of one	Type C	2
Structure	comer with a crack originating from		
High Voltage	anchor bolt and extending out to side.		
#21 - T4-20033	Good Condition		4
Tranformer	·		
#22 - T3-20024	Good Condition (38MPa)		4
Transformer			
#23 - SLA-08	Good Condition With only very minor		4
-DL	alligator crackin on top surface.		
Structure	42MPa.		
Low Voltage			
			
	Good Condition		4
Oil Breaker			
1	<u> </u>		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
. 4	No corrective action or maintenance required at this time	





SUBSTATION S	ITE: Stamps Lane	DATE INSPECTED: April 5,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - SLA-09-B	Good Condition		4
Oil Breaker			
#26 - SLA-09	Good Condition		4
-DL			
Structure			
Low Voltage			
#27 - SLA-10B	Good Condition		4
Oil Breaker			
#28 - SI A-T3-B	Good Condition		4
Oil Breaker	- Cook Condition		
	Maria		
#29 - SLA-T3	Good Condition		4
-B-BP	Obda Odration		
Structure			
Low Voltage			
	Good Condition		4
Structure			
Low Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	√ within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:

Stamps Lane

DATE INSPECTED: April 5,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#31 - SLA-T4-B	Good Condition with exception of one side	Type A Repair	3
Oil Breaker	where the cement sand matrix is		
	deteriorating and surface is coarse.		
	Good Condition with exception of one side	Type A Repair	3
Oil Breaker	where the cement sand matrix is		
	deteriorating and surface is coarse. (42MPa)		
#33 - SLA-11	Good Condition with exception of one side	Type A Repair	3
-DL	where the cement sand matrix is		
Structure	deteriorating and surface is coarse.		
Low Voltage	(40MPa)		
#34 - SLA-12DB	Good Condition		4
Structure	(40MPa)		
Low Voltage			
#35 - SLA-12B	Good Condition (42MPa)		4
Oil Breaker	,		
	Good Condition (39MPa)		4
Sul Hex			
Breaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	, within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



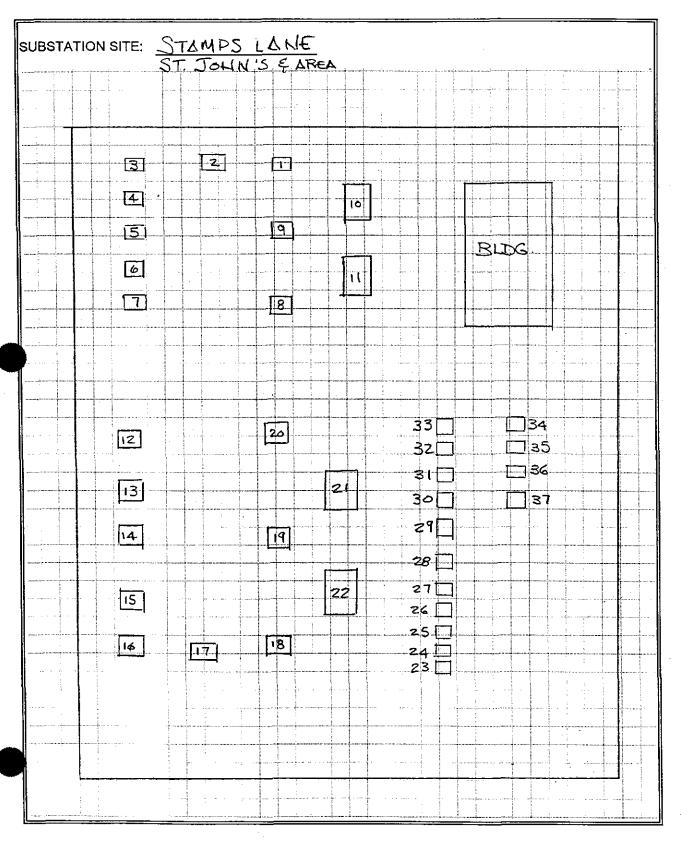


SUBSTATION	UBSTATION SITE: Stamps Lane DATE INSPECTED: April 5,2002				
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating		
#37 - SLA-13	Good Condition (40MPa)		4		
-DL					
Structure					
_ow Voltage	·				
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Priority Rating	Priority Description Immediate corrective action required	Recommended Time Frame within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











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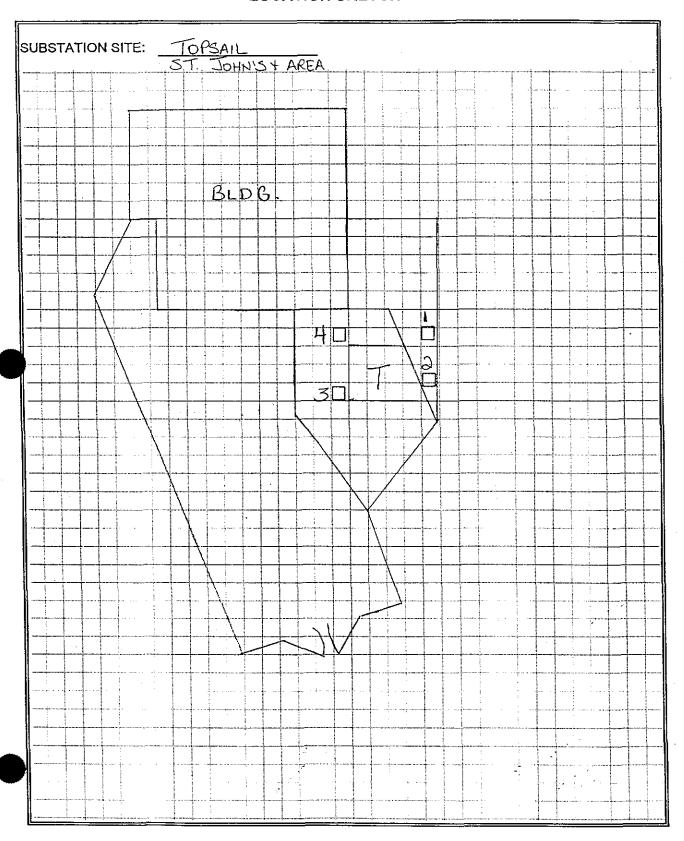
DATE INSPECTED: 12-Apr-02

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 -	Pad inspected through wire fence (no	Type E Repair (Total Replacement)	1
Structure	access). Pad is approx. 2m above ground		
Low Voltage	with cracks extending down from top of pad		
	approx. 1.2m. Severe chipping also present		
	with aggregate exposed in several areas.		
	Overall pad is in poor condition.		
#2 -	Pad inspected through wire fence (no	Type E Repair (Total Replacement)	11
Structure	access). Pad is approx. 2m above ground		
Low Voltage	with cracks extending down from top of pad		
	approx. 1.2m. Chipping also present		
	with aggregate exposed in several areas.		
	Overall pad is in poor condition (44 Mpa).		
#3 -	Minor chipping and cracking on edges of	Type B Repair	2
Structure	pad. Remainder of pad is in fair condition.		
Low Voltage			· ·
l			
#4 -	Minor scaling on top surface. Remainder		4
Structure	of pad is in good condition (44 Mpa).		
Low Voltage			
#5 - T1-	Severe chipping and cracking on top	Type D Repair	2
Transformer	surface of pad. Portions of concrete and		
	aggregate can be removed with boot.		
	Some areas on top surface are heavily		
	pitted. Overall pad is in poor condition		
	(44 Mpa).		
1			
1			

Priority Rating	Priority Description	Recommended Time Frame
1	immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·











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INSPECTION OF	CONCRETE PADS	& I COMPATIONS

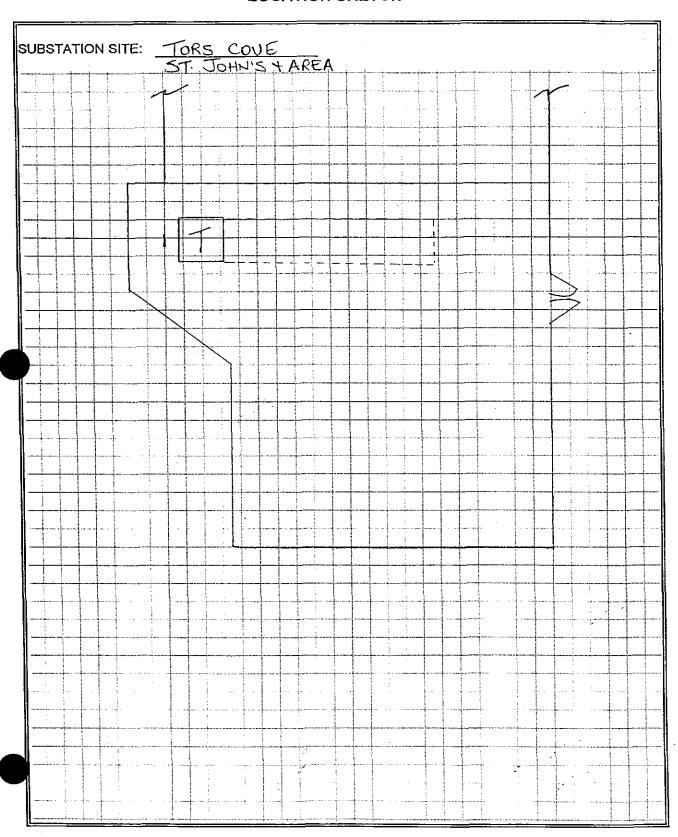
SUBSTATION SITE:	Tors Cove	DATE INSPECTED:	17-Apr-02
	St. John's & Area		

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Spill pan installed under transformer.	Type B Repair based on limited visibility	3
Transformer	Visible portion of pad shows alligator and	of concrete.	
200162	hairline cracking (24 Mpa).		7
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•











***	INSPECTION OF CONC	RETE PADS & FOUNDATIONS	
SUBSTATION	N SITE: Virginia Waters St. John's & Area	DATE INSPECTED: 10-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - VIR- 07-B Sul Hex Breaker	Good condition.		4
#2 - VIR-04 Pothead Structure	Minor pitting in several areas on top of pad. Remainder of pad is in fair c (28 Mpa).	surface Type A Repair ondition	3
#3 - VIR-05 Pothead Structure	Good condition.		4
#4 - Not In Use	Good condition.		4
#5 - Not In Use	Good condition.		4
#6 - VIR-03 Pothead Structure	Good condition (30 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION SITE: Virginia Waters DATE INSPECTED: 10-Apr-02

St. John's & Area

	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - VIR-01	Several areas on top surface of pad show	Type A Repair	3
Pothead	pitting and spalling on edges. As a result		
Structure	some aggregate is exposed. Overall pad		
	is in fair condition (28 Mpa).		
#8 - VIR-	Good condition.		4
07-BP			_
Structure			
Low Voltage			
#9 - VIR-	One minor hairline crack (less than 1mm	Type A Repair	3
04-BP	separation). Minor pitting and spalling on		
Structure	several areas of top surface of pad. Overall		
w Voltage	pad is in fair condition (42 Mpa).		
	Small amount of pitting on top surface of	Type A Repair	3
Sul Hex	pad. Remainder of pad is in good	<u> </u>	
Breaker	condition.		
#11 _ \/ID_05	Good condition.		4
Oil Circuit	Cood Sofiation.		
Breaker			
Dicarci			_
#12 - VIR-	Good condition.		4
05-BP			
Structure			
Low Voltage			
<u>L</u>	<u> </u>		<u> </u>

<u>Priorit</u>	<u>y Rating</u>	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	





	INSPECTION OF CONCRETE I	PADS & FOUNDATIONS	
SUBSTATION	N SITE: Virginia Waters	DATE INSPECTED: 10-Apr-02	
	St. John's & Area		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - \/IP-02	Minor pitting on top surface of pad.	· · · · · · · · · · · · · · · · · · ·	4
Oil Circuit	Remainder of pad is in good condition (34		
Breaker	Mpa).		
Dicaker	Nipay.		
#14 - T2-B	Good condition.		4
#14 - 12-b Oil Circuit	GOOG CONTRICTION		
Breaker			
#15 - BTS-2	Good condition (42 Mpa).		4
Structure			
ow Voltage			
		<u> </u>	
i.			
#16 - T1-D	Minor amount of pitting on top surface of	Type A Repair	3
Structure	pad. Remainder of pad is in good condition.		
Low Voltage			
#17 - T1-B	Small amounts of pitting and spalling on top	Type A Repair	3
Oil Circuit	surface and edges of pad. Overall pad is in		
Breaker	fair condition (36 Mpa).		
#18 - \/IR_0	6 Minor pitting on top surface of pad.	Type A Repair	3
Sul Hex	Remainder of pad is in good condition.		
Breaker	Tronient of Bar to 11. G		
Dicarci			
11		1	1

Priority Rating_	Priority Des <u>cription</u>	Recommended Time Frame
PHONEY RAISING	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
2	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION SITE:

Virginia Waters

DATE INSPECTED: 10-Apr-02

	St. John's & Area		T
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 -VIR-	Spalling on one comer. Remainder of pad is	Type A Repair	3
	in fair condition (42 Mpa).		
Structure			
Low Voltage			
	Small amounts of pitting on top surface.	Type A Repair	3
Oil Circuit	Remainder of pad is in good condition.		
Breaker			
#21 - VIR-01	Spalling in several areas of pad. Remainder	Type A Repair	3
	of pad is in fair condition (28 Mpa).		
⊰reaker			
			_
#22 - VIR-	Minor pitting on top surface. Remainder of	Type A Repair	3
01-BP	pad is in good condition.		
Structure		,	
Low Voltage			
#23 - T3	Good condition (32 Mpa).		4
Transformer			_]
200336			
#24 - T1	Addition was poured alongside existing	Type B Repair	3
	pad. Some minor hairline cracks on top		
	surface. Remainder of pad is in good		
	condition (28 Mpa).		7
1			

<u>Priori</u>	ty Rating	Priority Description	Recommended Time Frame
_	1.	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION SITE: Virginia Waters DATE INSPECTED: 10-Apr-02 St. John's & Area			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
25 - T2-A Structure High Voltage	Good condition.		4
¥26 - T1-A Structure ⊣igh Voltage	of pad is in good condition (34 Mpa).	Type A Repair	3
27 - Structure High Voltage	Minor spalling on top edges of pad. Remainder of pad is in good condition.	Type A Repair	3
#28 - 59L- BP Structure High Voltage	Good condition (34 Mpa).		4
#29 - 59L-B Oil Circuit Breaker	One side of pad has two areas where aggregate is exposed and paste is removed. Remainder of pad is in good condition.	Type A Repair	3
#30 - 59L- GS Structure High Voltage	One hairline crack that extends from top of pad down approx. 100mm, less than 1mm separation. Remainder of pad is in good condition (28 Mpa).	Type B Repair	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No competitive polition or maintanance required at this time	





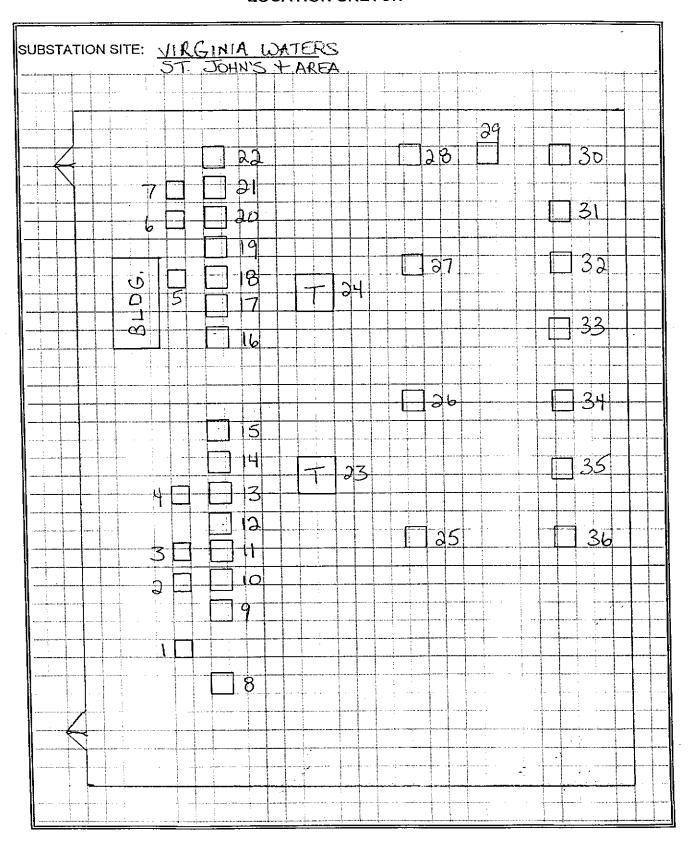
SUBSTATION SITE:	Virginia Waters	DATE INSPECTED:	10-Apr-02

	St. John's & Area		· · · · · · · · · · · · · · · · · · ·
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#31 - 74L-B	One small area of spalling. Another small	Type A Repair	3
Oil Circuit	on top of pad contains a patch of alligator		
Breaker	cracks. Remainder of pad is in fair		
	condition.		
#32 - 74L-	Pitting and spalling throughout several	Type A Repair	3
DB	areas on top surface of pad. Remainder of		
Structure	pad is in good condition (42 Mpa).		
High Voltage			
	Good condition.		4
l Circuit eaker		An area and a second a second and a second and a second and a second and a second and a second and a second and a second and a second and a second a	
#34 - 58L- GS Structure High Voltage	Good condition (42 Mpa)		4
	Good condition.		4
Oil Circuit			
Breaker			7.
#36 - 34L-	Four hairline cracks that run from midway	Type C Repair	2
GS	on each side of pad down approx. 150mm		
Structure High Voltage	long and have approx 1mm separation (42 Mpa).		
	(1-1-1-)		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







WEST AVALON

ARGENTIA BAY ROBERTS BLAKETOWN CARBONEAR CLARKE'S POND COLLIER'S **DUNVILLE** HARBOUR GRACE **HEART'S CONTENT HOLYROOD ISLINGTON NEW CHELSEA NEW HARBOUR OLD PERLICAN** PITTMAN'S POND **RIVERHEAD SPRINGFIELD TREPASSEY** UPPER ISLAND COVE **VICTORIA WESTERN AVALON**



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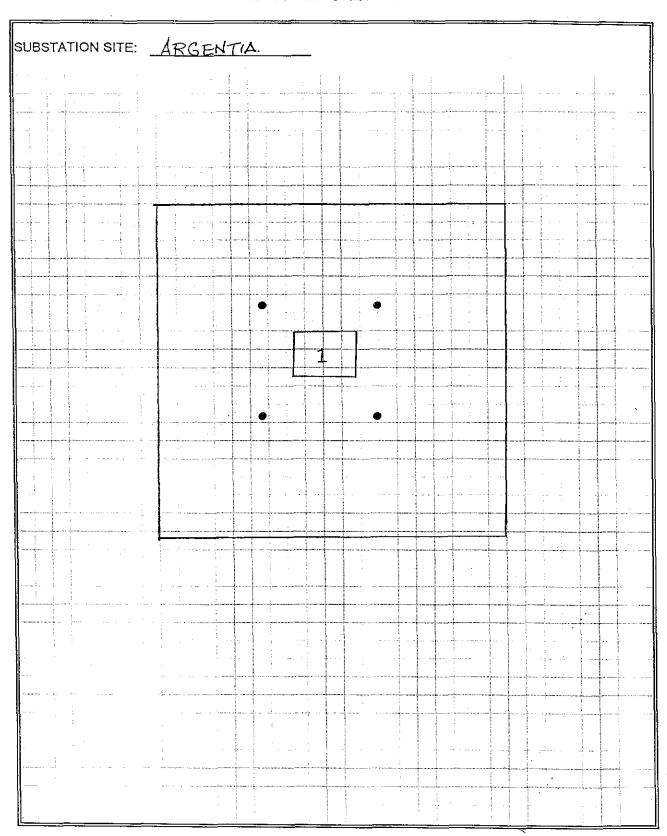


INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATION SITE: Argentia DATE INSPECTED May 10,2002				
Fdn/Pad Type & No.	General (Condition	Recommendations	Priority Rating
#1 - 200625	Good Condition. (34 M	/lpa)		4
Transformer				
<u> </u>				

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE: Bay Roberts DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - no #	Fair Condition.	Type A Repair however will eventually	2
High Voltage	Alligator cracking & some spalling/chipping	require a Type D Repair.	
	on corners. There are areas that sound		7
	hollow when the top surface was checked		7
	with impact hammer.		
#2 - No #	Fair to Poor Condition	Type D Repair	1
High Voltage	Alligator cracking & severe spalling		
	and chipping away of corners and top		7
	edges.		
	(38MPa - taken below grade)		
#3 - No #	Fair to Poor Condition	Type D Repair	1
High Voltage	Alligator cracking & severe spalling	:	<u> </u>
	and chipping away of corners and top		7
	edges.		
#4 - No #	Fair to Poor Condition	Type D Repair	1 1
High Voltage	The top surface and the top 100mm of	Type D Repair	 -
migii voitage	the sides have severe alligator cracking		
			_
	and chipping away on two comers.		_
#5 - 56L-DB	Fair to Poor Condition	Type D Repair	1
High Voltage	The top surface and the top 100mm of	175	
ingii takaga	the sides have severe alligator cracking		-
	and chipping away on two comers.		
			-
#6 - BRB-56L	<u> </u>	Type A Repair	2
-B	Two sides(above grade) and top surface		_[
Oil Breaker	are scaling.	-	
		<u> </u>	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•





SUBSTATION SITE:

Bay Roberts

DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - 56L-GS	Fair to Poor Condition	Type D Repair and Type C Repair on	1
High Voltage	The top surface and the top 100mm of	cracks if they extend below the level	_
	the sides have severe alligator cracking	of concrete removal for the type D repair.	
	and chipping away on corners.		
	There are two cracks (>1mm) across the		
	top surface. (34MPa)		
#8 - No #	Fair to Poor Condition	Type D Repair and Type C Repair on	1
High Voltage	The top surface and the top 100mm of	cracks if they extend below the level	
	the sides have severe alligator cracking	of concrete removal for the type D repair.	
	and chipping away on corners.		
	There are two cracks (>1mm) across the		[
	top surface.		
#9 - BRB-57L	Good Condition. (38MPa)		4
-B			
Oil Breaker			1
#10 - 57L-DB	Fair to Poor Condition	Type D Repair and Type C Repair on	1
High Voltage	The top surface and the top 100mm of	cracks if they extend below the level	
	the sides have severe alligator cracking	of concrete removal for the type D repair.]
	and chipping away on corners.]
	There are several cracks (>1mm) across		
	the top surface.		1
#11 - No #	Fair To Good Condition	Type В Repair	2
High Voltage	Minor alligator cracking on top surface		
	and minor crack (<1mm) on one side		1
	(36 Mpa)		1
			1
#12 - BRB-T3	Good Condition. (38 Mpa)		4
-B			
Oil Breaker			
			1
			1
			1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·





SUBSTATION SITE: Bay Roberts DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - T3-B-DT	Fair Condition.	Type D Repair	2
High Voltage	Some alligator cracking on surface and		
· · · · · ·	sides as well as several hairline cracks		
	(<1mm). One comer has concrete chipped.		
#14 - No #	Fair Condition.	Type D Repair	- 2
High Voltage	Some alligator cracking on surface and	Type D Repail	
riigii Voltago	sides as well as a number of hairline cracks		
	(<1mm). Some comer concrete chipping.		
#15 - BRB-T2		Future Monitoring	4
-B	Minor cement/sand matrix deterioration		
Oil Breaker			
#16 - T2-B-DB	Fair Condition. Some alligator cracking on surface and	Type D Repair	2
	sides as well as a number of hairline cracks		
	(<1mm). Some corner concrete chipping.		
#17 - No #	Good Condition. (36 Mpa)		4
Low Voltage			
	Good Condition (32 Mpa)		4
Recloser			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Bay Roberts	DATE INSPECTED	May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - BRB-05 -BP Low Voltage	Good Condition. (38 Mpa) Very minor alligator cracking on top surface	Future Monitoring	4
#20 - BRB-02 -B Oil Breaker	Good Condition. (38 Mpa) Very minor alligator cracking on top surface	Future Monitoring	4
#21 - BRB-03 -B Oil Breaker	Good Condition. (36 Mpa)		4
#22 - BRB-03 -DL Low Voltage	Good Condition. (38 Mpa)		4
#23 - BRB-04 -B Oil Breaker	Good Condition. (38 Mpa)		4
#24 - BRB-01 -BP Low Voltage	Good Condition. (36 Mpa)		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	, and the second



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	INSPECTION OF CONCRI	ETE PADS & FOUNDATIONS	
SUBSTATION	SITE: Bay Roberts	DATE INSPECTED May 9,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - BRB-01	Good Condition. (38 Mpa)		4
-B Oil Breaker			
HOC DOD T4	Cood Condition (25 Mpg)		4
#26 - BRB-11 -B Oil Breaker	Good Condition. (36 Mpa)		
#27 - T1-D	Good Condition. (40 Mpa)		4_
Low Voltage			
#28 - No #	Good Condition. (38 Mpa)		4
Low Voltage			
#29 - T3	Good Condition. (40 Mpa)	Type A Repair	3
200330 Transformer	Minor Spall on one corner		
#30 - T2	Good Condition. (38 Mpa)		4
200302 Transformer			

Priority Rating	Priority Description	Recommended Time Frame
1	immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Bay Roberts	DATE INSPECTED May 9,2002
SUBSTATION SITE.	Day Roberts	DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#31 - T1	Good Condition. (34 Mpa)		4
200303			
Transformer			
#32 - T1-A	Good Condition. (38 Mpa)		4
High Voltage			
#33 - T2-A	Good Condition. (36 Mpa)		4
High Voltage			
#34 - BTS-3	Good Condition. (38 Mpa)		4
High Voltage			
#35No #	Good Condition. (32MPa)	Type A Repair.	3
High Voltage	Very Minor Chipping on one comer.		
#36 - No #	Good Condition. (32MPa)	Type A Repair.	3
High Voltage	Very Minor Chipping on one corner.	Type A Repair.	<u>3</u>
· ·			

Priority Rating	Priority Description	Recommended Time Frame
1 `	Immediate corrective action required	Within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No competitive action or maintenance of a second of the last	





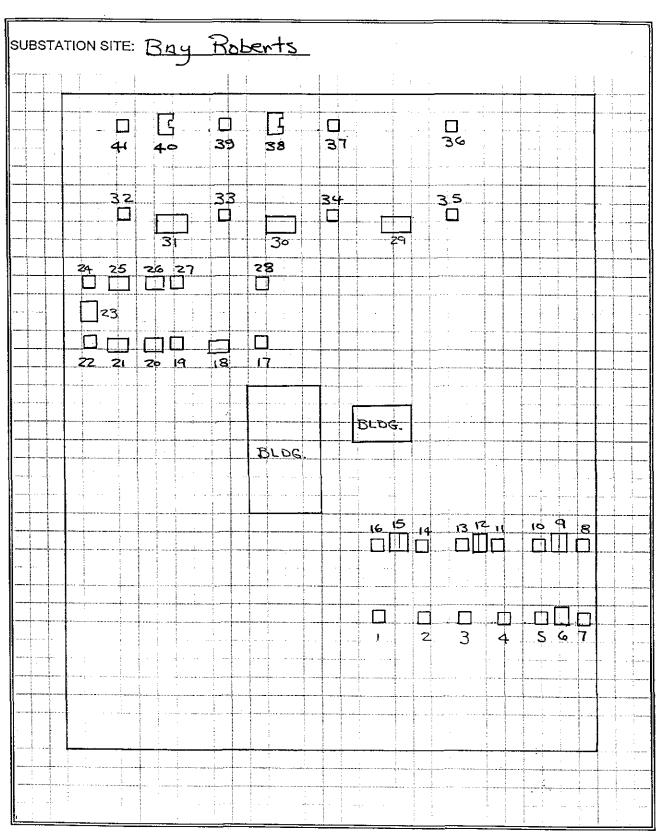
SUBSTATION SITE: Bay Roberts DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#37 - 48L-DB	Fair Condition.	Type B Repair	2
High Voltage	There are several hairline cracks (<1mm)		
	on the surface & Minor alligator cracking.		
	(36MPa)		
#38 - 48L-B	Good Condition. (38 Mpa)		4
Oil Breaker	Cood Condition (Compay		
#39 - BRB	Fair to Good Condition. (36 Mpa)	Type A Repair	3
-BTS-1	Some minor alligator cracking and		
High Voltage	cement/sand matrix deterioration on one		
	corner.		
#40 - BRB	Good Condition. (40 Mpa)		4
-39L-B			
Oil Breaker			
#41 - 39L-DL	Good Condition. (40 Mpa)		4
High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION	SITE: Blaketown	DATE INSPECTED May 10,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - BLK-02 -BK Low Voltage	Good Condition (new concrete)		4
32 - BLK-02-B Oil Breaker	Good Condition (new concrete)		4
#3 - BLK-01-B Oil Breaker	Good Condition (new concrete)		4
#4 - BLK-01 -BP Low Voltage	Good Condition (new concrete)		4
#5 - BLK-25kv -PT-JB Low Voltage	Good Condition (new concrete)		4
#6 - BLK-T2-D Low Voltage	Good Condition (new concrete)		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





j	MOFECTION OF CONCR	LIL FADS & FOUNDATIONS	
SUBSTATION	SITE: Blaketown	DATE INSPECTED May 10,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - BLK-T2-D Low Voltage	Good Condition (new Concrete)		4
#8 - BLK-T2 -P-296 200296 Transformer	Good Condition. (38 Mpa)		4
#9 - BLK-48L -DL High Voltage	Good Condition. (38MPa)		4
#10 - BLK -BTS-2 High Voltage	Good Condition. (38MPa)		4
#11 - No # High Voltage	Good Condition (38MPa)		4
#12 - T3-P314 Transformer	Good Condition. (40 Mpa)		4

Priority Rating	Priority Description	_Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Blaketown	DATE INSPECTED May 10,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - BLK-T3	Fair to Good Condition. (32 Mpa)	Future Monitoring	4
-A	Appears to have had a top replacement		
High Voltage	some years ago. The has some minor		
	cement/sand matrix deterioration.		
#14 - BLK-64L	Fair to Good Condition. (36 Mpa)	Future Monitoring	4
-GS	The exposed surfaces has some minor		
High Voltage	cement/sand matrix deterioration resulting		
	in coarse surface appearance.		
#15 -BLK-64L	Fair to Good Condition. (36 Mpa)	Future Monitoring	4
-B	The exposed surfaces has some minor		
Oil Breaker	cement/sand matrix deterioration resulting		
	in coarse surface appearance.		
#16 - BLK-64L	Fair Condition. (34MPa)	Type B Repair	2
-DL	There are numerous alligator cracks on		
High Voltage	the sides & several hairline cracks (<1mm)		
	Extending outward from the middle of the		
	top surface.		
#17 - BLK-48L	Fair to Good Condition. (36 Mpa)	Future Monitoring	4
-B	The exposed surfaces has some minor		
Oil Breaker	cement/sand matrix deterioration resulting		
	in coarse surface appearance.		
	Good Condition. (new concrete)		4
-DB			
High Voltage			
		<u> </u>	· L

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Blaketown	DATE INSPECTED May 10,2002
		

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - BLK	Fair to Good Condition (new concrete)	Type B Repair	3
-66kv-PT-JB	One small crack (<1mm) starting to		
High Voltage	develop from one anchor bolt outward to		
	side.		
#20 - BLK-T3	Good Condition. (new concrete)		4
-B			
Oil Breaker			
#21 - BLK-T3	Good Condition. (new concrete)		4
-D			
High Voltage			
	Good Condition. (new concrete)		4
-B			
Oil Breaker			
#23 - BLK-80L	Good Condition. (new concrete)		4
-GS			
High Voltage			
#0.4 PLIK 601			
#24 - BLK-86L -B	Good Condition. (new concrete)		4
-¤ Oil Breaker			
Oil Bleaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



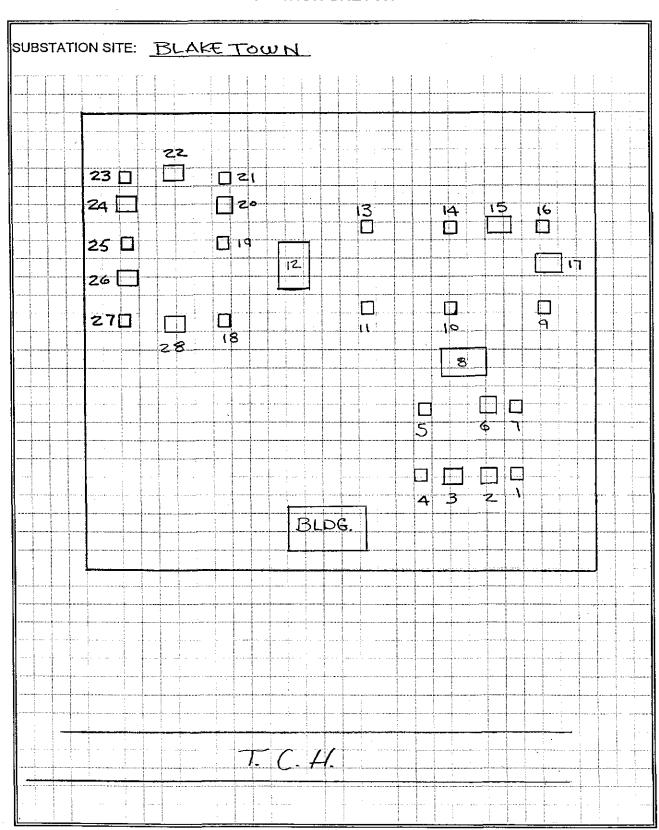


SUBSTATION	SITE: Blaketown	DATE INSPECTED May 10,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good Condition. (new concrete)		4
-GS -ligh Voltage			
iigii voitage			
‡26 - BLK-94L	Good Condition. (new concrete)		4
-B			
Oil Breaker			
	Good Condition	Type B Repair	3
-G\$	Ther are two very minor hairline cracks starting to develop from two anchor bolts		
High Voltage	outward to the sides.		
#10 DIVEE	Good Condition. (new concrete)		4
<u>#26 - BER-33E</u> -B	Good Condition: (new consists)		
Oil Breaker			
			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











Fdn/Pad Type & No.	General Condition	Recommendations	Priorit Ratin
#1 - No # _ow Voltage	Good Condition. (32MPa)		4
‡2 - No #	Good Condition		4
Not in Use			
#3 - CAR-04 -R Recloser	Good Condition, (34MPa)		4
#4 - CAR-04 -DL Low Voltage	Good Condition. (44MPa)		4
#5 - CT-539	Good Condition. (34MPa)		4
#6 - CAR-03 -R Recloser	Good Condition. (42MPa)		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Carbonear	DATE INSPECTED May 9,	,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - CAR-02	Good Condition. (40MPa)		4
-DL			
Low Voltage			
#8 - CAR-02	Good Condition. (42MPa)		4
#0 - CAR-02 -R	Good Condition. (42MPa)		
Recloser			
#9 - Car-01	Good Condition.(38MPa)		4
-R			<u> </u>
Recloser			
	- Aller		
#10 - CAR-01	Good Condition. (38MPa)		4
-BP			
Low Voltage			
#11 - T1	Fair to Good Condition. (46MPa)	Type B Repair	3
-P333	There are two hairline cracks (<1mm)		
Transformer	across the top surface.		·
	There appears to have been some repair		
	work done to the surface recently.		
#12 - 56L-DB	Good Condition. (36MPa)		4
High Voltage			
		•	-

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Carbonear	DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - 56L	Poor Condition.	Type E Repair. (total replacement)	1
Oil Breaker	There is a major crack(>1mm) extending		
	across the pad & horizontially the length		
	of the pad. The crack extends at least		
	to a depth of 500mm into the pad.		
#14 - 68L-DB	Good Condition. (40MPa)		4
High Voltage			_
#15 - 68L-B	Good Condition. (42MPa)		4
Oil Breaker			
#16 - BTS-1	Good Condition. (42MPa)		4
High Voltage			
#17 - 41L-B	Good Condition. (40MPa)		4
Oil Breaker			
#18 - 41L-DL	Fair Condition.	Type A Repair	3
High Voltage	The top edge along one side of the pad is	125.7.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	
	chipped away.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





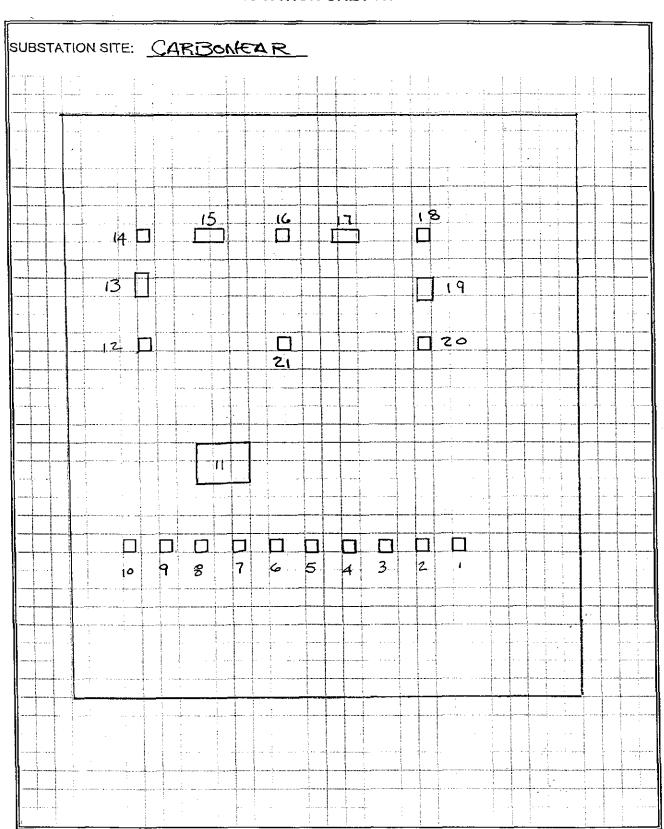
	SUBSTATION SITE: Carbonear DATE INSPECTED May 9,2002			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#19 - 40L-B Oil Breaker	Good Condition. (40MPa)		4	
#20 - 40L-DL High Voltage	Good Condition. (40MPa)		4	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•



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Clarke's Pond

DATE INSPECTED: 19-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - CLK-	Pitting on top surface of pad resulting in	Type A Repair	2
03-BP	areas where aggregate is exposed.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Structure	Remainder of pad is in good condition		
Low Voltage			
#2 - CLK-	Alligator cracking throughout top surface	Type D Repair	1
03-R	of pad. Minor scaling and pitting also		
Recloser	present throughout top surface of pad.		
	Lower section of pad seems to be in good		
	condition (44 Mpa).		
#3 -	Spalling on three comers of pad. Pitting	Type A Repair	2
3tructure	also present on top surface of pad to a		
v Voltage	degree that aggregate can be removed		
	with boot (26 Mpa).		
#4 - Not In	Alligator cracking throughout top surface	Type D Repair	1
Use	of pad. Minor scaling and pitting also	Typo D (topun	
030	present throughout top surface of pad.		
	Lower section of pad seems to be in good		
	condition (54 Mpa).		
#5 - CLK-	Spalling on one comer and one edge of pad	Type A Repair	2
01-BP	Affected to a depth of approx. 150mm so		
Structure	that aggregate is exposed and can be		
Low Voltage	removed with boot (28 Mpa).		
			,
#6 - CLK-	Alligator cracking throughout top surface	Type D Repair	1
01-R	of pad. Minor scaling and pitting also		
Recloser	present throughout top surface of pad.		
	Lower section of pad seems to be in good		. ,
	condition (48 Mpa).		

<u>Prio</u>	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	





SUBSTATIO	N SITE: Clarke's Pond West Avalon	DATE INSPECTED: 19-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - CLK- 02-BP	Spalling on one corner and one edge of pad Affected to a depth of approx. 150mm so	Type A Repair	2
Structure	that aggregate is exposed and can be		
	removed with boot (28 Mpa).		
#8 - CLK-	Minor scaling on top surface of pad.		4
04-R1 Recloser	Remainder of pad is in good condition (28 Mpa).		
#9 - CLK- `4-BP	Good condition (28 Mpa).		4
structure Low Voltage			
#10 - Not In	Minor pitting and scaling on one area of	Type A Repair	3
Use	pad. Remainder of pad is in good condition (28 Mpa).		
#11 -	Spalling and flaking on all comers of pad.	Type A Repair	1
Structure	Some areas of pitting and eroding present with some areas of exposed aggregate that can be removed with boot (38 Mpa).		
#12 -	Top surface of pad has rough finish with		4
Structure Low Voltage	minor pitting and scaling, otherwise pad is in good condition (34 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Clarke's Pond	DATE INSPECTED:	19-Apr-02

		_	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - T1-D	One corner and edge eroded away (approx.	Type A Repair	1
Structure	300mm long to a depth of approx. 38mm).		
Low Voltage	Rough finish on top surface of pad with		
	minor pitting throughout. Exposed		<u></u>
	aggregate can be removed with boot		
	(32 Mpa).		
#14 -	One corner and edge eroded away (approx.	Type A Repair	2
Structure	200mm long to a depth of approx. 30mm).		
Metering	Remainder of surface has rough finish		
Box	but is in good condition (28 Mpa).		
#15 -	One corner and edge eroded away (approx.	Type A Repair	2
`tructure	200mm long to a depth of approx, 30mm).		-
tering	Remainder of surface has rough finish		
-ank	with minor scaling (34 Mpa).		
Cabinet			
#16 - T2-D	Spalling on one corner of pad. Remainder	Type A Repair	1
Structure	of top surface of pad is affected by pitting	Type A Repair	
			-,
Low voltage	and scaling to an approx depth of 13mm.		
	Lower portion of pad seems to be okay		
	(20 Mpa).		
#17 -	Good condition (28 Mpa).		4
Structure			
Low Voltage			
#18 - T1	Spill pan installed under transformer.		
	No concrete visible to make assessment	<u> </u>	
200223	of condition of pad.		
	1		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





The SGE Group inc.

INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION SITE:

Clarke's Pond West Avalon

DATE INSPECTED: 19-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
19 -	Three corners of pad have spalling evident	Type A Repair	2
	one of these corners is severe. Pitting and		
	scaling is also present throughout top		·
	surface of pad (22 Mpa).		
	Spalling and eroding on one corner and	Type A Repair	2
Structure	edge of pad. Aggregate is exposed and		
	portions of concrete can be removed with		
	boot (24 Mpa).		
¥21 -	Spalling and eroding on one comer and	Type A Repair	2
Structure	edge of pad. Aggregate is exposed and		
High Voltage	portions of concrete can be removed with		
	boot (32 Mpa).		
"00 TO A	One advented not of side is spoiled and	Type A Repair	2
#22 - T2-A	One edge and part of side is spalled and	Туре Атсерии	
Structure	eroded away with some aggregate		
High Voltage	exposed. Some areas on top surface of		
	pad are pitted and also has minor scaling		
	(30 Mpa).		· ·
#23 - CLK-	Spalling and eroding on one corner and	Type A Repair	2
55L-DB	edge of pad. Aggregate is exposed and		
Structure	portions of concrete can be removed with		
	boot (34 Mpa).		
g volkage			
	Good condition (28 Mpa).		4
55L-B			
Oil Circuit			
Breaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years

No corrective action or maintenance required at this time

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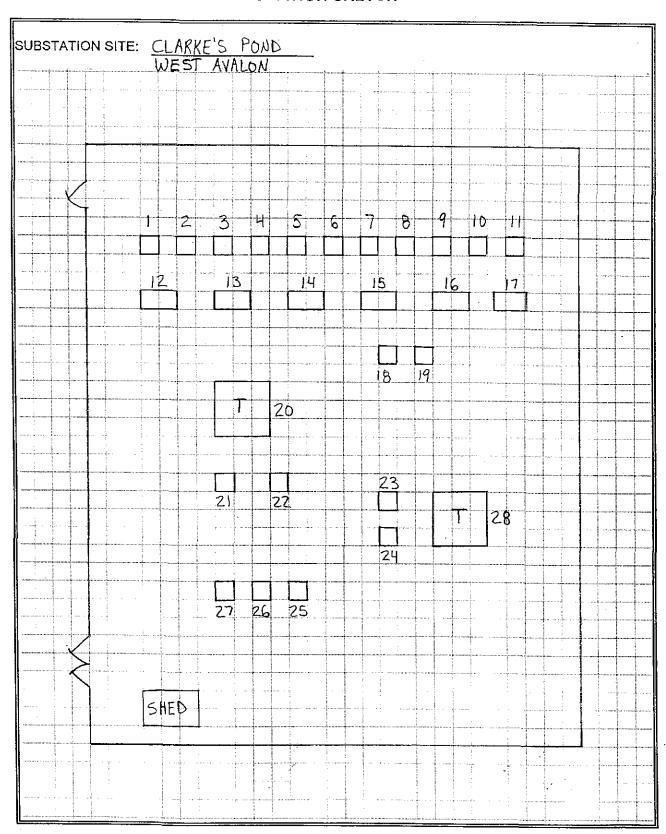


SUBSTATIO	N SITE: Clarke's Pond West Avalon	DATE INSPECTED: 19-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - CLK- 55L-BP	Spalling and eroding on one corner and edge of pad. Aggregate is exposed and	Type A Repair	2
Structure High Voltage	portions of concrete can be removed with boot (30 Mpa).		
#26 - T2 Transformer (Out For Repair)	Spill pan installed. Visible portion of pad shows signs of pitting and erosion.	Type A Repair - Based on limited amount of concrete exposed.	2
			\dashv

ority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









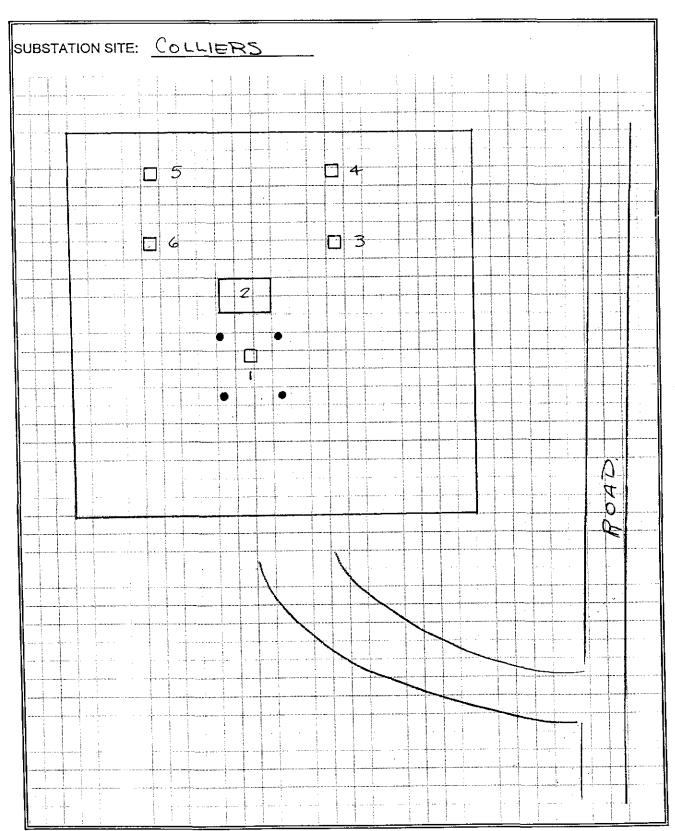


Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good Condition. (30 Mpa)		4
Recloser			
			
#2 - P-346	Good Condition. (32 Mpa)	Type A Repair	3
Transformer	Appears to have been a cap (150mm)		
	placed on top of existing concrete to		
1	bring up elevation. There are two areas in		
· -	the newer concrete where there is some		
200	honeycombing.		
#3 - No #	Good Condition (32 Mpa)	_	_ 4
High Voltage			
P			
!			
	white the state of	 	
#4 No#	Good Condition (24 Mac)		4
#4 - No #	Good Condition (34 Mpa)		
High Voltage	ļ	-	
			——
#5 - COL-39L	Good Condition (30 Mpa)	_	4
#5 - COL-39L -A4	Cood Condition (So Wipa)	+	-
-A4 High Voltage			
riigii voitage			
			——
	-		
#6 - COL-39L	Good Condition (32 Mpa)	1	4
-A3	\F-7/		
High Voltage			
g conage			
			—-
1			1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











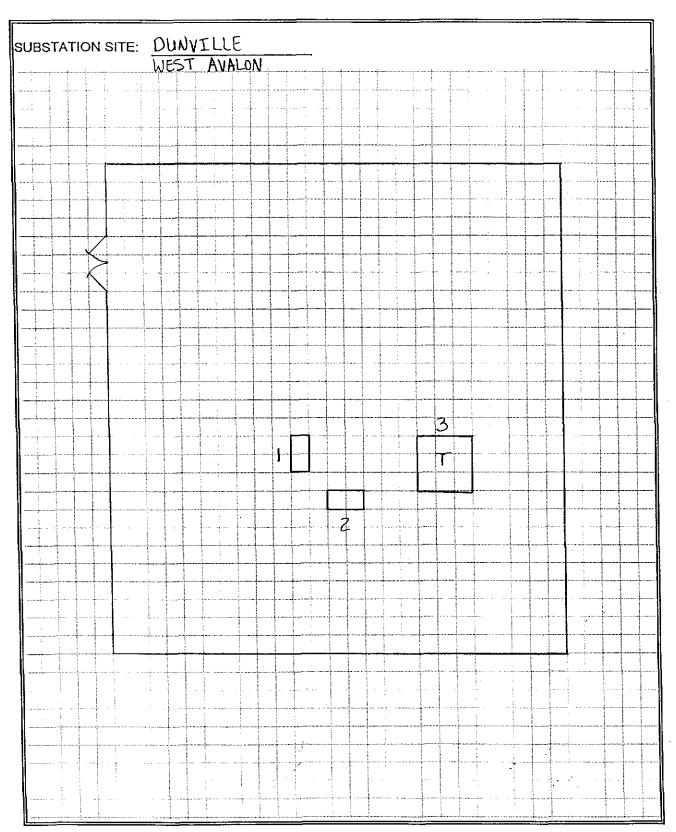
SUBSTATION SITE:	Dunville	DATE INSPECTED:	19-Apr-02	

	West Avalon		T
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - DUN-	Good condition (23 Mpa).		4
01-R			
Recloser] .
			-
			-
#2 - DUN-	Good condition (34 Mpa).		4
02-R			_
Recloser			-
			-
			-
#3 - T1	Minor spalling and chipping on two corners	Type A Repair	3
#3 - II	of pad. Otherwise pad is in good condition	Type A Repair	
200328	(30 Mpa).	•	
200320	(00 Nipa).	*	┪
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
_ 2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











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Harbour Grace

DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - HGR-01-R	Good Condition. (40MPa)		4
Recloser			
100 00 0	E-1-0	T	
	Fair Condition . (30MPa)	Type A Repair	2
Recloser	The surface has severe scaling (approx.		
	20mm deep)		
#3 - HGR-57L	Fair to Good Condition. (34MPa)	Type A Repair	2
-В	One side of the pad has the top edge		
)il Breaker	starting to chip away.		
#4 No.#	Fair to Poor Condition.	Not a serve and day he wood assis	
#4 - No # Not in Use		Not recommended to be used again.	
Not in Use	The corners are chipped away and a	 -	
	couple of the sides has sever chipping		
	damage.		
#5 - 200219	Poor Condition. It appears that there have	Type E Repair. A total replacement of this	1
Transformer	been a top replacement on this pad some	pad would be recommended.	
	time ago (top 150mm). This top is now in		
	a very deteriorated condition with severe		
	cracks and scaling.		
#6 - HRG-68L	Poor Condition. The surface has severe	Type D Repair	2
-B	scaling as well as the top 50mm along		
Oil Breaker	the sides.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



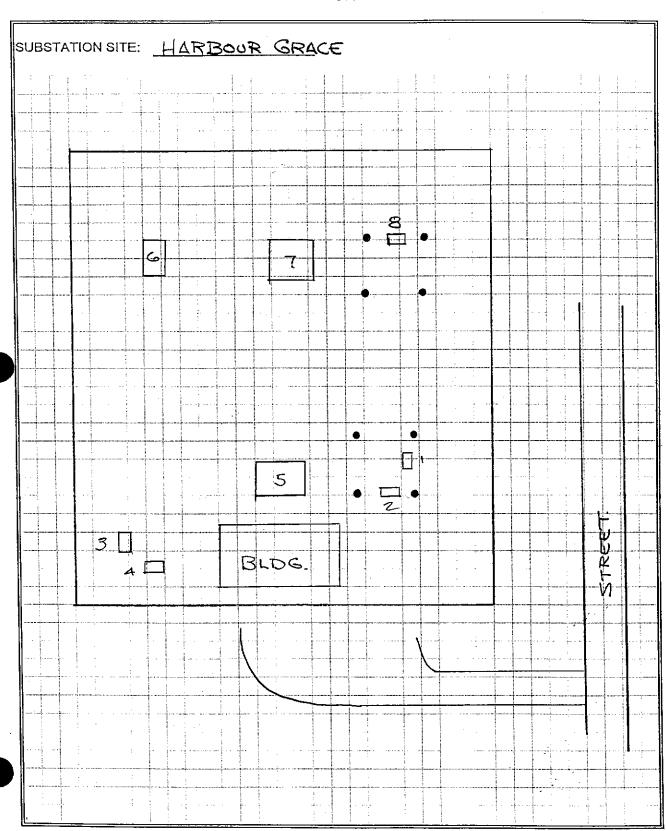


	INSPEC.	TION OF CONCRE	TE PADS & FOUNDATION	S
SUBSTATION	SITE: <u>Ha</u>	rbour Grace	DATE INSPECTED May 9,2002	
Fdn/Pad Type & No.	G	ieneral Condition	Recommendations	Priority Rating
#7 - 200229 Transformer	Good Condition	on.(38MPa)		4
#8 - HGR-02 Recloser	Good Conditi	on (42MPa)		4

Priority Rating	Priority Description	Recommended Time Frame	
1	Immediate corrective action required	within 1 year	
2 /	Corrective action required to avoid increasing costs to repair	within 3 years	
3	General maintenance item	within 5 years	
4	No corrective action or maintenance required at this time		











SUBSTATION SITE:	Hearts Content	DATE INSPECTED:	18-Apr-02	
•	West Avalon			

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - HCT-	Minor scaling on top surface of pad.		4
11L-BP	Remainder of pad is in good condition		
Structure	(22 Mpa).		
High Voltage	· · · · · · · · · · · · · · · · · · ·		
#2 - HCT-	Pad has an addition to original pad. Minor		4
41L-B	pitting on top surface (20 Mpa).		
Sul Hex			-
Breaker			-
#3 - HCT-	Top surface of pad has rough finish with		4
41L-DB	some minor pitting, otherwise pad is in		_
Structure	good condition (28 Mpa).		
. łigh Voltage			
#4 - HCT-	Top surface of pad has rough finish with		4
16L-DL	minor pitting and chipping. Remainder of		
Structure	pad is in good condition (28 Mpa).		
High Voltage			
#5 - HCT-	Top surface of pad has scaling, chipping,	Type A Repair	3
43L-B	and pitting with some areas of exposed		
Sul Hex	aggregate (40 Mpa).		_
Breaker			
#6 - HCT-	Top surface of pad has rough finish with		4
43L-DB	some minor scaling. Remainder of pad is		_
Structure	in good condition (42 Mpa).		
High Voltag	е		_

Priority Rating	Priority <u>Description</u>	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•



SUBSTATION	N SITE: Hearts Content West Avalon	DATE INSPECTED: 18-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
‡7 - Structure High Voltage	Good condition (40 Mpa).		4
	Spill pan installed under transformer. No portions of concrete visible to make an assessment.		
#9 - HCT- T3-A Tructure h Voltage	One corner of pad is chipped away (approx. 150mm) some pitting on top surface of pad. Minor cracking also present on pad (30 Mpa).	Type A Repair	3
#10 - HCT- BTS-1 Structure High Voltage	Good condition (38 Mpa).		4
#11 - Structure High Voltage	Good condition (34 Mpa).		4
#12 - Structure High Voltage	Minor pitting and scaling on top surface of pad. Remainder of pad is in good condition (44 Mpa).	Type A Repair	3

<u>Prio</u>	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Hearts Content	DATE INSPECTED:	18-Apr-02
COBOTATION CO.	West Avalon		

	West Avalon		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Minor scaling on top surface of pad. Slight	Type A & B Repair	3
	alligator cracking on two sides of pad		
ligh Voltage	(44 Mpa).		
	Good condition (24 Mpa).		4
BOL-DL			
Structure High Voltage			
#15 - 80L-B	Minor scaling and pitting on top surface of	Type A Repair	3
Oil Circuit reaker	pad (42 Mpa).		
#16 - Structure	Rough finish on top surface of pad, also top surface has pitting and alligator	Type A & B Repair	2
High Voltage	cracking in several areas (20 Mpa).		
#17 -	Good condition (28 Mpa).		4
Structure			
High Voltage			
#18 - T1	Spill pan installed under transformer.		4
Transformer 200094	Visible portion of pad seems to be in good condition (35 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
•	No corrective action or maintenance required at this time	

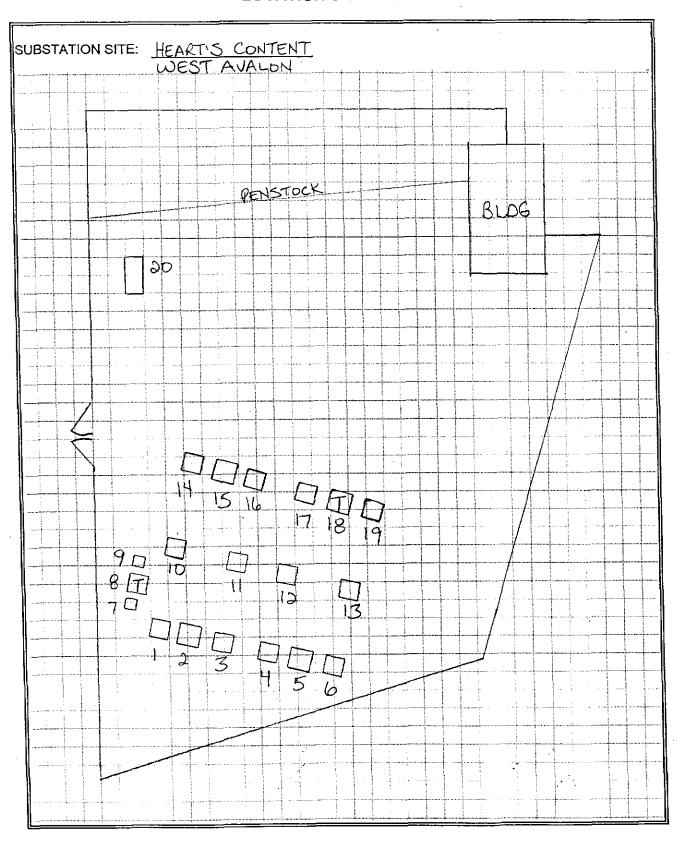




SUBSTATIO	N SITE: Hearts Content West Avalon	DATE INSPECTED: 18-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
T1-A Structure High Voltage		Type A & B Repair	3
#20 - HCT- 01-R Recloser	Good condition (42 Mpa).		4

<u>Pı</u>	riority Rating	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	









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	CONCRETE PADS	_	
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	OUIONE LE L'ADO	•	

SUBSTATION SITE:	Holyrood	DATE INSPECTED:	15-Apr-02

#2 - HOL- Top surface of pad has rough finish with Type A Repair 39L-A2-GS aggregate exposed in several areas. Three Structure corners of pad are chipped/eroded away	
Structure High Voltage #2 - HOL- Top surface of pad has rough finish with Type A Repair 39L-A2-GS aggregate exposed in several areas. Three Structure corners of pad are chipped/eroded away High Voltage There is also scaling on the top surface of	Priority Rating
Structure High Voltage #2 - HOL- Top surface of pad has rough finish with Type A Repair 39L-A2-GS aggregate exposed in several areas. Three Structure corners of pad are chipped/eroded away High Voltage There is also scaling on the top surface of	4
#2 - HOL- Top surface of pad has rough finish with Type A Repair 39L-A2-GS aggregate exposed in several areas. Three Structure corners of pad are chipped/eroded away High Voltage There is also scaling on the top surface of	
#2 - HOL- Top surface of pad has rough finish with Type A Repair 39L-A2-GS aggregate exposed in several areas. Three Structure corners of pad are chipped/eroded away High Voltage There is also scaling on the top surface of	
39L-A2-GS aggregate exposed in several areas. Three Structure corners of pad are chipped/eroded away High Voltage There is also scaling on the top surface of	
Structure corners of pad are chipped/eroded away High Voltage There is also scaling on the top surface of	2
High Voltage There is also scaling on the top surface of	
l lood (42 Mpc)	
pau (42 Mpa).	
#3 - HOL- Minor alligator cracking is present Type B Repair for cracks & Type A R	air 2
39L-A1-GS throughout top surface of pad. One comer for chipped areas	
Structure is chipped. Lower portion of pad seems to	
gh Voltage be okay (46 Mpa).	
#4 - HOL- Alligator cracking throughout top surface Type B repair	2
T1-HGS of pad. Remainder of pad seems to be in	
Structure fair condition (50 Mpa).	
High Voltage	\exists
#5 - T1 Alligator cracking and associated hairline Type C Repair	1
Transformer cracking throughout top surface of pad.	
200306 Cracks extend down approx 150mm with a	
separation of 1-2mm. Portions of pad have	
potential to separate from pad (34 Mpa).	
#6 - HOL- Minor alligator cracking throughout top Type B Repair for cracks & Type A R	air 3
T1-D surface of pad. One corner of pad is for chipped areas	
Structure chipped (46 Mpa).	
Low Voltage	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
lacksquare	No corrective action or maintenance required at this time	



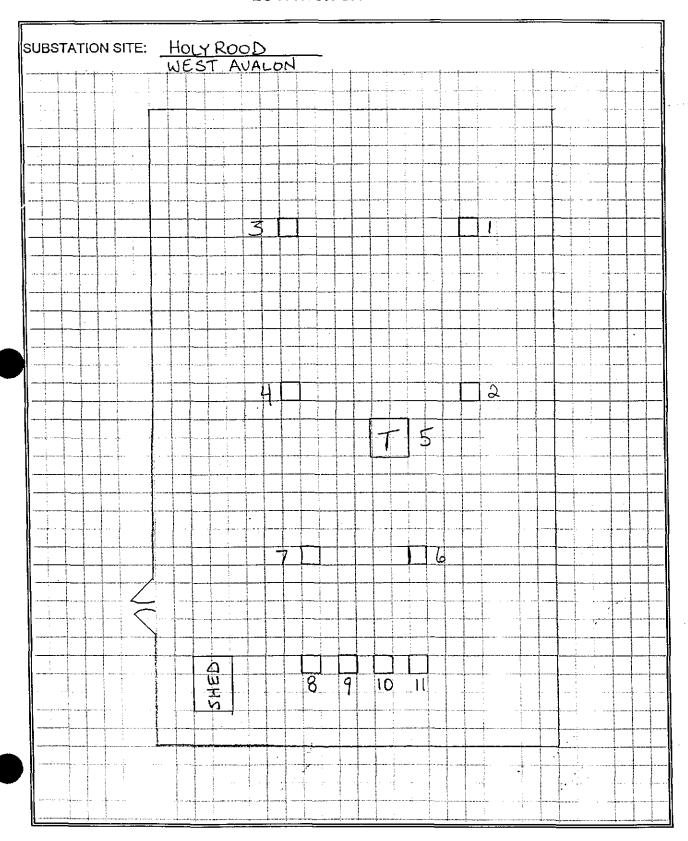


SUBSTATION	I SITE: Holyrood West Avalon	DATE INSPECTED: 15-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
4 7 -	Good condition (46 Mpa).		4
Structure			1
Low Voltage			-
	Good condition (44 Mpa).		4
02-DL			4
Structure			4
Low Voltage			4
#9 - HOL-	Four hairline cracks on top of pad (less	Type B Repair for cracks & Type A Repair	2
02-R	than 1mm separation). There is one area	for spalled area	-
Recloser	on edge of pad that is spalled away		-
	leaving aggregate exposed (approx. 300mm		4
	long). Remainder of pad is in fair condition		-
	(36 Mpa).		4
#10 - HOL-	Minor scaling and rough finish on top		-
01-R	surface of pad. Remainder of pad is in		-
Recloser	good condition (22 Mpa).	·	
			-
#11 - HOL-	Minor scaling on top surface of pad,	Type A Repair	
01-BP	otherwise pad is in good condition		4
Structure	(42 Mpa).		4
Low Voltage			
			<u> </u>
			<u> </u>
			_
1			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









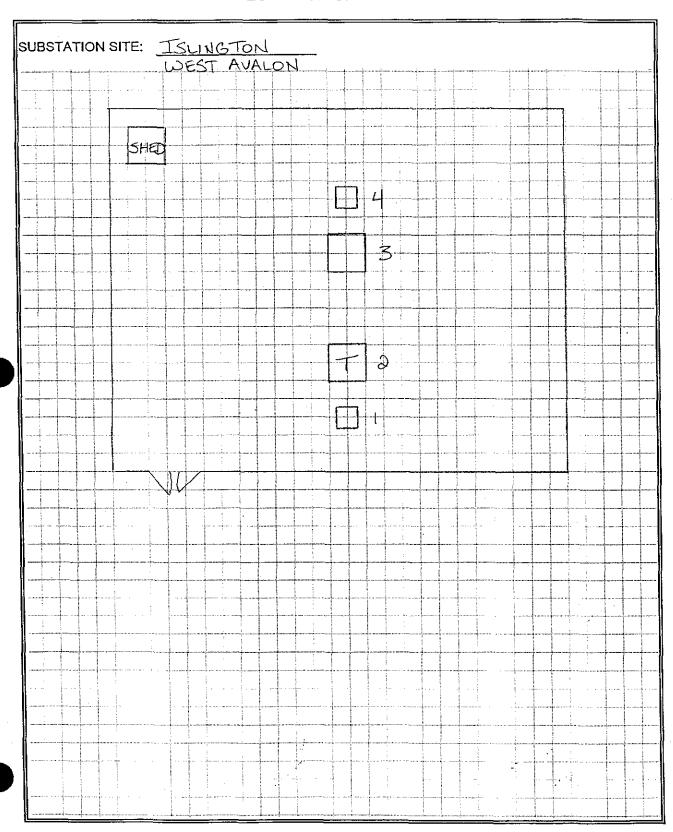


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	N SITE: Islington West Avalon	DATE INSPECTED: 18-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - ISL- 01-R Recloser	Good condition (42 Mpa).		4
#2 - T1	Good condition (24 Mpa).		4
Transformer 200090			
#3 - Not In Use	Good condition.		4
#4 - Not In Use	One area of pad has some pitting with some aggregate exposed, remainder of pad is in good condition.	Type A Repair	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATION	N SITE: New Chelsea C	DATE INSPECTED: 18-Apr-02		
	yvest Avaion			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#1 -	Top surface has rough finish, otherwise		4	
Structure	pad is in good condition (38 Mpa).			
High Voltage				
			4	
#2 -	Good condition (24 Mpa).			
Structure				
High Voltage				
#3 - T2-D	Good condition (44 Mpa).		4	
`tructure				
, ligh Voltage		and the same of th		
#4 - T2-B	Rough finish on top surface of pad,		4	
Oil Circuit	otherwise pad is in good condition (38 Mpa)			
Breaker				
#5 -	Rough finish on top surface of pad, one		4	
Structure	area of minor pitting, remainder of pad is			
High Voltage	e in good condition (34 Mpa).			
#6 -	Rough finish on top surface of pad. One	Type B Repair	3	
Structure	minor hairline crack also present.			
High Voltag				
	(26 Mpa).			
13	· · · · · · · · · · · · · · · · · · ·	1	1	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION	N SITE: New Chelsea West Avalon	DATE INSPECTED: 18-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Rough finish on top surface of pad, otherwise pad is in good condition (40 Mpa)		4
#8 - T3 Transformer 200008 200009 200010	Above ground structure supporting transformers.		
#9 - 65L-GS Structure h Voltage	Good condition (40 Mpa).		4
#10 - 65L-B Oil Circuit Breaker	Good condition (34 Mpa).		4
#11 - 65L-BP Structure High Voltage	Good condition (42 Mpa).		4
#12 - Structure High Voltage	Minor scaling on top surface of pad. Remainder of pad is in fair condition (30 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	*



SUBSTATION SITE: New Chelsea DATE INSPECTED: 18-Apr-02
West Avalon

	West Avalon		<u> </u>
Fdn/Pad 「ype & No.	General Condition	Recommendations	Priority Rating
	Spill pan installed under transformer.		4
	Visible area of pad seems to be in good		
200252	condition (34 Mpa).		
			4
1 14 -	Rough finish on top surface of pad.		
Structure	Otherwise pad is in good condition		
High Voltage	(30 Mpa).		
#15 -	Minor pitting on top surface, also top	Type A Repair	3
13L-DB	surface has rough finish. Remainder of		
Structure	pad is in good condition (34 Mpa).		
High Voltage			
#16 - 43L-B	Minor pitting on top surface, also top	Type A Repair	3
Oil Circuit	surface has rough finish. Remainder of		
Breaker	pad is in good condition (28 Mpa).		
#17 -	Minor pitting on top surface, also top	Type A Repair	3
#17 - 43L-BP	surface has rough finish. Remainder of		
Structure	pad is in good condition (34 Mpa).		
High Voltage			
#18 - NCH-	Minor pitting in one area of top surface of	Type A Repair	3
44L-R	pad, top of pad also has rough finish with		
Recloser	some aggregate exposed (34 Mpa).		

Priority Rating	Priority <u>Description</u>	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



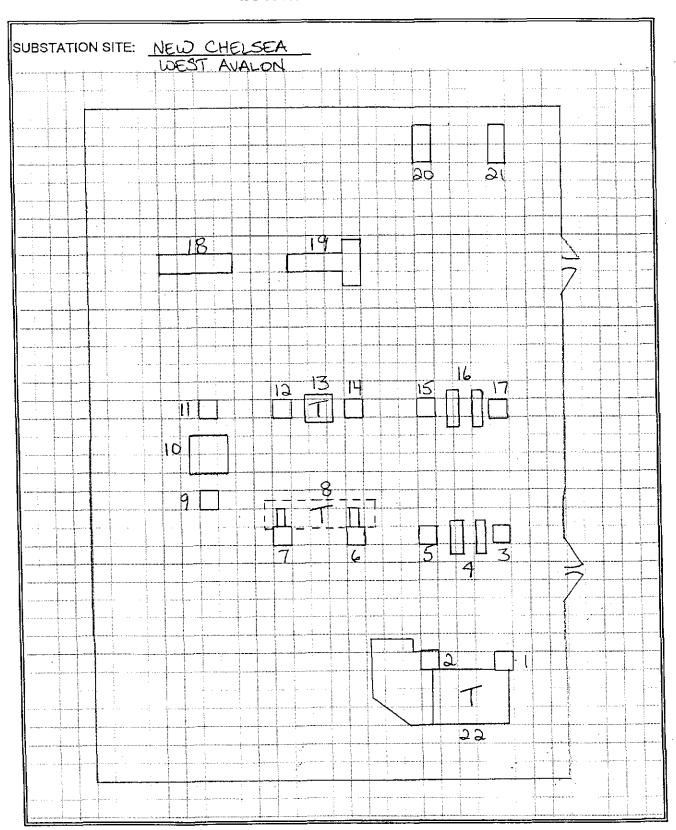
SUBSTATION SITE:	New Chelsea	DATE INSPECTED:	18-Apr-02	
	West Avalon			

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - NCH-	One section of pad has minor alligator	Type B Repair for cracks & Type A for	2
01 & 02-R	cracking and minor hairline cracking	other areas of pitting	
Reclosers	(44 Mpa). Other area of pad has two small		
	areas of pitting and top surface has rough		
	finish.		
#20 -	Good condition (40 Mpa).		4
43L-PT			
Structure			
High Voltage			
#21 -	One area on top surface of pad has some	Type A Repair	3
3L-PT	pitting with some aggregate exposed.		
ucture	Remainder of pad is in good condition		
i⊣igh Voltage	(24 Mpa).		
#22 - T2	Spill pan installed under transformer.		4
	Visible portion of concrete pad seems to be		_
200253	in good condition (28 Mpa).		
			_
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









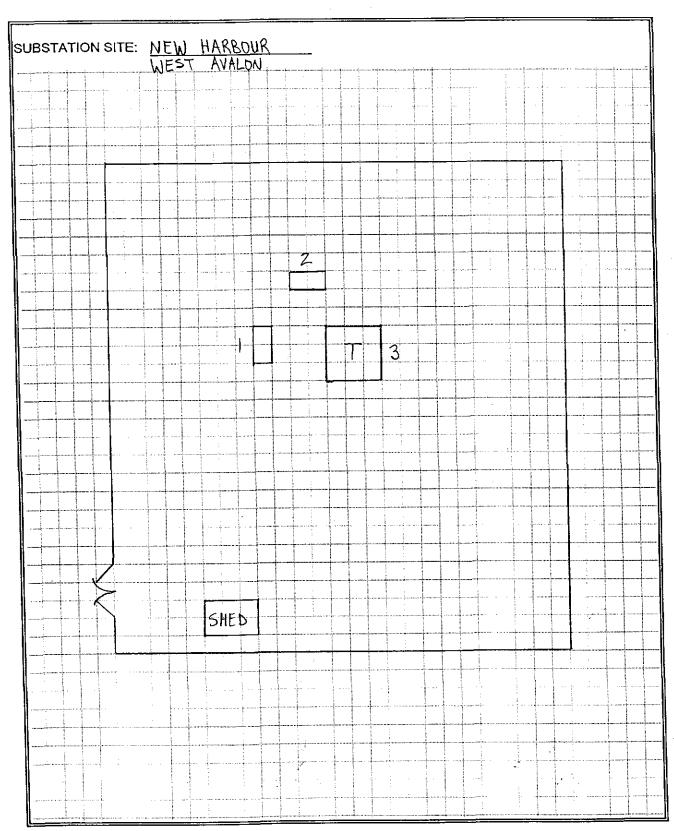


SUBSTATIO	N SITE: New Harbour	DATE INSPECTED: 19-Apr-02	
	West Avalon		· ·
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - NHR-	Good condition (42 Mpa).		4
02-R			
Recloser			
			—- ∤
#2 - NHR-	Good condition (38 Mpa).		4
01-R	, ,		
Recloser			
			4
#3 - T1-	Good condition (34 Mpa).		
Transformer			
200247			
	-		
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11			1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









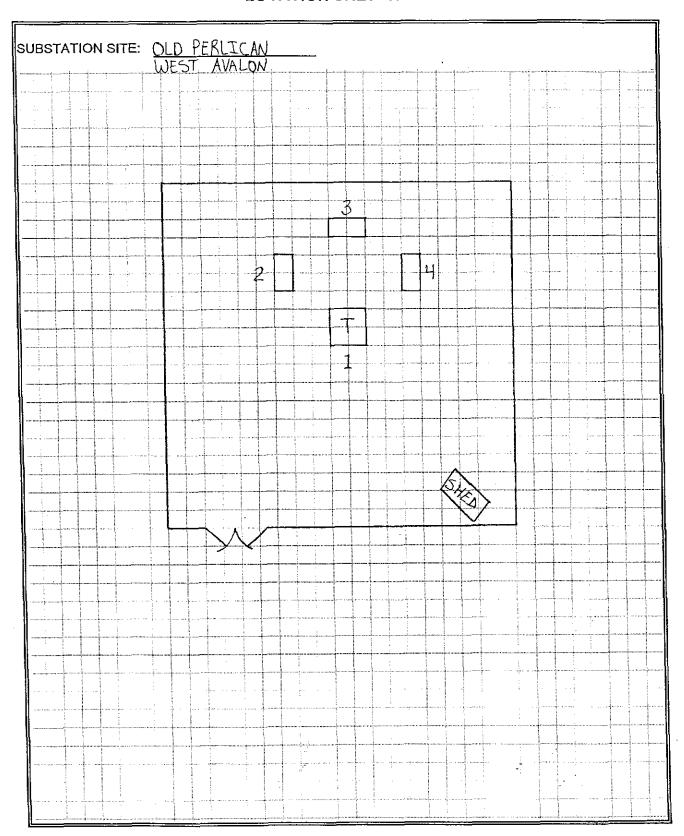
SUBSTATION SITE: Old Perlican DATE INSPECTED: 18-Apr-02 West Avalon

	West Avalon		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Good condition (44 Mpa).		4
Transformer			
200147			
#2 - OPL-	Good condition (28 Mpa).		4
03-R			
Recloser			
#3 - OPL-	Good condition (30 Mpa).		4
า1-R			
closer			1
#4 - OPL-	Rough finish on top surface of pad,		4
02-R	otherwise pad is in good condition (32 Mpa)		
Recloser		. **	}
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Priori	ty Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	









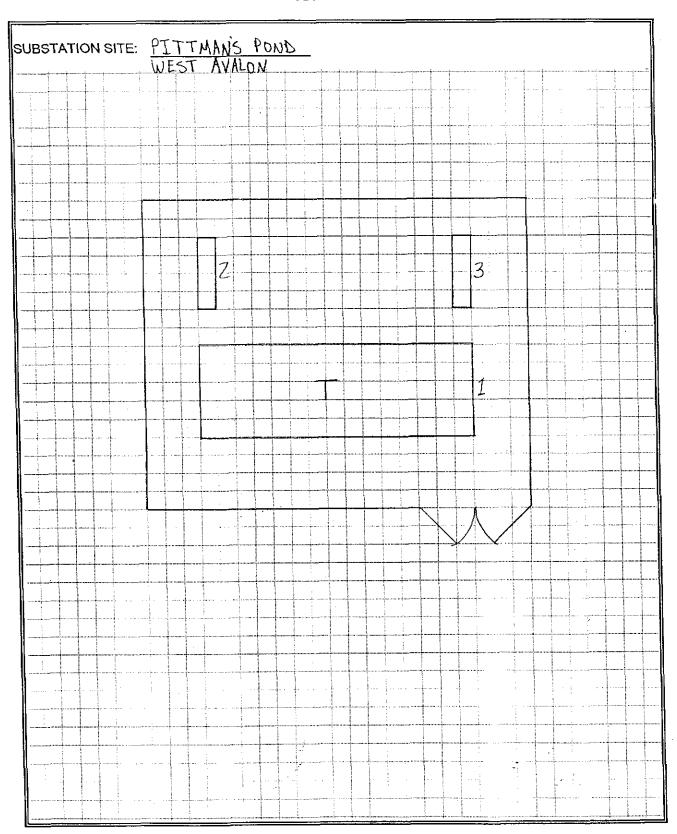


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	N SITE: Pittman's Pond West Avalon	DATE INSPECTED: 18-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Spill pan installed under transformer.	Based on limited visible concrete	4
	Visible portion of pad seems to be in good condition (26 Mpa).		
#2 -	One small area of pad is chipped on top	Type A Repair	3
Structure Low Voltage	surface of pad, remainder of pad is in		
#3 -	One area on top surface is chipped away	Type B Repair	2
v Voltage	with minor alligator cracking also in this area, otherwise pad is in good condition (26 Mpa).		
			_

Priorit	ty Rating	Priority Description	Recommended Time Frame
Ā	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within.3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	











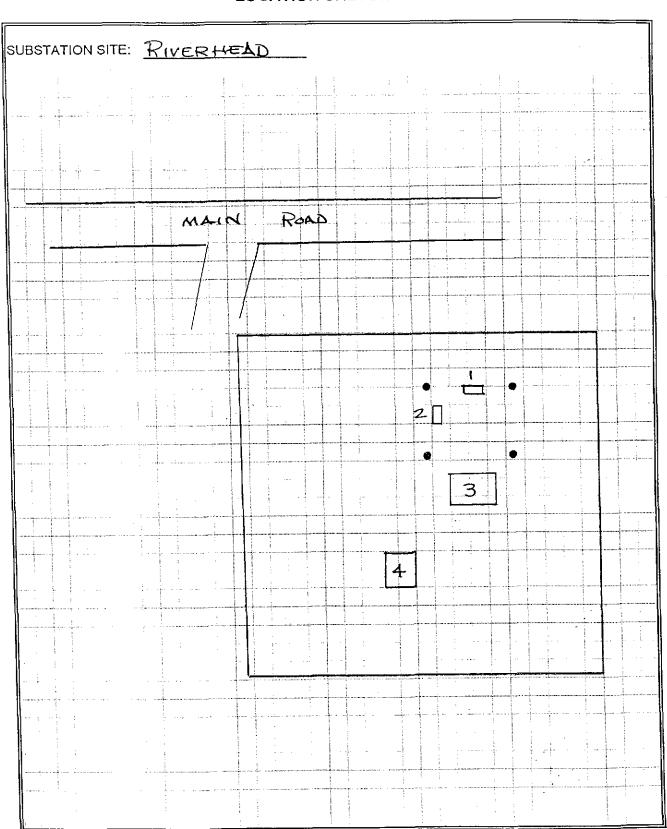
SUBSTATION SITE:	Riverhead	DATE INSPECTED May 10,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - RVH-02	Good Condition. (38 Mpa)	Future Monitoring	4
-R	Surface is coarse in areas with weathered		
Recloser	cement/sand matrix.		
#2 - RVH-01	Good Condition. (40 Mpa)		4
- R	Surface is coarse in areas with weathered		
Recloser	cement/sand matrix.		
#3 - T1	Fair Condition.	Type A Repair	2
Transformer	The edges and corners are chipped away	1,750,110,000	
Transformer	above grade.		
#4 - RVH-95L	Good Condition. (32 Mpa)		4
#4 - KVN-93L	Good Condition. (32 Mpa)		
Oil Breaker			
Oli Breaker	<u> </u>		
			
		- 	 i

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE:	Springfield	DATE INSPECTED May 9,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - SPF-01	Good Condition. (38 Mpa)		4
-DI			
Low Voltage			
	4		
#2 - SPF-01	Good Condition. (42 Mpa)		4
#2 - SPF-01 -R	Good Condition. (42 Mpa)		
Recloser			
Recioser		*	
#3 - SPF-02	Good Condition. (40MPa)		4
-R			
Recloser			
li e			
#4 -SPF-102	Good Condition. (38 Mpa)		4
-BP	Cood Condition: (Co Mipa)		
Low Voltage			
ii .			
#5 - SPF-03	Fair to good Condition. (36MPa)	Type B Repair	2
-DL	Some alligator cracking throughout the		
Low Voltage	top surface. One crack (<1mm) from		[
	one anchor bolt out to side.		
1			
#6 - SPF-03	Good Condition. (38 Mpa)		4
-R	Cood Calididon. (od mpa)		<u> </u>
Recloser			
1			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION SITE:	Springfield	DATE INSPECTED May 9,2002	
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Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
‡7 -CT-373	Good Condition. (36 Mpa) Slight cement/sand matrix deterioration	Future Monitoring	4
#8 - SPF-1T1 -D Low Voltage	Good Condition. (44 Mpa)		4
#9 - T1 200277 Transformer	Good Condition. (42 Mpa) Minor alligator cracking starting to show on top surface.	Future Monitoring	4
#10 - SPF-T1 -A	Good Condition. (40 Mpa)		4
High Voltage			4
#11 - SPF-39 AS High Voltage	L Good Condition. (38 Mpa)		
#12 - SPF-39 -A6-GS High Voltage	DL Good Condition. (44 Mpa)		4

Priority Rating	Priority <u>Description</u>	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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SUBSTATION SITE:	Springfield	DATE INSPECTED May 9,2002

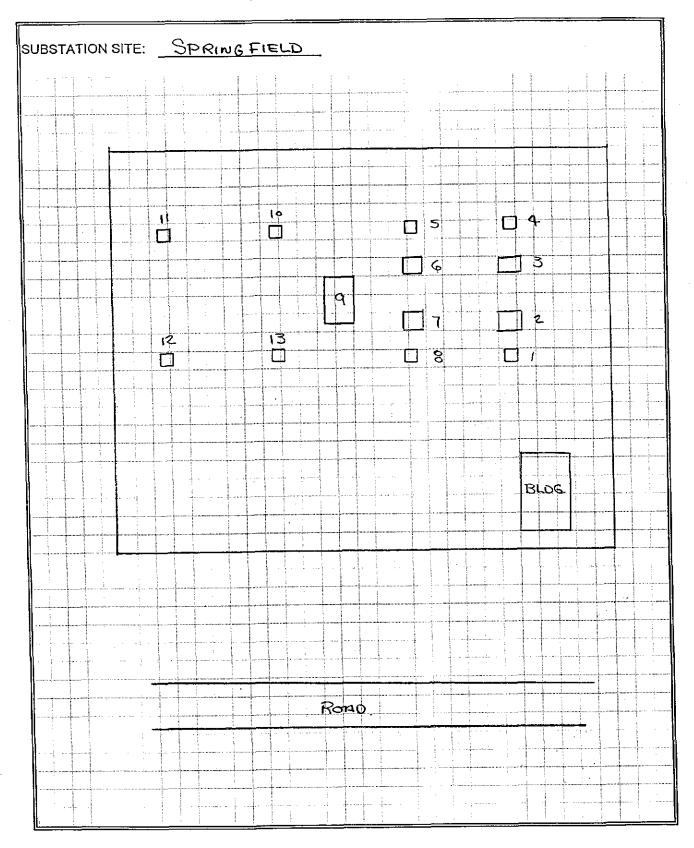
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - SPF-39L	Fair Condition	Type A & Type B Repair	2
-A6	Cement/Sand matrix deterioration on		
High Voltage	surface & chipping away of concrete on		
<u>.y</u>	one corner.There is also cracks(<1mm)		
	from middle of top surface out to each		
	side		

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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No competitive pation or maintenance required at this time	











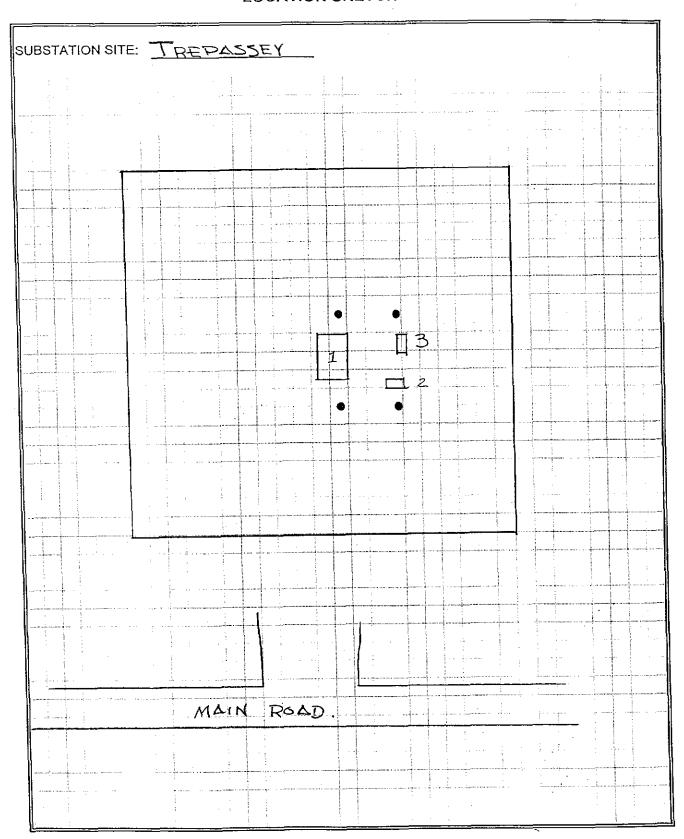
SUBSTATION SITE:	Trepassey	DATE INSPECTED May 13,2002	
			=

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Fair to Poor Condition. (36 Mpa)	Type A Repair	2
200251	The sides above grade & top have		
Transformer	excessive scaling and chipping on approx.		
	50% of the pad.		
#2 TDD 01 D	Poor Condition (36 Mpa on sides)	Type D Repair	1
Recloser	The top surface is badly deteriorated		
Reciosei	with excessive scaling & chipping.		
#3 - TRP-R-02	Good Condition. (38 Mpa)		4
Recloser			
1			
<u> </u>			
			-
-			
1			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











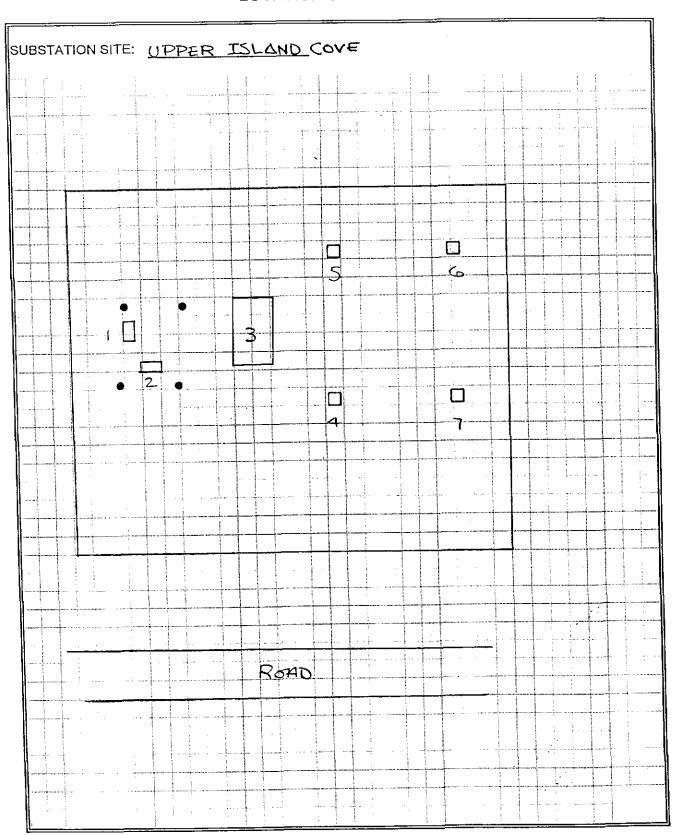
SUBSTATION SITE:	Upper Island Cove	DATE INSPECTED May 8,2002
SUBSTATION SITE.	Opper Island Oore	

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - ILC-01-R	Good Condition. (30MPa)		4
Recloser			
	Good Condition. (30MPa)		4
Recloser			
#3 - 200263	Good Condition. (38MPa)		4
Transformer			
#4 - ILC-57L	Good Condition. (38MPa)		4
-A2			
High Voltage			
#5 - ILC-T1-A	Good Condition. (36MPa)		4
High Voltage			
#6 - No #	Good Condition. (32MPa)		4
High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









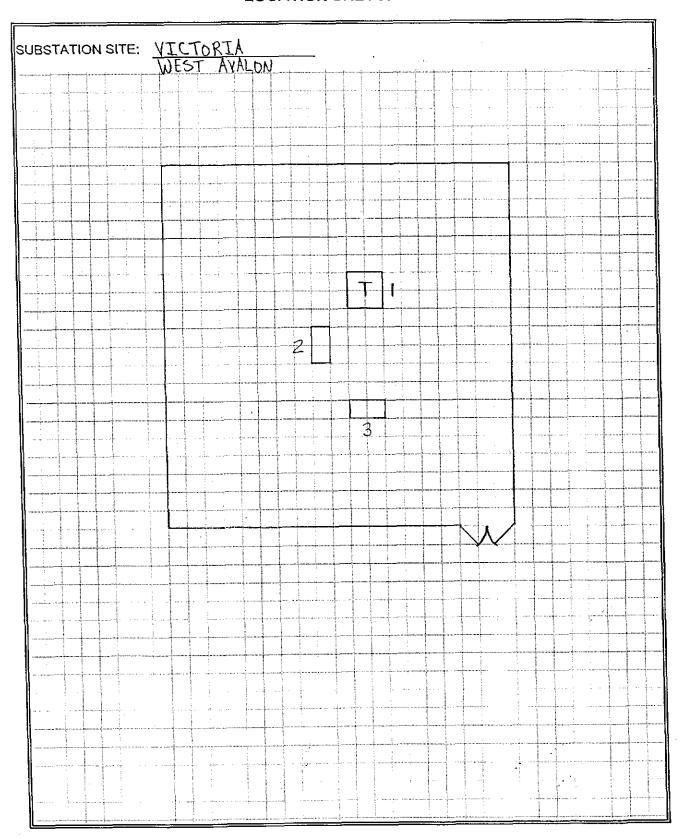


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION SITE: Victoria DATE INSPECTED: 18-Apr-02 West Avalon			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Spill pan installed under transformer.		
Transformer 200217	No portion of pad is visible to make assessment of general condition.		
#2 - VIC- 01-R Recloser	Good condition (36 Mpa).		4
#3 - VIC- 02-R	Two ends of pad have eroded away to a distance of approx 75mm, some	Type A Repair	2
Recloser	aggregate is exposed and can be easily removed (22MPa)		
 			<u> </u>

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











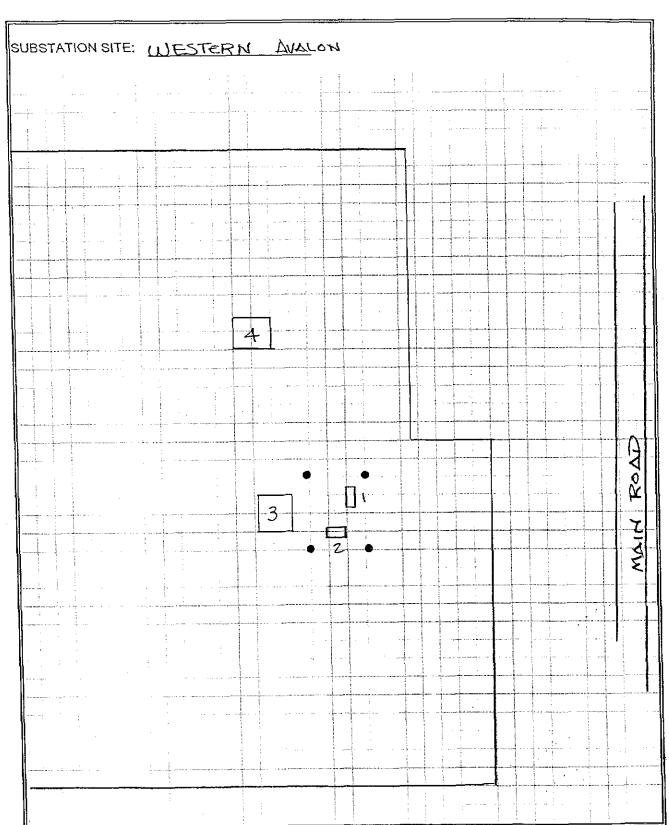
SUBSTATION SITE:	Western Avalon	DATE INSPECTED May 10,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - WAV-01	Good Condition. (32 Mpa)		4
-R			
Recloser			
#2 - WAV-02 - R	Good Condition. (38 Mpa)		4
Recloser			
	Good Condition. (36 Mpa)		4
Transformer			
#4 - WAV-86L	Fair to Good Condition. (36 Mpa)	Type B Repair	2
-B	Several hairline cracks (<1mm) near		
Oil Breaker	comers.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







BURIN - BONAVISTA - CENTRAL

GANDER AREA CLARENVILLE AREA BURIN PENINSULA AREA

GANDER AREA

BOYD'S COVE **COBBS POND GAMBO GANDER GANDER BAY GLENWOOD GLOVERTOWN GREENSPOND** HARE BAY MUSGRAVE HARBOUR **ROYCEFIELD SUMMERFORD** TERRA NOVA TRINITY **TWILLINGATE** WESLEYVILLE



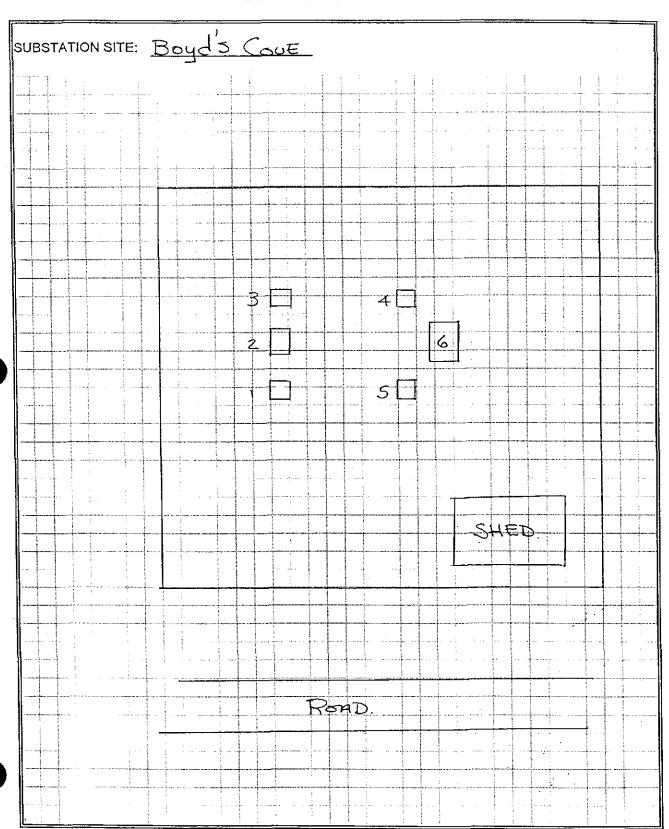
SUBSTATION SITE:	Boyds Cove	DATE INSPECTED	April 24,2002
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Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
 #1 - BOY	Good Condition. (44MPa)		4
-114L-GS2			
High Voltage			
#2 - BOY	Good Condition. (40MPa)		4
-TL254-B			
Oil Breaker			
#3 - BOY	Good Condition. (42MPa)		4
-TL254-GS			
High Voltage			
#4 - BOY	Good Condition. (42MPa)		4
-114L-A1			
High Voltage			
#5 - BOY-T1	Good Condition. (new concrete)		4
Transformer	(42MPa)		
#6 - No #	Good Condition		4
High Voltage			
11			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
_	No. 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	









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Cobbs Pond

DATE INSPECTED April 23,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - COB-144L	Fair Condition. (38MPa)	Type C Repair	2
-GS	There are several cracks (>1mm) that		<u></u>
High Voltage	extend from the middle of the top surface		
	out to the sides.	<u> </u>	
#2 - COB-144	Fair to Good Condition. (36MPa)	Type A Repair	3
-210-D1	Several minor hairline cracks and minor	урь торы	
High Voltage	alligator cracking in the middle of the top		
High voltage	surface.		
#3 - COB-210L	Fair Condition. (38MPa)	Type A & B Repair	2
-GS	There are several cracks (<1mm) that		
High Voltage	extend from the middle of the top surface		
	out to the sides.		<u> </u>
	Minor spalling on one side.		
#4 - COB-144	Good Condition. (36MPa)		4
-210B			
Oil Breaker			
			-
#5 - COB-210L	Fair Condition. (38MPa)	Type A & B Repair	2
-A	There are several cracks (<1mm) that		
High Voltage	extend from the middle of the top surface		
	out to the sides.		
	Honeycombing evident on one side.		<u> </u>
#6 - No #	Good Condition		4
Not in Use			
1			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE	Cobbs Pond

DATE INSPECTED April 23,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - COB-T1	Fair to Good Condition. (36MPa)	Type A & B Repair	3
144-DL	Two minor hairline cracks in to surface		
High Voltage	and one small area in top showing minor		
	chipping.		
#8 - COB-T1	Good Condition. (39MPa)		4
-144-B			
Oil Breaker			
			
#9 - COB-T1-A	Two cracks (<1mm) from middle of top	Type B Repair	3
High Voltage	surface to the sides.		
#10 - COB-T2	Good Condition. (36MPa)		4
200313			
Transformer			
#11 COR 143	Good Condition. (38MPa)		4
-B	Good Collation: (Solvie a)		
Oil Breaker			
Oli Bicakci			
	Good Condition. (38MPa)		4
#NAME?			
High Voltage			
			1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Control (COMPA)		4
#13 - COB-210	Good Condition. (38MPa)		
-136-B Oil Breaker			
Oil Breaker			
#14 - COB-210	Fair Condition. (38MPa)	Type C Repair	_ 2
-136-D2	There are several cracks (>1mm) that		
High Voltage	extend from the middle of the top surface		
	out to the sides.		
#15 - No #	Poor to Fair Condition.Ther are numerous	Type D Repair	1
High Voltage	cracks from middle of top surface to sides	TOP TO THE PARTY OF THE PARTY O	1
ingii voltago	and a lot of cracks around the anchor bolts		
	Some spalling on the corners.		
#40 No #	Fair Candillan Canaka aytanding from	Type B Repair	2
#16 - No #	Fair Condition. Cracks extending from	Type D Nepall	
High Voltage	middle of top surface to sides.(<1mm)		
	and slight alligator cracking around		
	middle of top surface		
#17 - COB-136	Fair Condition. Cracks extending from	Type B Repair	2
-T1-D2	middle of top surface to sides.(<1mm)		
High Voltage	and slight alligator cracking around		
	middle of top surface		
#40 COD 400	Cond Condition (28MPs)		4
#18 - COB-136	Good Condition. (38MPa)		
-T1-B			
Oil Breaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Cobbs Pond	DATE INSPECTED April 23,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - COB-136L	Fair Condition. Cracks extending from	Type A & B Repair	2
-A	middle of top surface to sides.(<1mm)		
High Voltage	One piece of rebar exposed on one side		· .
	(34MPa)		
#20 - COB-T1	Good Condition. (32MPa)		4
-200304			
Transformer			
			<u> </u>
		<u> </u>	
#21 - COB-T1	Good Condition. (38MPa)		4
-DL			
Low Voltage			
1			
#22 - COB-T1	Good Condition.(36MPa)		4
-B			
Oil Breaker			
#23 - No #	Good Condition		
Not in Use	Good Coridition		
Not in Use			
		:	
	<u> </u>		
			
#24 - COB-5-S	Fair Condition. Cracks extending from	Type B Repair	2
-D	middle of top surface to sides.(<1mm)		
Low Voltage	The state of the s		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



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Cobbs Pond

DATE INSPECTED April 23,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - COB-02	Fair Condition. Cracks extending from	Type B Repair	2
-BP	middle of top surface to sides.(<1mm)		
Low Voltage	(34MPa)		
#26 - COB-02	Good Condition. (40MPa)		4
-B Breaker			
#27 - COB-03	Good Condition. (40MPa)		4
-B Oil Breaker			
#28 - COB-01	Fair Condition. Cracks extending from	Type A & B Repair	2
DB	middle of top surface to sides.(<1mm)		
Low Voltage	and around the anchor bolt on one corner		
25	Also some scaling on this corner.		
	Good Condition. (38MPa)		4
Oil Breaker			
			/

Priority Rating	Priority Description	Recommende
1	Immediate corrective action required	wi
2	Corrective action required to avoid increasing costs to repair	₩i
3	General maintenance item	Ŵ
4	No corrective action or maintenance required at this time	

Recommended Time Frame

within 1 year within 3 years within 5 years





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Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - GAM -115L-B Oil Breaker	Poor Condition. Sever scaling on top surface.	Type D Repair	2
	Poor Condition. Sever scaling on top surface	Type D Repair	2
#3 - GAM-01 -R1 Recloser	Good Condition. (38MPa)		4
#4 - GAM-02 -R1 Recloser	Good Condition		4
#5 - 220578 Regulators	Good Condition. (38MPa) Equipment is placed on wooden timbers which are sitting on the concrete pad.		4
#6 - GAM-T1 200212 Transformer	Good Condition. (38MPa)		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



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Gambo

DATE INSPECTED April 23,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - GAM	Good Condition. (36MPa)		4
-146L-DB			
High Voltage			
#8 - GAM	Good Condition. (40MPa)		4
-146L-DB			
Oil Breaker			
#9 - No #	Good Condition. (38MPa)		4
High Voltage			
#10 - GAM	Good Condition. (40MPa)		4
-124L-B	Cood Condition. (10th a)		,
Oil Breaker			
#11 - GAM	Fair Condition	Type B Repair	3
-124L-DL	There are cracks that extend from the		
High Voltage	middle of the top surface to the sides (<1mm)		
#12 - GAM	Good Condition. (36MPa)		4
124L-GS1			
High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1 ,	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

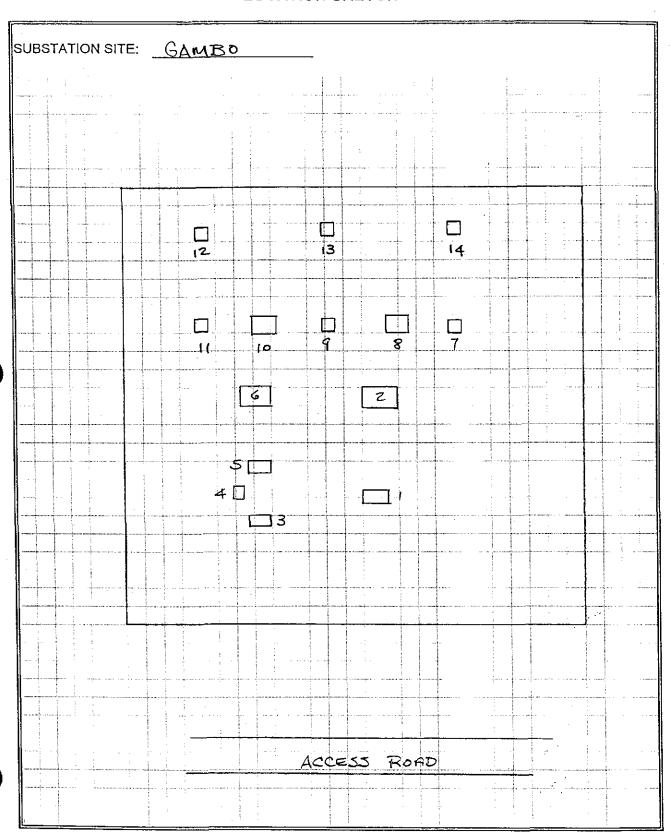


UBSTATION	SITE: Gambo	DATE INSPECTED April 23,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priorit Rating
13 - No # ligh Voltage	Good Condition. (38MPa)		4
f14 - GAM -146L-A1	Good Condition. 38MPa) One comer has minor aggregate exposure	Type A Repair	3_
High Voltage	One corner has minor aggregate exposure		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









SUBSTATION SITE:

Gander

DATE INSPECTED April 24,2002

Fdn/Pad Type & No.	·		Priority Rating
‡1 - GAN-T1	Poor Condition. The top & sides are scaling	Type D Repair. However the size and	. 1
-A	with two of the base plates undermined.	anchor bolt placement in this foundation	
High Voltage	The sizing of this foundation for the	should be reviewed to determine if it was	
	structure is questionable. The anchor bolts	constructed to specifications. A total	
,	are within 50mm of the sides.	replacement of the foundation may be	
		warranted.	
#2 - No #	Poor Condition. The top & sides are scaling	Type D Repair. However the size and	1
High Voltage	with two of the base plates undermined.	anchor bolt placement in this foundation	
	The sizing of this foundation for the	should be reviewed to determine if it was	
	structure is questionable. The anchor bolts	constructed to specifications. A total	
	are within 50mm of the sides.	replacement of the foundation may be	[
	(34MPa @ 300mm down from top)	warranted.	
#3 -GAN	Fair Condition.	Type A & Type C Repair.	2
-146L-DB	Cracks (>1mm) extending from middle of		
High Voltage	top surface out to sides. Alligator cracking]
	in middle of top and some scaling on one		
	side. (38MPa)		
#4 - GAN-BTS	Fair Condition.	Type A & Type C Repair.	2
-1	Cracks (>1mm) extending from middle of		
High Voltage	top surface out to sides. Alligator cracking		
<u> </u>	in middle of top and some scaling on one		
	side. (38MPa)		4
#5 - PT	Good Condition. (40MPa)		4
120005			
			-
			† †
#6 - No #	Good Condition. (38MPa)		4
Circuit			4
Breaker			-
		<u> </u>	
			7

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Gander	DATE INSPECTED April 24,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - No #	Good Condition		4
Circuit			
Breaker]
			-
#8 - No #	Good Condition (36MPa)		4
Circuit			
Breaker	1100]
] ·
#9 - GAN	Fair Condition.	Type C Repair	2
-146L-DL	Cracks (>1mm) extending from middle of		_
High Voltage	top surface out to sides. Alligator cracking	<u> </u>	_
1	in middle of top. (40MPa)		_
#10 - GAN	Fair Condition.	Type A & Type C Repair	2
#10 - GAN -144L-DB		Type A & Type C Repail	
High Voltage	Cracks (>1mm) extending from middle of top surface out to sides. Alligator cracking		
riigii voitage	in middle of top. (38MPa)		
	One corner has concrete spalled off.		-
	One contentas concrete spaned on.		-
#11,12,13,14	Good Condition.		4.
No #'s	(40 to 44MPa)		
Circuit]
Breakers].
			_
	Fair to Good Condition.	Type C Repair	2
P175	There are two cracks (>1mm) that extend		
Transformer	from the middle of the top surface to the		
	sides. (38MPa)		
			_
	<u> </u>	<u> </u>	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



#21 - GAN-T1 Good Condition (38MPa)

-B

Oil Breaker



	INSPECTION OF CONCRETE PADS & FOUNDATIONS		
SUBSTATION	SITE: Gander	DATE INSPECTED April 24,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#16 - GAN-T1 P-249 Transformer	Good Condition (new concrete) (36MPPa)		4
#17 - GAN-T2 -B Oil Breaker	Good Condition (40MPa)		4
#18 - GAN -102L-B Oil Breaker	Good Condition (38MPa)		4
#19 - GAN -108L-B Oil Breaker	Good Condition		4
#20 - P1 200001 Transformer	Fair Condition Top surface is scaling and there is some chipping along top edges.	Type A Repair	2

Priority Rating	Priority Description	Recommended Time Frame
1	immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





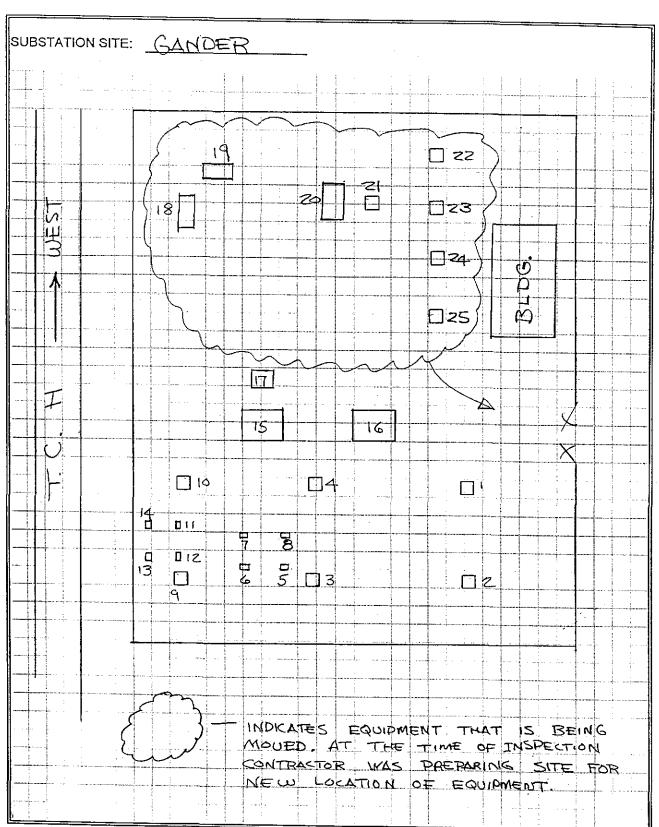
SUBSTATION SITE:	Gander	DATE INSPECTED April 24,2002
SUBSTATION SITE.	Ganuer	DATE INSPECTED April 24,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#22 - GAN-03	Fair Condition	Type A Repair	2
-B	Top surface is scaling and there is some		
Oil Breaker	chipping along top edges.		
#23 - GAN-01 -B	Good Condition.		4
Oil Breaker			
#24 - GAN-04 -B	Good Condition. (40MPa)		4
Oil Breaker			
	Good Condition		4
-B Oil Breaker			
			, :

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - GBY-T1 P248	Good Condition.(new) (40MPa)		4
Transformer			
#2 - GBY-01	Good Condition (new) (40MPa)		4
-01-R1 Recloser			
#3 - GBY-02	Good Condition (new) (38MPa)		4
-R2 Recloser		1 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
#4 - GBY-03	Good Condition.(new) (40MPa)		4
-R1 Recloser			
	·		
			<u>.</u>

<u>Priorit</u>	<u>y Rating</u>	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	





SUBSTATION SITE: GAN	DER BAY			
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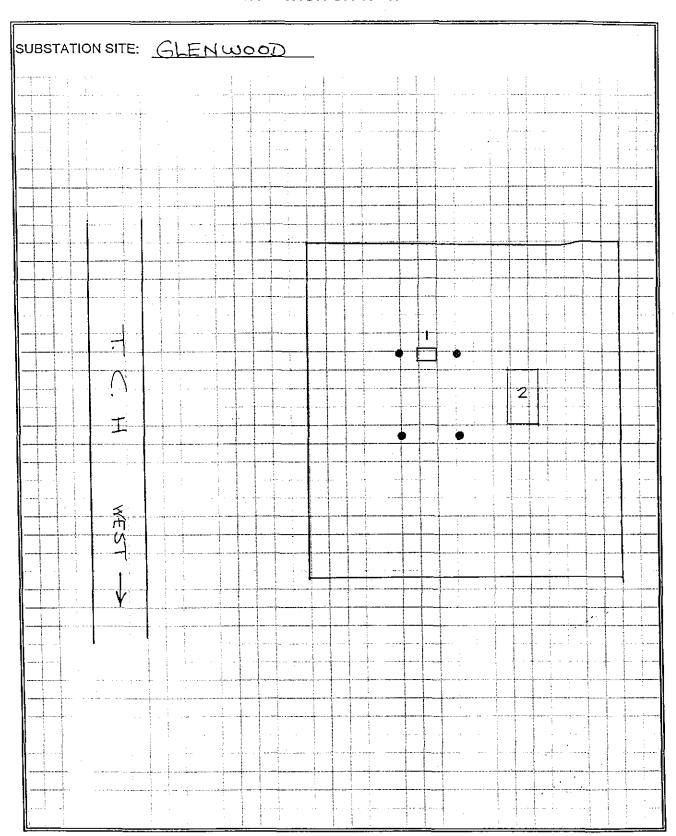


SUBSTATION	SITE: Glenwood	_DATE INSPECTED April 24,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - GLN-01	Good Condition. (38MPa)		4
-R			
Recloser			
#2 - BLN-T1	Good Condition. (38MPa)		4
200300			
Transformer			
			_
			<u> </u>

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•











SUBSTATION SITE:	Glovertown	DATE INSPECTED:	April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - GLV-01	Good Condition. Very minor alligator	Future Monitoring	4
-DL	cracking starting to appear.		
Low Voltage	(38MPa)		
Structure			
#2 - GLV-01-	Good Condition (38MPa)		4
R1			
Recloser			
·			
#3 - GLV-02	Good Condition (36MPa)		4
-R1			
Recloser		1.00	
#4 - GLV-02	Good Condition	Type B Repair	3
-DL	There are several very minor hairline cracks		
Low Voltage	(36MPa)		
Structure			
#5 - No #	Good Condition	Type A Repair	3
Low Voltage	There is a small area near one of the		
Structure	structure legs with minor spalling.		
#6 - 366	Good Condition (40MPa)		4
Metering Tank			
		·	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



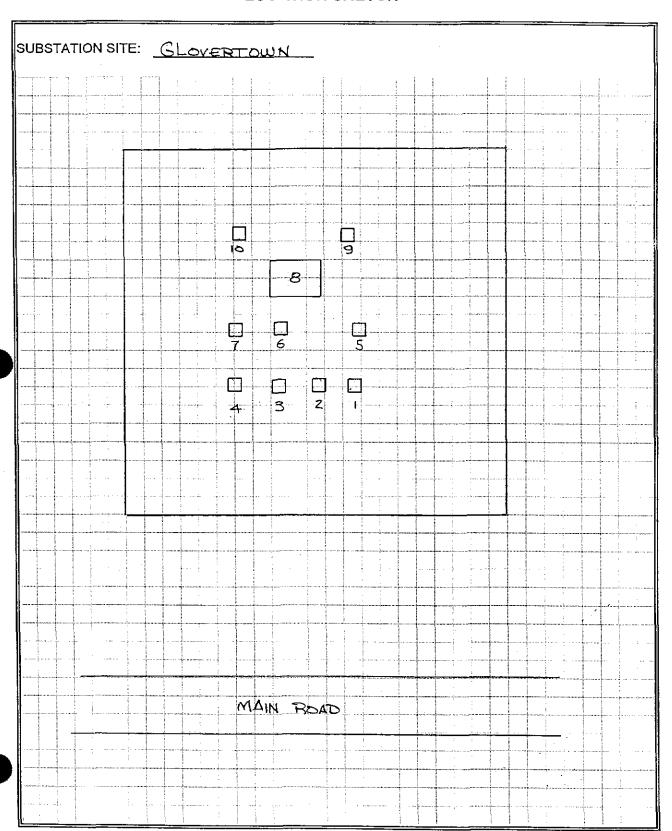
DUDGEATION CITE:	Glovertown	DATE INSPECTED:	April 15.2002
SUBSTATION SITE:	Gioveitowii	DATE MOFECTED.	April 10,2002

#7 - GLV-T1 Good Condition (38MPa) -DL Low Voltage Structure #8 - 200275 Good Condition (40MPa) Transformer #9 - GLV-T1 Fair Condition with cracks (>1mm) Type C Repair for cracking and Type A HGS extending from the middle of the foundation Repair for pitted areas. with the each side and several small pitted areas. #10 - GLV-Fair to good Condition with cracks (<1mm) Type B Repair #10 - GLV-Fair to good Condition with cracks (<1mm) Type B Repair #10 - GLV- Extending from the middle of the foundation out to each side Structure #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair	4
-DL Low Voltage Structure #8 - 200275 Good Condition (40MPa) Transformer #9 - GLV-T1 Fair Condition with cracks (>1mm) HGS extending from the middle of the foundation High Voltage Structure #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair Type B Repair Type B Repair Type B Repair Type B Repair Type B Repair Type B Repair Type B Repair Type B Repair Type B Repair	
#8 - 200275 Good Condition (40MPa) Transformer #9 - GLV-T1 Fair Condition with cracks (>1mm) Type C Repair for cracking and Type A HGS extending from the middle of the foundation Out to each side and several small pitted Structure #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair Type B Repair Type B Repair Type B Repair Out to each side out to each side	
#8 - 200275 Good Condition (40MPa) Transformer #9 - GLV-T1 Fair Condition with cracks (>1mm) Type C Repair for cracking and Type A HGS extending from the middle of the foundation Repair for pitted areas. High Voltage Structure #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair #10 - GLV- extending from the middle of the foundation out to each side #10 - GLV- extending from the middle of the foundation out to each side	
#8 - 200275 Good Condition (40MPa) Transformer #9 - GLV-T1 Fair Condition with cracks (>1mm) Type C Repair for cracking and Type A extending from the middle of the foundation Repair for pitted areas. High Voltage Structure areas. #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair 121L-GS extending from the middle of the foundation out to each side	
#9 - GLV-T1 Fair Condition with cracks (>1mm) Type C Repair for cracking and Type A _HGS extending from the middle of the foundation Repair for pitted areas. High Voltage Out to each side and several small pitted Structure areas. #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair 121L-GS extending from the middle of the foundation High Voltage Out to each side	
#9 - GLV-T1 Fair Condition with cracks (>1mm) Type C Repair for cracking and Type A _HGS extending from the middle of the foundation Repair for pitted areas. High Voltage out to each side and several small pitted Structure areas. #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair 121L-GS extending from the middle of the foundation out to each side	2
HGS	2
HGS	2
High Voltage out to each side and several small pitted Structure areas. #10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair 121L-GS extending from the middle of the foundation High Voltage out to each side	
#10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair 121L-GS extending from the middle of the foundation High Voltage out to each side	
#10 - GLV- Fair to good Condition with cracks (<1mm) Type B Repair 121L-GS extending from the middle of the foundation High Voltage out to each side	
121L-GS extending from the middle of the foundation High Voltage out to each side	
121L-GS extending from the middle of the foundation High Voltage out to each side	_
121L-GS extending from the middle of the foundation High Voltage out to each side	2
High Voltage out to each side	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









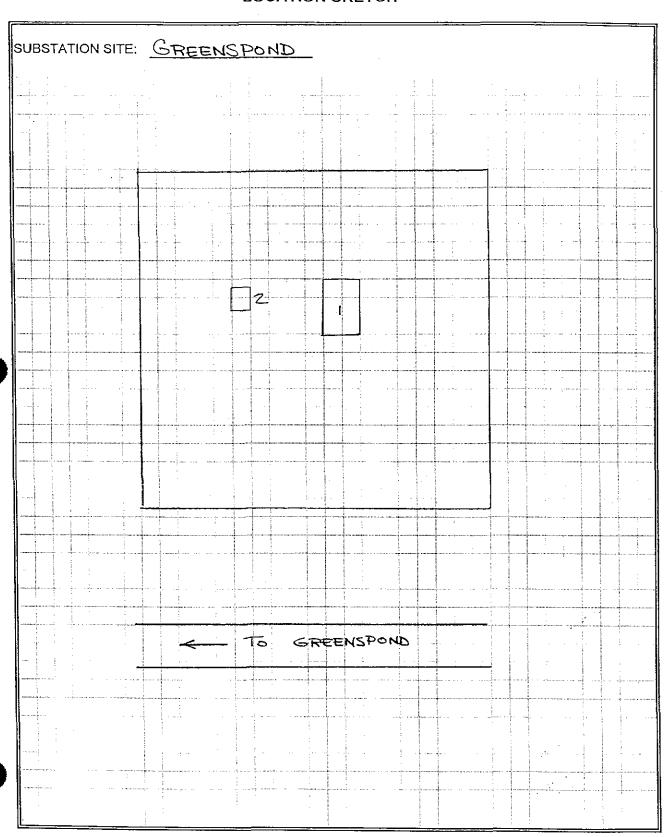


pro 1 - 1994 - 1	Occasion Condition	Dagammandations	Drin-it
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
1 - GPD-T1	Good Condition. (42MPa)		4
ransformer			
#2 - GPD-01	Good Condition. (38MPa)		4
-R1	There have been some minor repairs to		
Recloser	the edges previously.		
		MP. Marine	
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
A	No corrective action or maintenance required at this time	









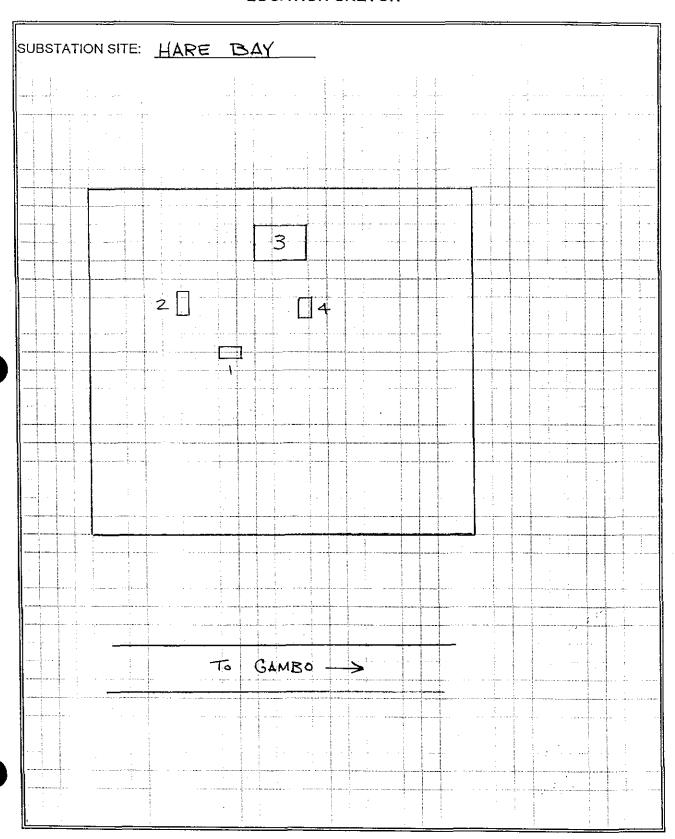


SUBSTATION	SITE: Hare Bay	DATE INSPECTED April 23,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - HBS-01 -R1 Recloser	Fair Condition. Some surface scaling and deterioration along edges. (20MPa on top Surface)	Type A Repair	2
#2 - HBS-02 -R1 Recloser	Fair Condition. Some surface scaling and deterioration along edges.	Type A Repair	2
#3 - HBS-T1 200231 Transformer	Fair Condition. Some surface scaling and deterioration along edges.	Type A Repair	2
#4 - No # Not in Use	Fair Condition. Some surface scaling and deterioration along edges.	Type A Repair if pad is to be used in future.	2

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







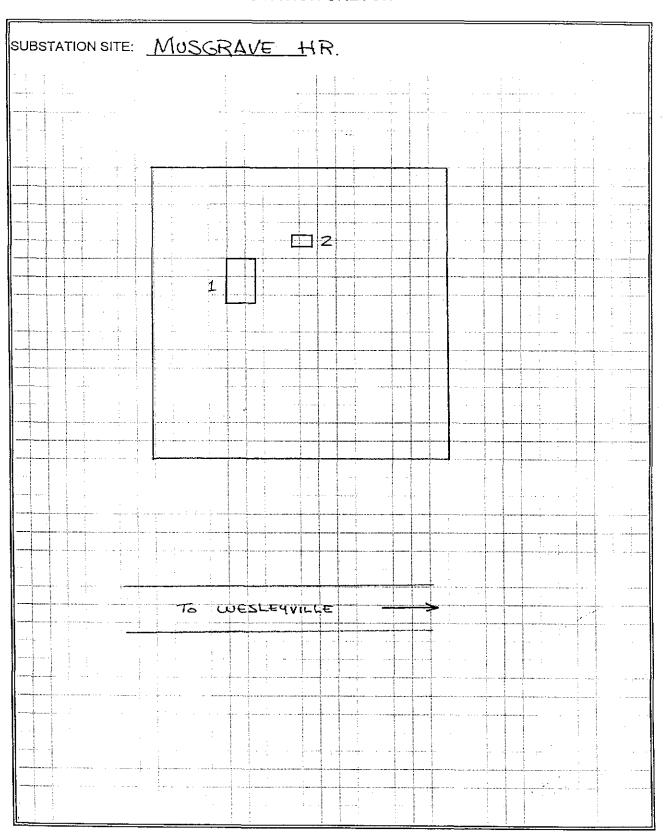


Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - 200600	Good Condition (34MPa)	Future Monitoring	4
Transformer	Some very minor chipping on top surface		
#2 - GBY-03	Fair Condition. (36MPa)	Type A Repair	2
-R4	Approx. 50% of the top surface is scaling		
Recloser	and some surface deterioration along one side and one corner.		
Strate-			·
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









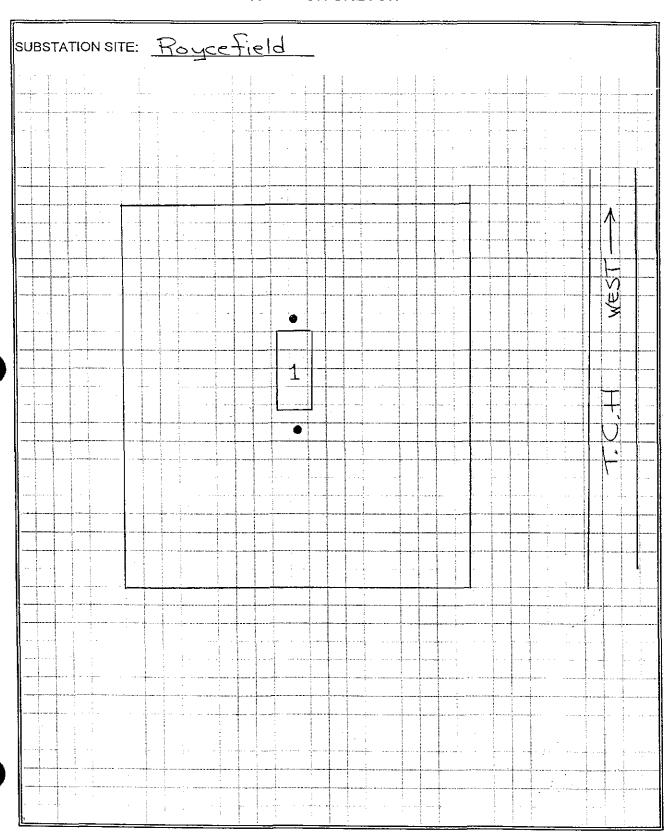


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	SITE: Roycefield	DATE INSPECTED April 24,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - RFD	Good Condition. (32MPa)		4
-104L-B			
Syniz Breaker			
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











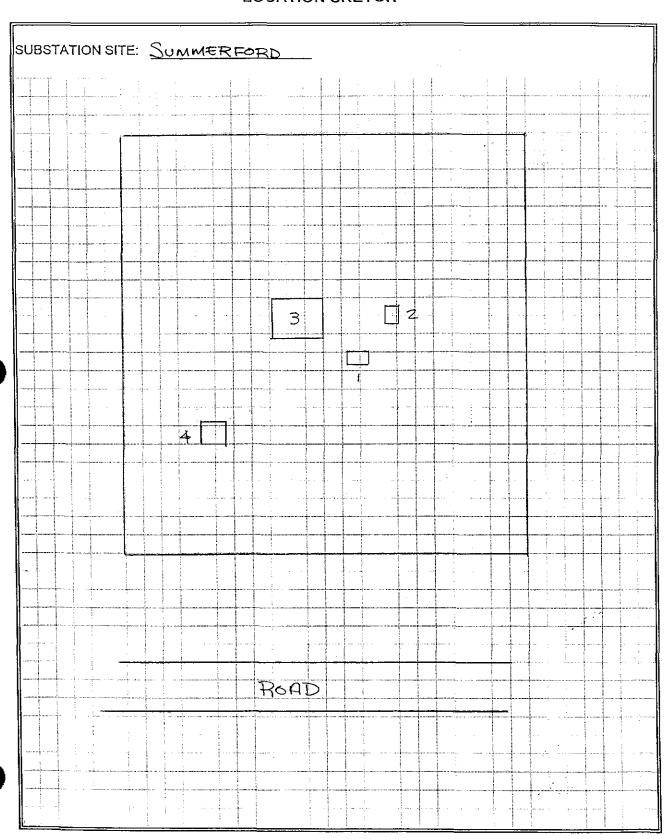
SUBSTATION SITE:	Summerford	DATE INSPECTED April 24,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - SUM-02	Good Condition. (46MPa)		4
-R1			
Recloser			
#2 - SUM-01	Good Condition. (42MPa)		4
-R1 Recloser			
#3 - SUM-T1	Good Condition. (new concrete)		4
200264 Transformer	(38MPa)		
#4 - SUM	Good Condition. (40MPa)		4
-140L-B Oil Breaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







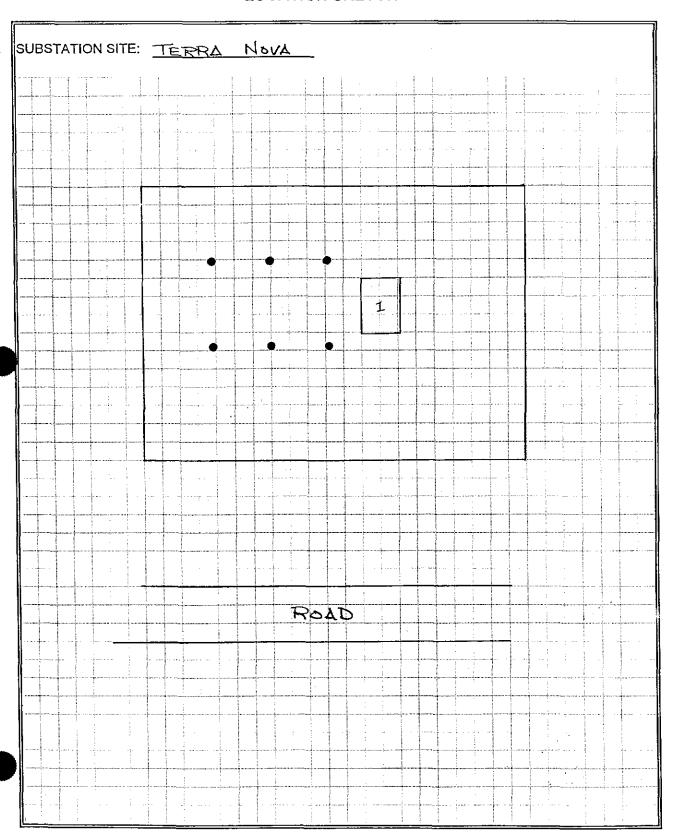


Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
1 - 200234	Good Condition (42MPa)		4
ransformer			-
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









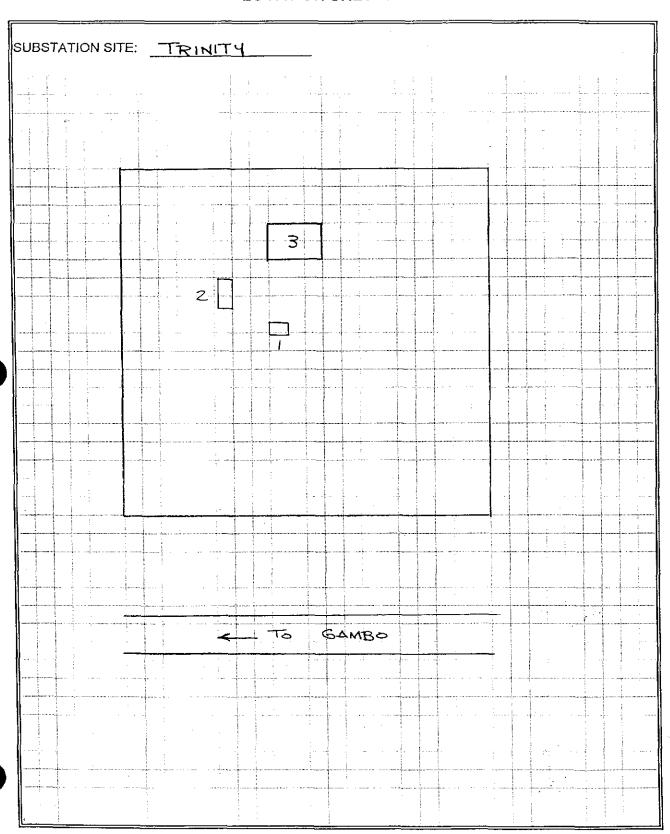


SUBSTATION SITE: Trinity DATE INSPECTED April 23,2002				
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#1 - TRN-02	Good Condition. (42MPa)		4	
-R1]	
Recloser]	
#2 - TRN-01	Good Condition. (40MPa)		4	
-R1			4	
Recloser			 - - -	
#3 - 200238	Good Condition. (44MPa)		4	
Transformer				
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







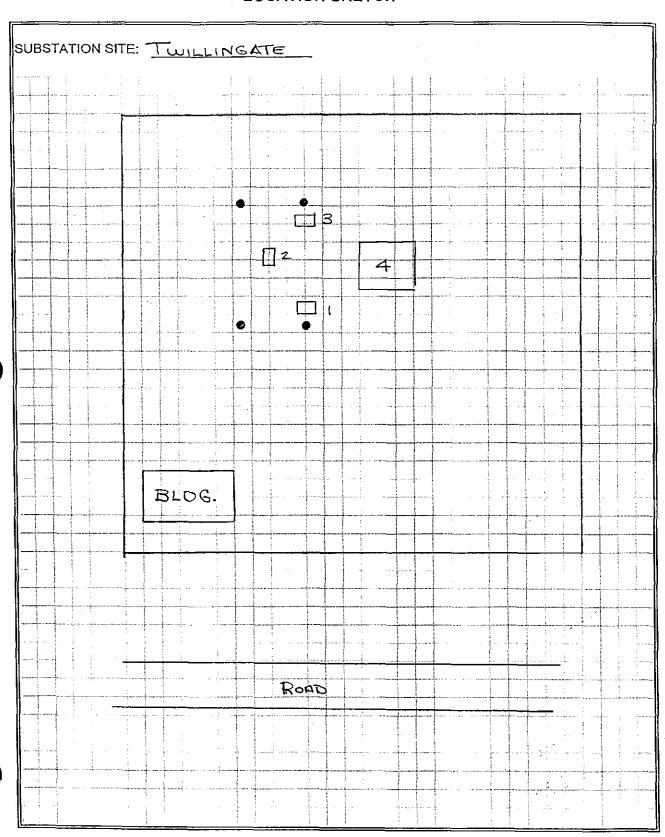


SUBSTATION	SITE: Twillingate	DATE INSPECTED April 24,2002		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#1 - TWG-01 Good Condition. (36MPa)			4	
Recloser				
#2 - TWG-02 -R2	Good Condition. (36MPa)		4	
Recloser				
#3 - TWG-03	Good Condition		4	
R1 Recloser				
#4 - TWG-T1	Spill Pan Installed.			
200261 Transformer	Could not inspect concrete.			

Priority Rating	Priority Description	_Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









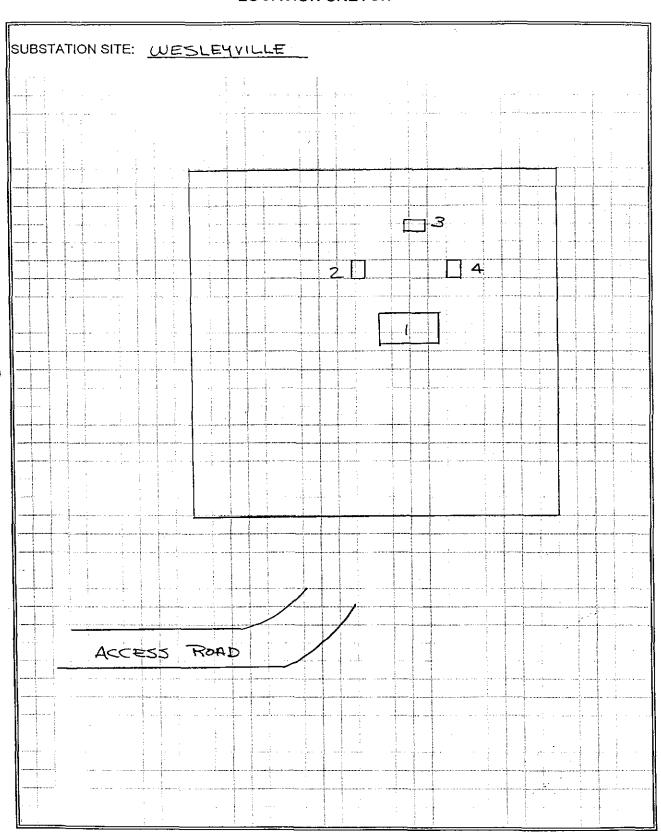
SUBSTATION SITE:	Wesleyville	DATE INSPECTED April 23,2002

Fdn/Pad General Condition Type & No.		Recommendations	
#1 - 200259	Good Condition. (38MPa)		4
Transformer			
#2 - WES-02	Fair to poor Condition.	Type D Repair	2
-R1	Approx. 70% of the top surface and above		
Recloser	grade sides have extensive scaling and chipping		
#3 - WES-01	Fair to Good Condition. (36MPa)	Type A Repair	3
-R1	Some chipping on one corner		
Recloser			
			4
#4 - WES-03	Good Condition. (36MPa)		
-R1 Recloser	New pad recently installed		
Recioser			
			· ·

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







CLARENVILLE AREA

BONAVISTA
CATALINA
CLARENVILLE
LETHBRIDGE
LOCKSTON
MILTON
NORTHWEST BROOK
PORT BLANDFORD
PORT UNION
SUMMERVILLE
SUNNYSIDE



SUBSTATION SITE:	Bonavista	DATE INSPECTED:	April 16,2002	

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - BVA	Good Condition. (38MPa)		4
-117L-GS			
High Voltage			
Structure			
#2 - BVA	Good Condition (36MPa)		4
-117L-A			
High Voltage			
Structure			
#3 - P-343	Good Condition, (40MPa)		4
Transformer			
#4 - No #	Fair Condition. Corner spalled off and	Type B Repair	3
Low Voltage	hairline cracks from middle of top surface		
Structure	out to sides. (36MPa)		
#5 - No #	Good Condition		4
Not in Use			
#6 - No #	Good Condition (40MPa)		4
Metering Tar			

Priority Rating	_ Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No according action or maintenance required at this time	





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Bonavista

DATE INSPECTED: April 16,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - BVA-03	Fair to Good Condition		
-DL	Two minor hairline cracks in top surface	Type B Repair	3
Low Voltage	(38MPa)		
Structure			
#8 - BVA-03	Good Condition. (44MPa)		4
-R-456			
Recloser			
#9 - BVA-01	Fair to Good Condition	Type B Repair	3
-BP	Hairline cracks(<1mm) from middle of top		
ow Voltage	surface to each side		
structure			
#10 - BVA-01	Good Condition (38MPa)		4
-R-259			
Recloser			
#11 - BVA-02	Good Condition (36MPa)		4
-R-256			
Recloser			
#12 - BVA-02	Fair Condition. Several hairline cracks	Type B Repair	2
-BP	(<1mm) in top surface and small alligator		
Low Voltage	cracking.		
Structure			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





BUBSTATION SITE: RONAVISTA B					
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SUBSTATION SITE:	Catalina	DATE INSPECTED:	April 16,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - CAT-03-DL	Good Condition. Starting to show some		4
Low Voltage	weathering around top edge		
Structure	(40MPa)		
#2 - CAT-02R	Good Condition. Starting to show some		4
-376	weathering around top edge		
Recloser	(28MPa)		
#3 - CAT-01-R	Fair Condition. The cement/sand matrix	Type A Repair	2
Recloser	is deteriorated on the the top surface &		
	edges.		
	Fair Condition. The cement/sand matrix	Type A Repair	2
Low Voltage	is deteriorated on the the top surface &		
Structure	edges. Some chipping on one corner near base plate. (38MPa)		
#5 - CAT-03-R	Good Condition. Starting to show some		4
-471	weathering around top edge		
Recloser	(36MPa)		
#6 - CAT-T2-D	Good Condition. Starting to show some		4
Low Voltage	weathering around top edge	· · · · · · · · · · · · · · · · · · ·	
Structure	(28MPa)		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Catalina	DATE INSPECTED:	April 16,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - No #	Good Condition. Starting to show some		4
MeteringTank	weathering around top edge		
	(38MPa)		
#8 - No #	Good Condition		4
Not in Use			-
			-
			_
			1 1
#9 - No #	Fair Condition. Some general surface	Type B Repair	3
Low Voltage	weathering and hairline cracks (<1mm)		
Structure	that extend from middle to each side.		
	(28MPa)		-
		-	_
#10 - T2-P-297	Good Condition with several minor spall	Type A Repair	3
Transformer	areas on one side.		
	(34MPa)		
		40-1	4
			-
#11 - CAT-T1	Fair Condition. Some general surface	Type B Repair	3
-HGS	weathering and hairline cracks (<1mm)		
High Voltage	that extend from middle to each side.		_
Structure	(38MPa)		_
		,	\dashv
#12 - CAT-T2	Good Condition. (38MPa)		4
-HGS			_
High Voltage			_
Structure			4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Catalina

DATE INSPECTED: April 16,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - 117L-B	Good Condition. There appears to be some	Should be monitored to ensure that	4
Oil Breaker	settlement on one corner of the pad.	equipment is not adversely affected by	
	The equipment is on a slight lean.	further settlement.	
	(28MPa)		_
#14 - CAT-1171	Fair to Good Condition	Type A Repair	3
-GS	There is one corner that has severe	Type // ttopus	
High Voltage	weathering of the cement/sand matrix.		-
Structure	(36MPa)	· · · · · · · · · · · · · · · · · · ·	-
#15 - CAT-T1-A	Good Condition (32MPa)		4
High Voltage			1
Structure			-
			-
#16 - CAT-T1	Good Condition (38MPa)		4
-239			
Transformer			_
#17 - T1-B	Good Condition. (34MPa)		4
Oil Breaker			
			_
#18 - No #	Good Condition (36MPa)		4
Low Voltage			_
Structure			
			-

Priority Rating	_ Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





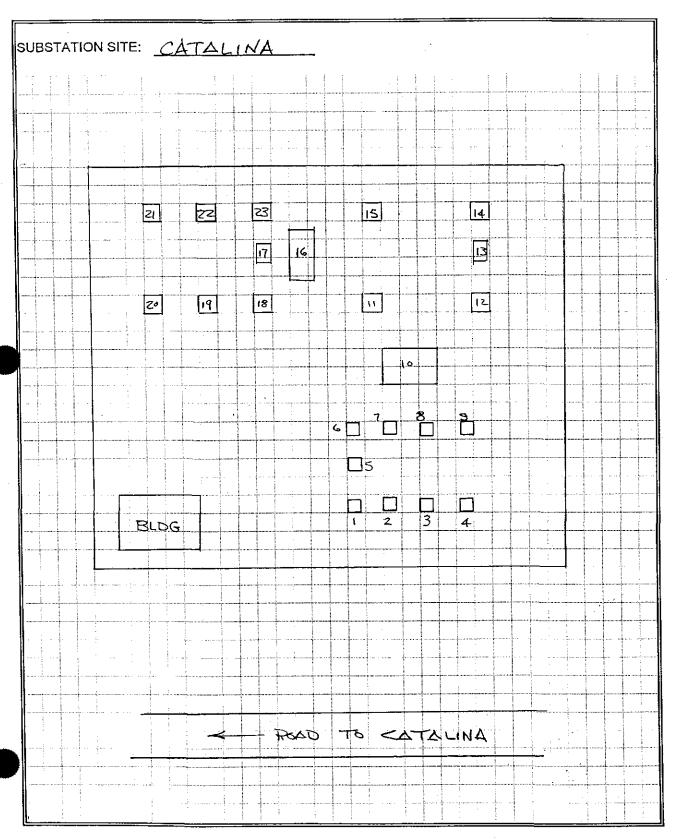
SUBSTATION SITE:	Catalina	DAT	E INSPECTED:	April 16,2002	
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Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - No #	Good Condition		4
Not in Use			
#20 - No #	Good Condition. Some minor cement/sand	Future Monitoring	4
Low Voltage	matrix deterioration		
Structure			
#21 - CAT-111L	Fair to Good Condition. Several hairline	Type B Repair	3
-DB	cracks (<1mm)		
Low Voltage	(38MPa)		
Structure			
#22 - No #	Good Condition		4
Not in Use			
#23 - No #	Good Condition. (38MPa)		4
Low Voltage			
Structure		_	
3			
		-	
-			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









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Clarenville

DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - CLV-110L-B	Good Condition (38MPa)		4
Oil Breaker			
#2 - CLV-T1 - 349	Good Condition. Starting to show some	Future Monitoring	4
Transformer	surface weathering		
#3 - 123L-DB	Fair Condition with a number of hairline	Type B Repairs	2
High Voltage	cracks extending out from middle to sides		
Structure	& some alligator cracking in the middle of		
	the top surface. Appears to have had some		
	repairs previously.		
#4 - CLV-T1-A	Fair Condition with a number of hairline	Type B & C Repairs	2
High Voltage	cracks extending out from middle to sides		
Structure	& some alligator cracking in the middle of		
	the top surface. Some cracks are		
	>1mm in width and there is minor chipping		
	on one corner. (34MPa)		
#5 - CLV-123L-B	Fair to Good Condition	Type B Repair	2
Oil Breaker	Ther is minor cement/sand matrix		
	deterioration and several hairline cracks		
#6 - CLV-123L	Fair Condition with a number of hairline	Type B & C Repair	2
-GS	cracks extending out from middle to sides		
High Voltage	& some alligator cracking in the middle of		
Structure	the top surface. Some cracks are		
	>1mm in width.		
	(36MPa)		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:

Clarenville

DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - CLV-BTS-3	Fair Condition with a number of hairline	Type B Repairs	2
High Voltage	cracks extending out from middle to sides		
Structure	& some alligator cracking in the middle of		
	the top surface.		
÷	(34MPa)	·	
#8 - 124L-B	This pad appears to have been changed to	Type C Repair	2
Breaker	accommodate a larger piece of equipment		
]	Pads have been added to the sides of the		1
	original one. There are several cracks		1
	>1mm in the original pad.The newer pads		1
	are in good condition.		1
#9 - CLV-100L	Fair Condition with a number of hairline	Type C Repair	2
-DB	cracks extending out from middle to sides		
ligh Voltage	& some alligator cracking in the middle of		
Structure	the top surface. Some cracks are		1
	>1mm in width. (34MPa)]
#10 - CLV-BTS	Fair Condition with a number of hairline	Type B Repair	2
-2	cracks extending out from middle to sides		
High Voltage	& some alligator cracking in the middle of		
Structure	the top surface.		
	Fair to Good Condition Surface beginning	Type B Repair	3
-B	to show some weathering. Several hairline		
Oil Breaker	cracks. (32MPa)		1
	Fair to Good Condition.	Туре В Repair	2
-GS	Ther is minor cement/sand matrix		1
High Voltage	deterioration and several hairline cracks		
Structure			_
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	, within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



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Clarenville

DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - No #	Fair to Good Condition	Type B Repair	2
High Voltage	Has one crack extending out from middle		
Structure	to each side.		
	(38MPa)		
#14 - CLV-109L	Good Condition. One minor crack on	Type B Repair	3
-B	outside edge of pad.		
Oil Breaker	(36MPa)		
	Fair Condition. Has several cracks across	Type C Repair	2
-DL	the top of the foundation. (>1mm)		
High Voltage	(36MPa)		
Structure			
#16 - CLV-T2-A	Fair to good Condition with several hairline	Type B Repair	3
High Voltage	cracks extending out from middle to sides		
Structure	& minor alligator cracking in the middle of		
	the top surface.	4-1-1/2	
#17 - T2-270	One area on the pad has surface scaling	Type A Repair	2
Transformer	& cement/sand matrix severly weathered		
	Remainer of pad in good condition.		
	(34MPa)		
#18 - CLV-03	Fair to good condition	Type B Repair	3
-DL	Minor hairline cracks and minor alligator		
Low Voltage	cracks.		
Structure			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years

No corrective action or maintenance required at this time





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SUBSTATION SITE:	Clarenville

DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - CLV-03-B	Good Condition (36MPa)		4
-253			
Oil Breaker			
#20 - 452	Fair to Good Condition	Type B Repair	3
Metering Tank	Two minor cracks (38MPa)		
	Fair to good Condition	Type A & B Repair. Wood should be	3
Low Voltage	Several cracks & some chipping of	removed from concrete before repairs are	
Structure	concrete. There is also a piece of wood	started.	
	embedded in the concrete.		
#22 - CLV-01	Fair to Good Condition	Type B Repair	3
-BP	Several minor hairline cracks as well as		
Low Voltage	minor alligator cracking.		
Structure			
#23 - CLV-01	Good Condition (36MPa)		4
-B-159			
Oil Breaker			
#24 - CLV-02-B	Good Condition (36MPa)		4
-160			
Oil Breaker			}

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Clarenville	DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - CLV-02	Fair to Good Condition	Type B Repair	3
-BP	Several minor hairline cracks as well as		_
Low Voltage	minor alligator cracking.		
Structure			_
#26 - 123L	Poor Condition with the top and top edges	It appears that at least the top 150 to	1
PT Structure	extremely deteriorated. The concrete	200mm of concrete should be replaced.	_
	under the structure leg supports is chipped	Considering the size of this structure	4
	away leaving little support.	it is recommended that it be removed	4
	The structure itself has an obvious lean to	& replaced.	_
	one side.		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	CLARENUILLE		
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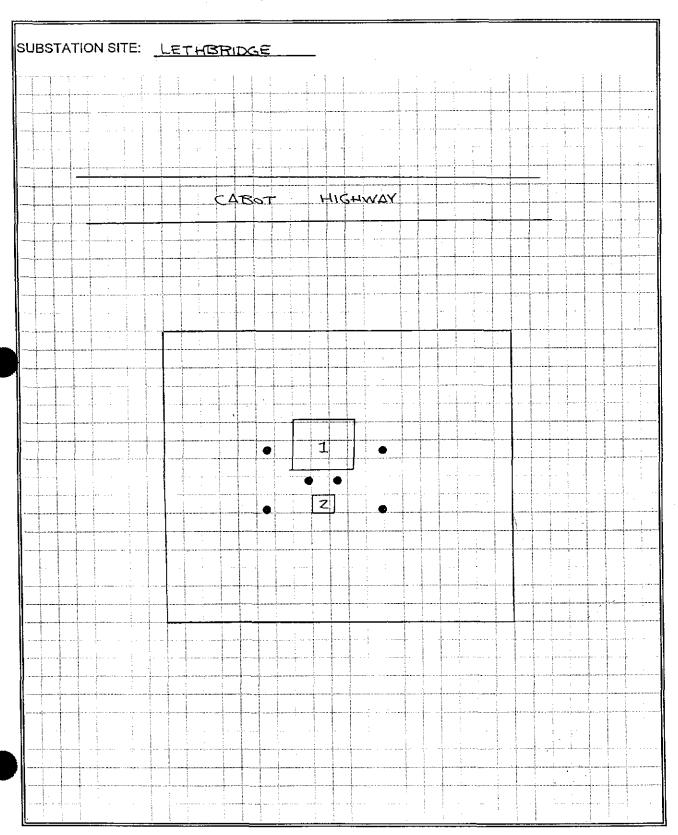
SUBSTATION SITE:	Lethbridge	DATE INSPECTED:	April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1-P289	Good Condition with very minor pitting at	Future Monitoring	4
Transformer	a couple of areas on top surface]
	(38MPa)		
#0 1 - 1 04 D	Des Cardillos with the ten 2 adgree of the	Type E Repair - removal of existing pad	1
#2 - Let-01-R	Poor Condition with the top & edges of the	and replacement.	 '
-492 Recloser	pad deteriorated. The equipment is supported on metal legs that are sitting on	and repracement.	1
recioser	two pieces of channel iron. The channel	 	1
	along one side is undermined because of		1
	deteriorated concrete.	 	1
	deteriorated concrete.		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	·









SUBSTATION SITE:	Lockston	_DATE INSPECTED:	April 16,2002	

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - LOK-T4	Spill pan installed on pad.		
-P177	Could not inspect concrete		
Transformer		,	
#2 - LOK-T1	Spill pan installed on pad.		
-P176	Could not inspect concrete		
Transformer			MA CALLES AND A CA
#3 - LOK-01	Good Condition. Starting to show some		4
-R-222	general weathering on surface		
Recloser	(36MPa)		
		-18-4-	
#4 - LOK-T3	Spill pan installed on pad.	Providence of the second secon	
-P222	Could not inspect concrete	1.00000	
Transformer			
#5 - LOK-T2	Call and installed on god		
-P209	Spill pan installed on pad. Could not inspect concrete		
Transformer	Could not inspect concrete		
#6 - I OK-110	L Good Condition. Starting to show some		4
-B	general weathering on surface		
Oil Breaker	(34MPa)		
	111 12 12	, , , , , , , , , , , , , , , , , , , ,	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





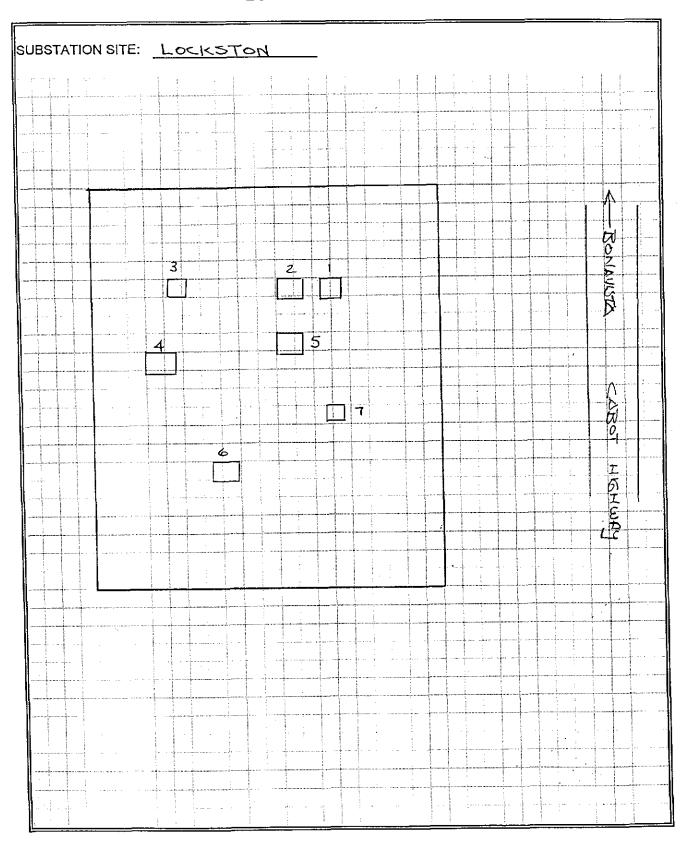
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SUBSTATION SITE:	Lockston	DATE INSPECTED:	April 16,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - No # Not in Use	Good Condition. (34MPa)		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	•











SUBSTATION SITE:		
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DATE INSPECTED: April 15,20	ED: April 15,200	April 15,2002
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Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - Mil-110L	Fair Condition with cracks(some>1mm)	Type C Repair	2
-A2	extending out from middle to each side of		
High Voltage	foundation. Some minor alligator cracking.		
Structure	(40MPa)		
#2 - Mil-110L	Fair Condition with cracks(some>1mm)	Type C Repair	2
-A1	extending out from middle to each side of		
High Voltage Structure	foundation. Some minor alligator cracking.		
#3 - No #	Good Condition		4
High Voltage			
Structure			
#4 - Mil-T1-A	Good Condition (38MPa)		4
High Voltage			
Structure			
#5 - Mil-T1	Good Condition overall	Туре А Repair	3
-339 	There are a couple of areas on top surface		
Transformer	that has minor scaling		
#6 - No #	Good Condition with the exception of one	Type A Repair	3
Low Voltage	corner that has the outside 25mm chipped		
Structure	away.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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SUBSTATION SITE:	MILTON	DATE INSPECTED:	April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
· · · · · ·	Good Condition (38MPa)		4
Metering Tank			
:			
	Good Condition (36MPa)		4
Low Voltage			_
Structure			
			4
	Good Condition (38MPa)		4
Low Voltage			
Structure			
#10 - Mil-02-R	Good Condition with the exception of	Type A Repair	2
513	top edge along on side which is being		
Recloser	chipped away.		
#11 - Mil-01-R	Good Condition with the exception of	Type A Repair	2
-419	top edge along on side which is being		
Recloser	chipped away.		
	Not as severe as # 10	, ·	
	E : O : W : Who O sides having the tag	Type A Repair at a minimum with a	1
#12 - Mil-01	Fair Condition with 3 sides having the top	Type D recommended to achieve long	
-BP	edges severely weathered away	term structural integrity of foundation.	
Low Voltage	The concrete under one of the structure	nem structural integrity of foundation.	
Structure	base plates is severely deteriorated.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	MILTON
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SUBSTATION SITE:

Northwest Brook

DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
 #1 - Nwb-09L	Good Condition (28MPa)		4
-GSI			
High Voltage			
Structure			
	Good Condition (28MPa)		4
-GS2			
High Voltage			
Structure			
#3 - Nwb-T1	Good Condition (26MPa)		4
-HGS			
High Voltage			
Structure			
#4 Nwb-T1A	Good Condition (38MPa)		4
High Voltage			
Structure			
#5 - Nwb-T1	Good Condition However the surface is	Future Monitoring	4
-200319	starting to shown minor cement/sand		
Transformer	matrix deterioration.		
#6 - Nwb-VR	Good Condition However the surface is	Future Monitoring	4
-220361	starting to shown minor cement/sand	i ataro morntornig	
Voltage	matrix deterioration.		
Regulator	manx detenoration.		

Priority Rating	Priority Description	<u>Recommended Time Frame</u>
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE: Northwest Brook DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good Condition However the surface is	Future Monitoring	4
Recloser	starting to shown minor cement/sand matrix deterioration.		
	Good Condition However the surface is	Future Monitoring	4
Recloser	starting to shown minor cement/sand matrix deterioration.		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Port Blandford

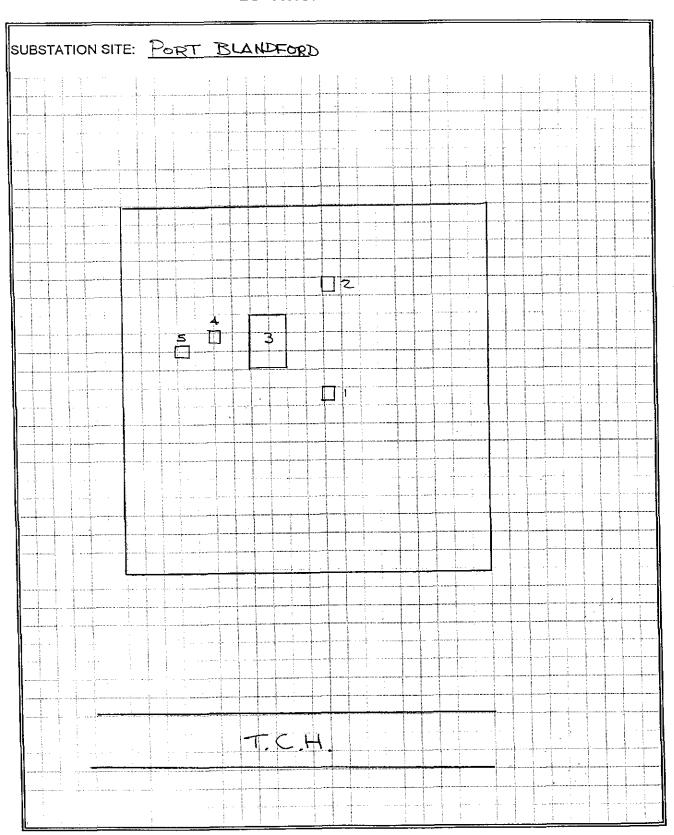
DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - PBD-T1	Good Condition (42MPa)		4
-HGS			
High Voltage			
Structure			
#2 - PBD-T1	Good Condition (34MPa)		4
-A			
High Voltage			
Strucrure			
#3 - PBD-T1	Good Condition (46MPa)		4
-P338 Transformer			
#4 - 5785	Good Condition (48MPa)		4
Metering Tank			
#5 - PBD-01	Good Condition (48MPa)		4
-R483			
Recloser			
			1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE: Port Union DATE INSPECTED: April 16,2002							
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating				
#1 - PUN-T1	Spill Installed on pad.						
Transformer	Could not inspect concrete						
#2 - No #	Good Condition (36MPa)		4				
Not in Use							
#3 - No #	Good Condition. (37MPa)		4				
Not in Use							

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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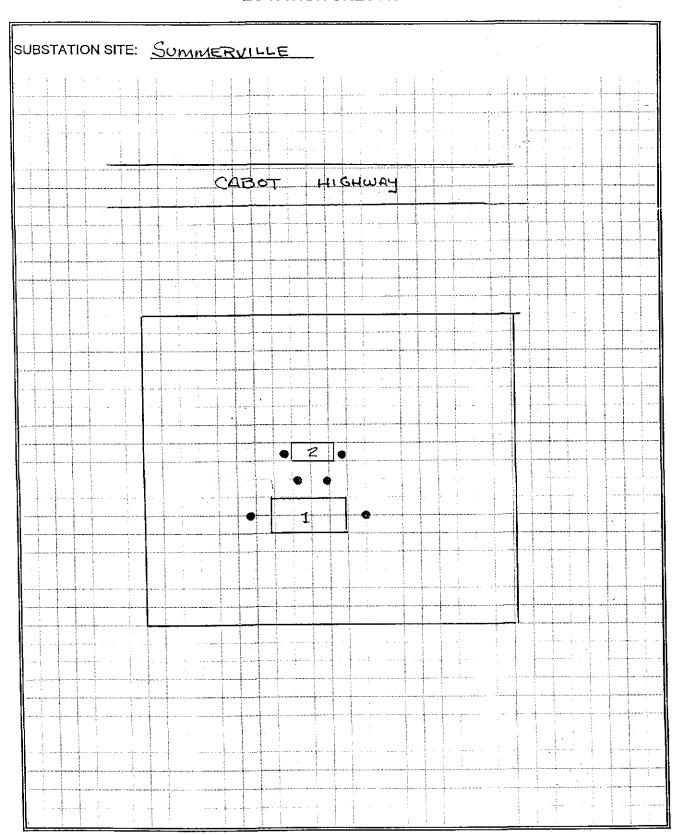
SUBSTATION SITE:	Summerville	DATE INSPECTED: April 16,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - P230	Good Condition with very minor alligator	Type B Repair	3
Transformer	Good Condition with very minor alligator cracking and one hairline crack.		
	(42MPa)		
#2 -SMV-01	Fair Condition with the top edge of the	Type D Repair	2
-R-347	concrete deteriorated and scaling on]
Recloser	surface of top of pad.		
			
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











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Sunnyside

DATE INSPECTED: April 15,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - No #	Good Condition. The surface has some		4
Low Voltage	minor roughness but structural sound		
Structure	(28MPa)		
#2 - No #	Good Condition. The surface has some		4
Not in Use	minor roughness but structural sound (38MPa)		
#3 - Sun-02-BP	Good Condition. The surface has some		4
Low Voltage	minor roughness but structural sound		
#4 - Sun-01-B Breaker	Good Condition (38MPa)		4
#5 - Sun-01-BP	Fair to Good Condition. There appears to	Future Monitoring and an eventual	4
Low Voltage	have been a resurface applied to the top.	replacement of the concrete cap.	
Structure	There are several hollow areas which indicates a bonding problem between the old & new concrete.		
#6 - Sun-03	Good Condition		4
-R515			
Recloser			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years

No corrective action or maintenance required at this time





SUBSTATION SITE:	Sunnside	_DATE INSPECTED:	April 15,2002

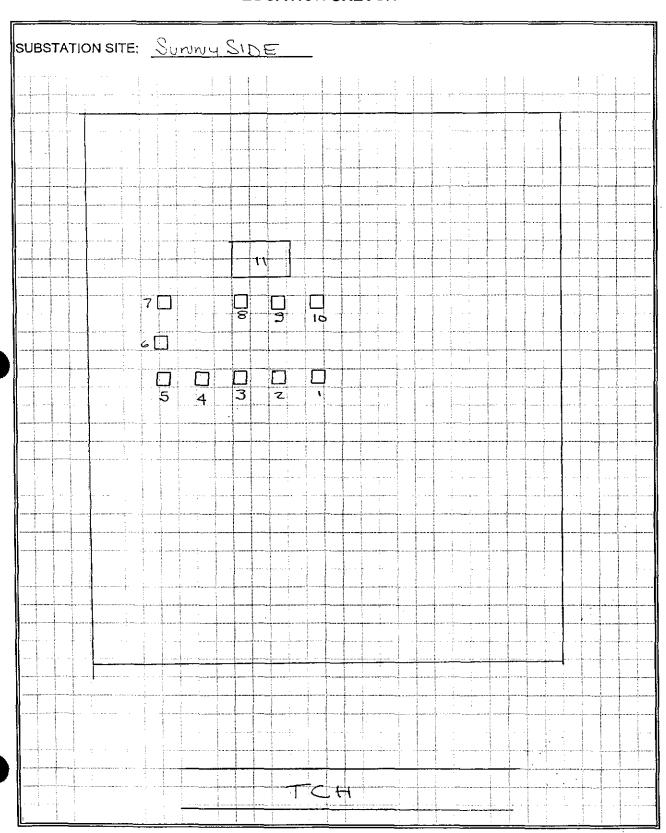
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - Sun-03-BP	Fair to Good Condition. There appears to	Future Monitoring and an eventual	4
Low Voltage	have been a resurface applied to the top.	replacement of the concrete cap.	
Structure	There are several hollow areas which		
	indicates a bonding problem between the		
	old & new concrete.		
#8 - No #	Good Condition (36MPa)		4
Low Voltage			
Structure			
#9 - No #	Good Condition		4
Metering Tank			_
#10 - No #	Good Condition (40MPa)		4
Low Voltage			
Structure			
#11 - P348	Good Condition (38MPa)		4
Transformer			
		-	
			_

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years

No corrective action or maintenance required at this time







BURIN PENNISULA

BAY L'ARGENT
GARNISH
GRAND BEACH
GREEN HILL
LAURENTIAN
LINTON LAKE
MARYSTOWN
MONKSTOWN
SALT POND SPO SUBSTATION
SALT POND TURBINE YARD
WEST BROOK





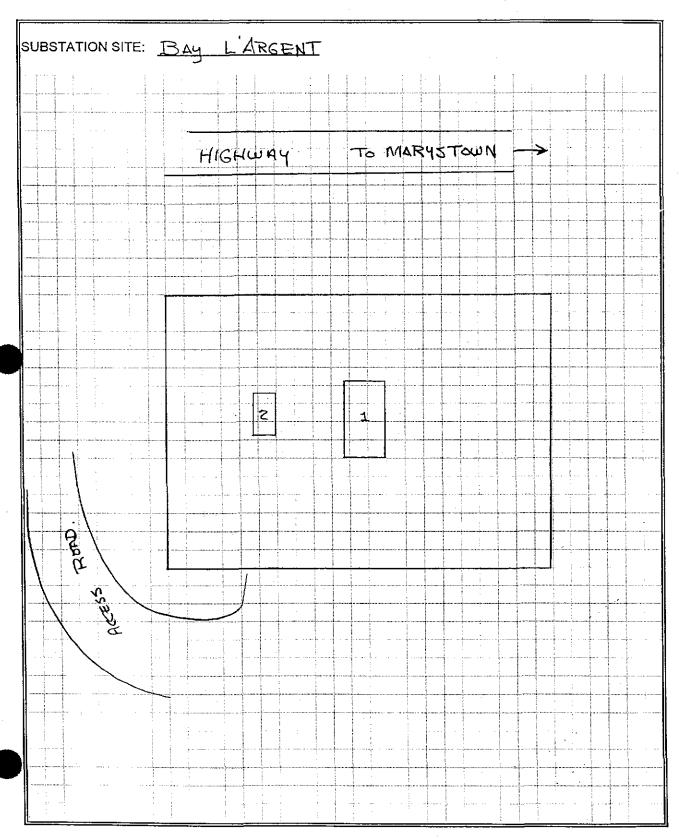
SUBSTATION	SITE: Bay L'Argent	DATE INSPECTED: April 16,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1-P240	Good Condition. Very minor spalling at		4
	several locations.		
	(38MPa)		

Type & No.		
#1 - T1-P240 Transformer	Good Condition. Very minor spalling at several locations.	4
Transformer	several locations.	
	(38MPa)	
]
		1
#2 - BLA-01-R	Good Condition. (36MPa)	4
Recloser		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









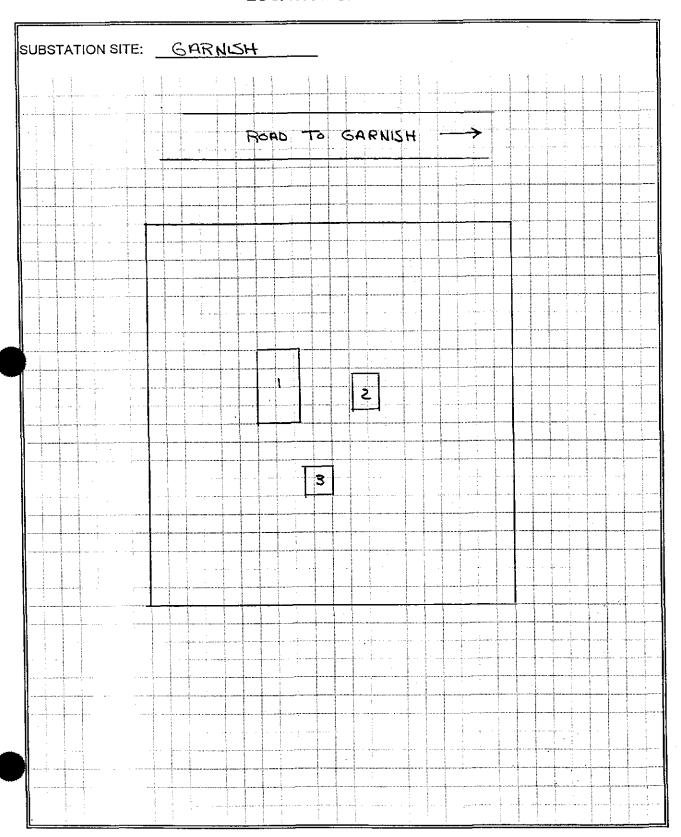
SUBSTATION	SITE: Garnish	DATE INSPECTED April 19,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Fair to Good Condition	Type A Repair	2
	Cement/sand matrix deterioration and exposed and loose aggregate on surface		-
#2 - GAR-01	Good Condition with some minor surface	Type A Repair	3
	chipping. (38MPa)		_
Recloser			
#3 - No #	Good Condition		4
Not in Use			
			-
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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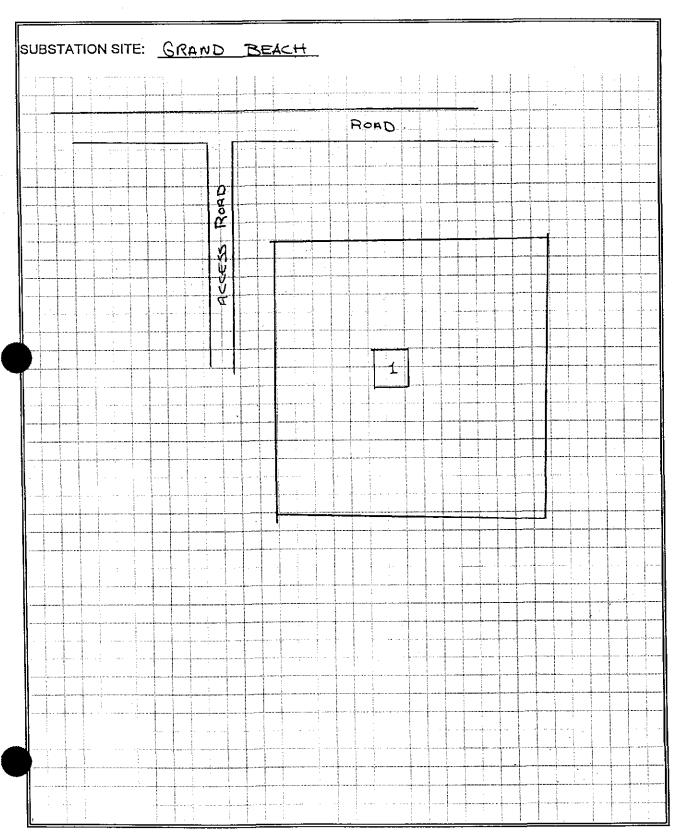


UBSTATION	SITE: Grand Beach	DATE INSPECTED April 19,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
1 - T1-203	Good Condition. (36MPa)		4
ransformer			
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE:	Greenhill	DATE INSPECTED April 19,2002
SUBSTATION SHE.	Greenin	DATE ING! 2012D April 10,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - GRH-T1A	Good Condition. (36MPa)		4
High Voltage			
#2 - GRH	Good Condition. (38MPa)	Type A Repair	3
-BTS1	Very Minor chipping on two corners.		
High Voltage			
	Good Condition. (38MPa)		4
High Voltage			
	Good Condition (38MPa)		4
-LDB			
High Voltage			
#5 - GRH	Good Condition (36MPa)		4
-301L-B			
Oil Breaker			
H			
110 000 000			4
#6 - GRH-305 -LGS	Good Condition		4
High Voltage			
ingii voltage			
11			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



#12 - GRH-03 Good Condition. (38MPa)

Oil Breaker



4

SUBSTATION	SITE: Greenhill	DATE INSPECTED April 19,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - GRH	Good Condition. (36MPa)		4
-305L-B			<u>.,</u>
Oil Breaker			
	Good Condition. (40MPa)		4
-LDL			
High Voltage			
	·		
#9 - GRH-T1	Good Condition. (32MPa)		4
-P-282	<u> </u>		
ransformer			
#10 - GRH-T2	Good Condition. (38MPa)		4
P-310			
Transformer			
#44 CDU	Cood Condition (4014De)		4.
#11 - GRH -CAP-D	Good Condition. (40MPa)		4.
Low Voltage			
LOW VOILage		<u> </u>	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION	SITE: Greenhill	DATE INSPECTED April 19,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good Condition. (40MPa)		4
-B	M=,,,,		
Oil Breaker			
	Good Condition. (38MPa)	Type A Repair	3
-D	Some minor cement/sand matrix		
Low Voltage	deterioration along chamfered edge.		
	·		
#15 - GRH- 02	Good Condition. (36MPa)		4
-B	Cood Condition: (Comm a)		
Oil Breaker			
	Good Condition. 42MPa)		4
-BP			
Low Voltage			
#17 CBU 04	Cood Condition (40MPs)		4
#17 - GRH-01 -B	Good Condition. (40MPa)		
Oil Breaker			
On Dicaker			
#18 - No #	Good Condition. 38MPa)		4
Low Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	the correction action or maintenance required at this time	





SUBSTATION SITE:	GREEN HILL
	/ GAS TURBINE /
	BLDG.
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SUBSTATION SITE:	Laurentian	DATE INSPECTED April 18,2002	
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Fdn/Pad Type & No.			Priority Rating
#1 - LAU-02	Good Condition		4
-DL	Very minor alligator cracking		
Low Voltage	(40MPa)		
Structure			-
#2 - LAU-02-R	Good Condition (40MPa)		4
Recloser			
#3 - LAU-01-R	Good Condition (38MPa)		4
Recloser			
			4
#4 - LAU-01	Good Condition.	Future monitoring	
-BP	There is some minor cement/sand matrix		
Low Voltage Structure	deterioration starting show.		
WE LALLTI	Poor Condition. The top is deteriorated to	Type D Repair	1 1
Low Voltage	a state where aggregate is exposed and	13pc D Repair	
Structure	the sides are chipped away. The comers		<u></u>
Graduit	near the anchor bolts are deteriorated.		
	Concrete below grade is in good condition.		····
#6 - No #	Good Condition. (38MPa)		4_
Metering Tank			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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SUBSTATION SITE:	Laurentian	DATE INSPECTED April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - No #	Good Condition		4
Not in Use			
i			
#8 - No #	Fair Condition	Type A Repair	2
Low Voltage	The cement/sand matrix on the top surface		
Structure	is badly deteriorated with loose aggregate.		
<u>.</u>		130 27	
#9 - T1-P298	Good Condition. (32MPa)		4
Transformer			
#10 - T1A	Good Condition		4
High Voltage	(38MPa)		
Structure			
#11 - BTS1	Good Condition (38MPa)		4
High Voltage	Cook Contains (Contains)		
Structure			
#12 - No #	Good Condition. (40MPa)		4
#12 - No # High Voltage	Good Colidition. (40MPa)		-
Structure			
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Priority Rating	Priority Description	Recommended Time Frame
1 .	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Laurentian	DATE INSPECTED April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Fair to Good Condition	Type A Repair	3
High Voltage	There is some minor cement/sand matrix		
Structure	deterioration & one small concrete spall		
#14 - LAU	Good Condition. (38MPa)		4
-302L-B			
Oil Breaker			
	Fair Condition. One comer has a large	Type A Repair	2
High Voltage Structure	piece of concrete spalled off. Several other corners have exposed & loose aggregate.		
#16 - LAU	Good Condition. (36MPa)	-	4
-305L-B			
Oil Breaker			
#17 - 305-LDB	Fair to Good Condition. There is some	Type B Repair	3
High Voltage	cement/sand matrix deterioration along		
Structure	top edges and several hairline cracks (<1mr	n)	
	extending outward from anchor bolts.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Not in Use Equipment out for repair #3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage	Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#2 - No # Good Condition. (38MPa) Wot in Use Equipment out for repair #3 - LLK-T1-281 Spill pan installed Transformer Could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage #6 - No # Good Condition (40MPa) High Voltage	#1 - LLK-01-R	Good Condition. (40MPa)		4
Not in Use Equipment out for repair #3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage	Recloser			
Not in Use Equipment out for repair #3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage				
Not in Use Equipment out for repair #3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage				
Equipment out for repair #3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage	#2 - No #	Good Condition. (38MPa)		4
for repair #3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage				
#3 - LLK-T1-281 Spill pan installed Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage				
Transformer could not inspect concrete #4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage	for repair			
#4 - LLK-T1 Good Condition. -HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage				
-HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage	Transformer	could not inspect concrete		
-HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage			·	
-HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage				
-HGS High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage High Voltage				
High Voltage Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage		Good Condition.		4
Structure #5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage				
#5 - No # Good Condition (42MPa) High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage	High Voltage			
High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage	Structure			
High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage				
High Voltage Structure #6 - No # Good Condition (40MPa) High Voltage	#5 - No #	Good Condition (42MPa)		4
Structure #6 - No # Good Condition (40MPa) High Voltage				
High Voltage				
High Voltage				
High Voltage	ļi.			
High Voltage	#6 - No #	Good Condition (40MPa)		4
		Total Containent (1900) by		
Structure	Structure			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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Linton Lake _____ DATE INS

DATE INSPECTED: April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - No #	Good Condition		4
High Voltage	(38MPa)		
Structure			
#'s 8,9,10,11 No #'s	All in Good Condition New foundations installed in the last		4
High Voltage	couple of years.		
Structure	couple of years.		
#'s 12,13,14,15	All in Good Condition		4
No #'s	New foundations installed in the last		
High Voltage	couple of years.		
Structure			
#16 - PL-212-B	Spill pan installed		
Oil Breaker	Could not inspect concrete		
#'s 17,18,19,20	All in Good Condition		4
No #'s	New foundations installed in the last		
High Voltage Structure	couple of years.		
#21 - 212 PT	Poor Condition with numerous cracks and comers spalled off.	Type E Repair	1
	Note: NF Power rep. was not sure if NF Power or Hydro owned this foudati	on.	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



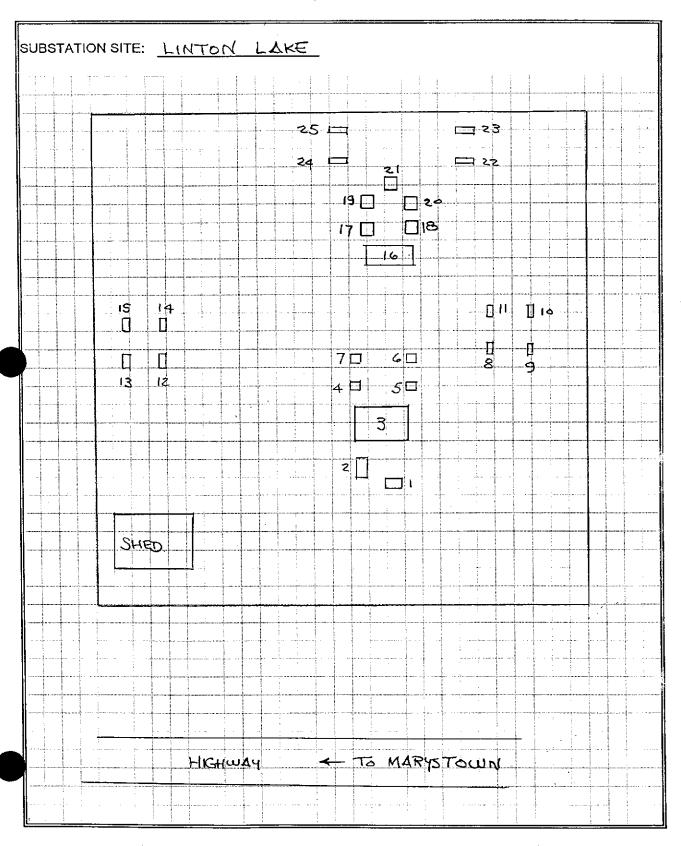


SUBSTATION SITE: Linton Lake DATE INSPECTED: April 18,2002			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#'s 22,23,24,25 No #'s	All in Good Condition		4
No #'s	New foundations installed in the last		
High Voltage	couple of years.		
Structure			
:			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









			DATE INCRECTED, April 49 2002
SUBSTATION SITE:	Marystown	4	DATE INSPECTED: April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - MSY-01	Good Condition. (38MPa)		4
- BP			
Low Vpltage			
Structure			
#2 - MSY-01	Good Condition with one minor spall	Type A Repair	3
-R-424	on one comer.		
Recloser			
#3 - MSY-02	Good Condition. (38MPa)		4
-R-384			
Recloser			
		·	
#4 - MSY-02	Fair to Good Condition	Type B Repair	3
-BP	There are two hairline cracks (<1mm)		
Low Voltage		1000	
Structure			
#5 - MSY-03	Good Condition	Future Monitoring	4
-R	Very minor shipping along top edges		
Recloser			
#6 - MSY-04	Fair Condition. There are several cracks	Type B Repair	3
-DL	from top surface out to sides (<1mm)		
Low Voltage			
Structure			
1			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:

Marystown

DATE INSPECTED: April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - MSY-04	Good Condition	Future Monitoring	4
-R	Very minor shipping along top edges		
Recloser	(39MPa)		
#8 - NO #	Good Condition	Future Monitoring	4
Metering Tank	Very minor shipping along top edges (38MPa)		
#9 - No #	Good Condition ((40MPa)		
Low Voltage			
Structure			
W10 771 044			4
#10 - T1-311	Good condition. There is some cement/sand	Puture Monitoring	- +
Transformer	matrix deterioration and there appears to have been an extension added to one side		
	of the pad.		
#11 - 308L-A	Fair to Good Condition. Two Hairline cracks	Type B Repair	3
High Voltage	from middle of top surface to sides		
Structure	(40MPa)		
#12 - T1-A	Fair to Good Condition. Two Hairline cracks	Type B Repair	3
High Voltage	from middle of top surface to sides	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Structure	(40MPa)		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





			Date 24
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
13 - No #	Fair to Good Condition. Two Hairline cracks	Type B Repair	3
igh Voltage	from middle of top surface to sides		
tructure	(40MPa)		
14 - 300L-A	Good Condition with exception of one	Type A Repair	3
ligh Voltage	corner which is chipped away with		
tructure	exposed aggregate.		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE: MARYSTOWN				
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			6 7 8 9	
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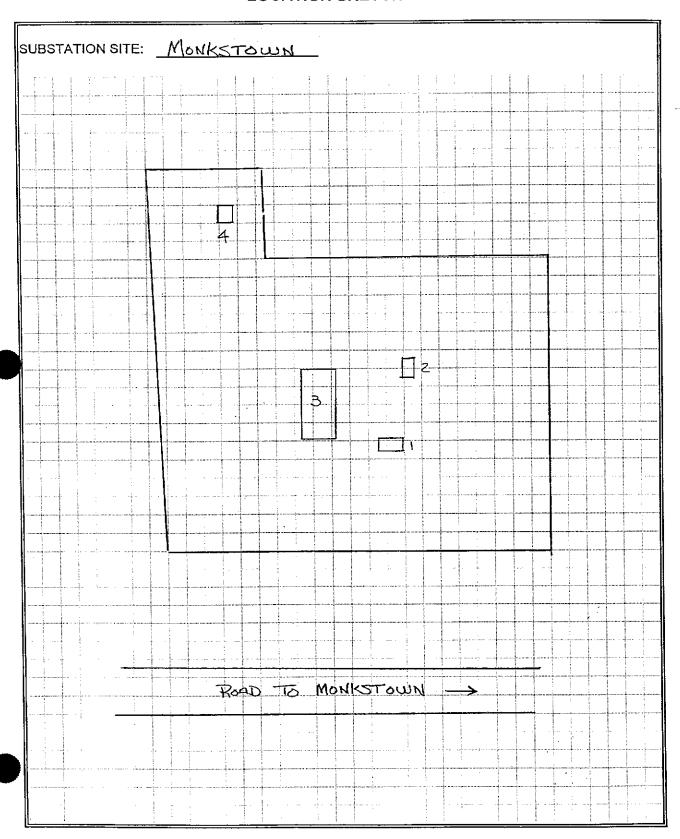


Recloser #2 - MKS-02 Good Condition. (40MPa) -R Recloser #3 - MKS-T1 Good Condition. (38MPa) -P321 Transformer #4 - No # 1mX1m concrete pad that was poured on PT Structure ground surface and not backfilled around. Type D recommended if there excessive amount of loose contributions.	ns Priority Rating	Recommendations	General Condition	Fdn/Pad Type & No.
#2 - MKS-02 Good Condition. (40MPa) -R Recloser #3 - MKS-T1 Good Condition. (38MPa) -P321 Transformer #4 - No # 1mX1m concrete pad that was poured on PT Structure ground surface and not backfilled around. Type A Repair at a minimum value of the preparence of th	4		Good Condition. (42MPa)	#1 - MKS-01
Recloser #3 - MKS-T1 Good Condition. (38MPa) -P321 Transformer #4 - No # 1mX1m concrete pad that was poured on PT Structure ground surface and not backfilled around. Type A Repair at a minimum version of the top surface and edges has severe excessive amount of loose corescaling. The top 200mm on the sides encountered during the preparence has severe deterioration of the cement/sand the type A repair.				
Recloser #3 - MKS-T1 Good Condition. (38MPa) -P321 Transformer #4 - No # 1mX1m concrete pad that was poured on PT Structure ground surface and not backfilled around. Type A Repair at a minimum version of the cement/sand the type A repair.	4		Good Condition. (40MPa)	#2 - MKS-02
#4 - No # 1mX1m concrete pad that was poured on Type A Repair at a minimum vortex ground surface and not backfilled around. Type D recommended if there top surface and edges has severe excessive amount of loose context scaling. The top 200mm on the sides has severe deterioration of the cement/sand the type A repair.				-R
#4 - No # 1mX1m concrete pad that was poured on Type A Repair at a minimum volume of the top surface and not backfilled around. Type D recommended if there excessive amount of loose contact scaling. The top 200mm on the sides has severe deterioration of the cement/sand the type A repair.	4		Good Condition. (38MPa)	
PT Structure ground surface and not backfilled around. Type D recommended if there The top surface and edges has severe excessive amount of loose cor scaling. The top 200mm on the sides encountered during the prepar has severe deterioration of the cement/sand the type A repair.				
The top surface and edges has severe excessive amount of loose cor scaling. The top 200mm on the sides encountered during the prepar has severe deterioration of the cement/sand the type A repair.		Type A Repair at a minimum with a		#4 - No #
	oncrete	Type D recommended if there is excessive amount of loose concrete encountered during the preparation for the type A repair.	ground surface and not backfilled around. The top surface and edges has severe scaling. The top 200mm on the sides has severe deterioration of the cement/sand	PT Structure

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











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Salt Pond (SPO Substation) DATE INSPECTED April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
1 - SPO-02	Good Condition. (42MPa)		4
-BP			
ow Voltage			
#2 - SPO-02	Good Condition. (40MPa)		4
-R-343	Cood Condition. (10th C)		
Recloser			
#3 - SPO-01-	Good Condition. (42MPa)		4
Recloser	Good Condition: (42Min a)		
1,00,000			
1,			
#4 - SPO-01	Good Condition. (40MPa)		4
-DL	Odda Odnakion. (10thi a)		
Low Voltage			
		- 144	
•		·	
	(40140-)		4
#5 - SPO-03 -R-510	Good Condition. (40MPa)		
-10-510			
#6 - SPO-03	Good Condition. (42MPa)		4
-BP			
Low Voltage			
Į		<u> </u>	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE	:-

Salt Pond (SPO Substation)

DATE INSPECTED April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - SPO-T1	Good Condition		4
-D			
Low Voltage	44.6		-
			- - -
#8 - 2733	Good Condition. (40MPa)		4
Metering Tank			_
#9 - SPO-T4	Good Condition	Type A Repair	3
-B	Several areas with minor honeycombing		
Synix Breaker			
	Good Condition. (38MPa)		4
Transformer			
#11 - No #	Good Condition (36MPa)		4
High Voltage			
#12 - No #	Fair to Good Condition	Type A Repair	3
High Voltage	Some cement/sand Matrix deterioration and scaling on one corner.		_
		1	
			\neg

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Salt Pond (SPO Substation)	DATE INSPECTED	April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - No #	Good Condition. (38MPa)		4
High Voltage			
#14 - SPO	Good Condition (37MPa)		4
-308-L-DB			
High Voltage			
#15 - SPO	Good Condition		4
-308L-B			
Synix Breaker	•		·
#16 - No #	Good Condition. (40MPa)		4
High Voltage			
	<u> </u>		
#17 - SPO	Good Condition (40MPa)		4
-TL219-DL			
High Voltage			
			·
#18 - SPO	Good Condition. (44MPa)		4
-TL219-B Synix Breake			
Syma bicake			
	1		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





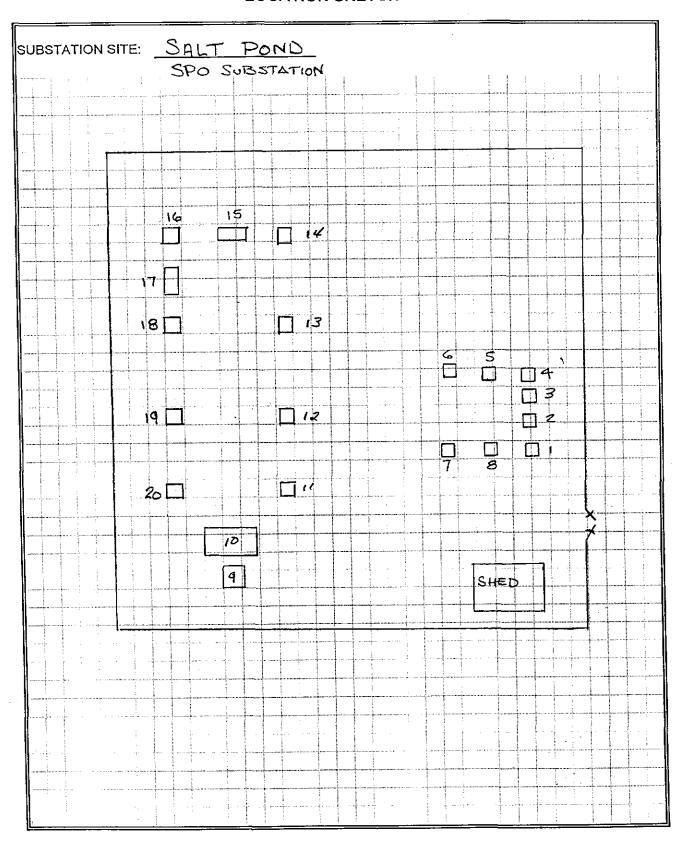
SUBSTATION SITE:	Salt Pond (SPO Substation)	DATE INSPECTED April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - No #	Fair to Good Condition.	Type A Repair	3
High Voltage	Some cement/sand matrix deterioration		-
#20 - SPO-T4	Good Condition. (44MPa)		4
-A High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE:

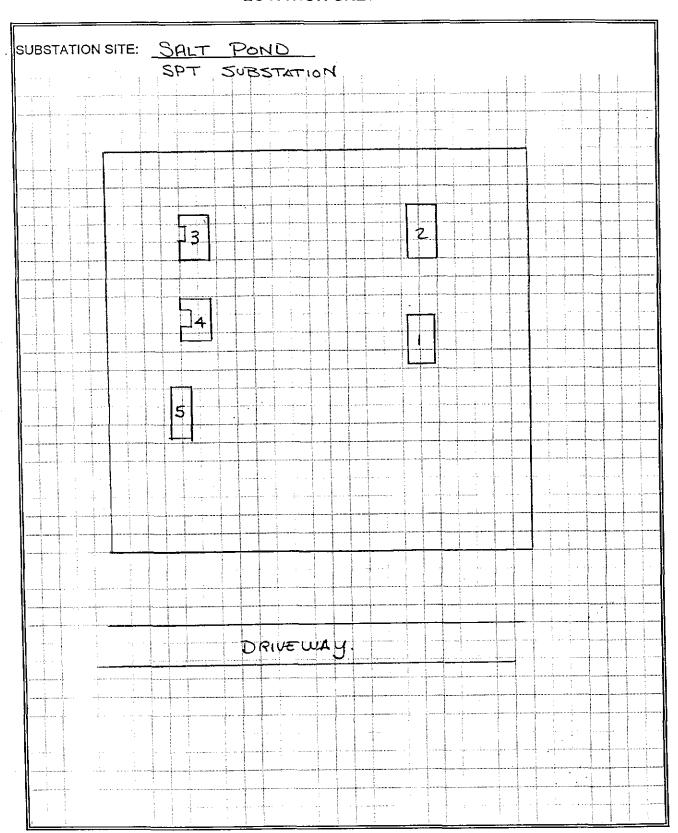
Salt Pond (SPT Substation) DATE INSPECTED April 18,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - No # Fair to Good with some alligator cracking		Type B Repair if structure is to be used	3
Not in Use	and several hairline cracks(<1mm)	again	
#2 - SPT-T1	Fair Condition. Two corners have cracking	Type C Repair	2
Transformer	(>1mm) that extends fully across the		
	comer.		
	The remainer of the pad is in Good Condition		
#3 - SPT-301L	Poor Condition. There are excessive	Type E Repair Total replacement of	1
-B	amounts of cracking (>1mm) throughout	foundation with correct foundation type	
Dil Breaker	the foundation which has compomised	for this equipment.	
	the structural integrity of the concrete.	There appears to be a settlement problem	
	The equipment on the foundation appears	with the foundation. The underlying	
	to be larger than it was designed for.	material should be inspected.	1
#4 - SPT-302L	Poor Condition. There are excessive	Type E Repair Total replacement of	1
-B	amounts of cracking (>1mm) throughout	foundation with correct foundation type	
Oil Breaker	the foundation which has compomised	for this equipment.	
	the structural integrity of the concrete.	There appears to be a settlement problem	
		with the foundation. The underlying	
		material should be inspected.	
#5 - No #	Major cracks along length of pad & across	Should be replaced if it is required in	
Not in Use	the end.	the future.	
		<u> </u>	ł

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE: Salt Pond (Turbine Yard) DATE INSPECTED April 18,2002					
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating		
#1 - SPT-T3	Good Condition. (38MPa)		4		
Transformer			4		
			-		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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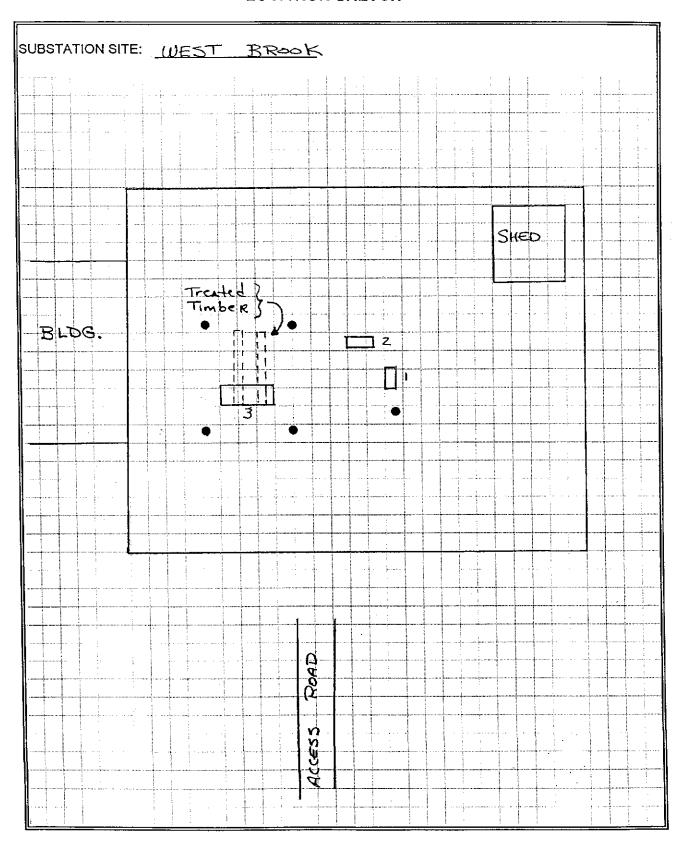
SUBSTATION SITE:	West Brook	DATE INSPECTED: April 18,2002	
			_

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - No #	Poor Condition with large cracks (>1mm)	Not suitable to be used in future.	
Not in Use	and scaling on surface.		
#2 - No # Not in Use	Good Condition		4
Not in Ose			
#3 - No #	The tranformer is sitting on large timbers	Not suitable to be used in future.	
Not in Use	that have been placed near the concrete pad with one end of the timbers sitting		
	on the pad. The concrete is in poor condition with major scaling on the surface.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







WEST COAST

GRAND FALLS AREA DEER LAKE AREA STEPHENVILLE AREA

GRAND FALLS AREA

BISHOP'S FALLS
BOTWOOD
BUCHAN'S TERMINAL STATION
GRAND FALLS
INDIAN RIVER
LEWISPORTE
NEW GRAND FALLS
NOTRE DAME JUNCTION
RATTLING BROOK
SPRINGDALE





SUBSTATION SITE:

Bishop's Falls

DATE INSPECTED: 7-May-02

	West		-1
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Rough finish on top surface of pad,		4
02-BP	otherwise pad is in good condition (34 Mpa)		_
Structure			
Low Voltage			
#2 - BFS-	One minor hairline crack that extends	Type B Repair	3
02-R1	down approx. 100mm with less than 1mm		
Recloser	separation, and associated alligator		_
	cracking also present (44 Mpa).		
#3 - BFS-	Four hairline cracks present (located	Type B Repair	2
1-R1	midway across each edge) that extend		
, kecloser	down 150mm with less than 1mm		
	separation. Minor alligator cracking and		
	scaling also present on top surface		
	(46 Mpa).		
#4 - BFS-	Four hairline cracks present (located	Type C Repair	2
01-BP	midway across each edge) that extend		_
Structure	down 250mm with approx. 1mm		
Low Voltage	separation (29 Mpa).		
#5 - BFS-	Five hairline cracks with approx.	Type C Repair	2
T1-DL	separation of cracks 2mm, also alligator		
Structure	cracking present on top surface of pad		
	(34 Mpa).		
#6 -	Six hairline cracks present that extend	Type C Repair	2
Metering	down approx. 325mm and have approx.		
Tank	2mm separation. Associated alligator		
	cracking also present on top surface		
	(50 Mpa).		
lj.			<u> </u>

Priority Rating	Priority Description Immediate corrective action required	Recommended Time Frame within 1 year.
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE: Bishop's Falls DATE INSPECTED: 7-May-02
West

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - Not In	Six hairline cracks present that extend	Type C Repair if this pad is to be used	2
Use	down approx. 325mm and have approx.	again	
	2mm separation. Associated alligator		
***	cracking also present on top surface		
	(51 Mpa).		
#8 -	Four hairline cracks present (located	Type C Repair	2
Structure	midway across each edge) that extend		
Low Voltage	down 250mm with approx. 2-3mm		
	separation. Minor alligator cracking also		
	present on top surface (28 Mpa).		
#9 - BES-T1	Good condition (28 Mpa).		4
Transformer		100	•
200305			
-			
#10 - BFS-	Good condition (29 Mpa).		4
T1-A			
Structure			
High Voltage			
#11 - BFS-	Minor scaling present on top surface of		4
136L-B	pad. Remainder of pad is in good		
Oil Circuit	condition (30 Mpa).		
Breaker			
		4	
#40 DEC	Four heiding arrely prepart (located	Type R Pengir	2
#12 - BFS- 132-DB	Four hairline cracks present (located midway across each edge) that extend	Type B Repair	
Structure	down 150mm with less than 1mm		
	e separation. Minor alligator cracking and		
inign voitage	pitting present on top surface of pad		
	(30 Mpa).	-	
II	(Su Ivipa).		1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Bishop's Falls	DATE INSPECTED:	7 - May-02
	141		

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - BFS-	Rough finish on top surface of pad.		4
132L-B	Remainder of pad is in good condition		
Oil Circuit	(29 Mpa).		
Breaker			
#14 - BFS-	Four hairline cracks present (located	Type C Repair	2
BTS-1	midway across each edge) that extend		
Structure	down 200mm with approx. 1mm		
High Voltage	separation (30 Mpa).		
#45 DEC	Cood condition (29 Mag)		4
#15 - BFS- 34L-B	Good condition (28 Mpa).		
عداد عداد عداد عداد الراب عداد عداد عداد عداد عداد عداد عداد عد			
Breaker		1	—— <u> </u>
bieakei			
#16 - BFS-	Rough finish and minor scaling present on		4
134L-DB	top surface of pad. Remainder of pad is in		
Structure	good condition (28 Mpa).		
High Voltage	10		
#17 - BFS-	Two hairline cracks present (located	Type C Repair	.2
133L-B	midway across each edge) that extend		
Oil Circuit	down 200mm with approx. 1mm		
Breaker	separation (44 Mpa).		
#40 550	Six hairline cracks present (located	Type C Repair	2
#18 - BFS-	midway across each edge) that extend	13ho o Loban	
133L-DL			
Structure	down 375mm with approx. 1-2mm		
High Voltage	separation. Minor alligator cracking also present on top surface (28 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

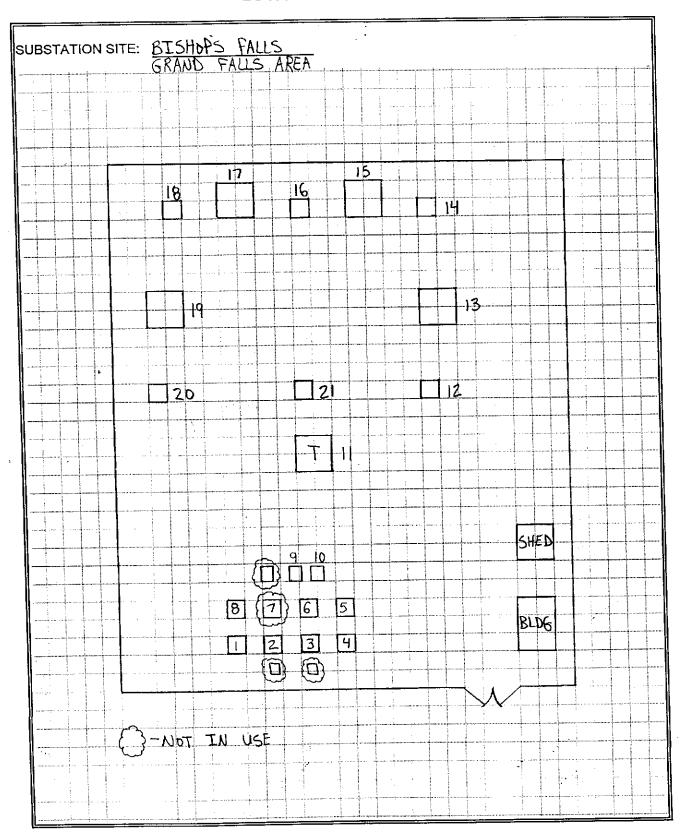


	mor Edition of Gondalin		
SUBSTATIO	N SITE: Bishop's Fails West	DATE INSPECTED: 7-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - Structure High Voltage	Five hairline cracks present (located midway across each edge) that extend down 200mm with less than 1mm separation. Minor alligator cracking also present on top surface (28 Mpa).	Type B Repair	2

ority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4 .	No corrective action or maintenance required at this time	









SUBSTATION SITE:	Botwood	DATE INSPECTED:	7-May-02
	West	_	

Type & No.	General Condition	Recommendations	Priority Rating
#1 - BOT-	Good condition (28 Mpa).		4
02-DL			
Structure			
Low Voltage			
#2 - BOT-	Good condition (35 Mpa).		4
02-R1			•
Recloser			
#3 - BOT-	Faint alligator cracking present on top		4
٦3-R1	surface of pad. Remainder of pad is in		
closer	good condition (41 Mpa).		
			· .
#4 - BOT-	Six hairline cracks present that extend	Type C Repair	1 1
03-BP	down approx. 325mm and have approx.		· .
Structure	3mm separation. Associated alligator		
Low Voltage	cracking also present on top surface. One		
	corner of pad has potential to separate]
	(42 Mpa).		
#5 - BOT-	Hairline cracks present that extend down	Type C Repair	2
01-BP	approx. 250mm and have approx.		<u> </u>
Structure	separation of 1mm. Associated alligator]
High Voltage	cracking present throughout top 100mm		1
	of pad (42 Mpa).		_
#6 - BOT-	Good condition (44 Mpa).		4
01-R1			
Recloser			1
		Many .	1
			1
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Priority Rati	ng Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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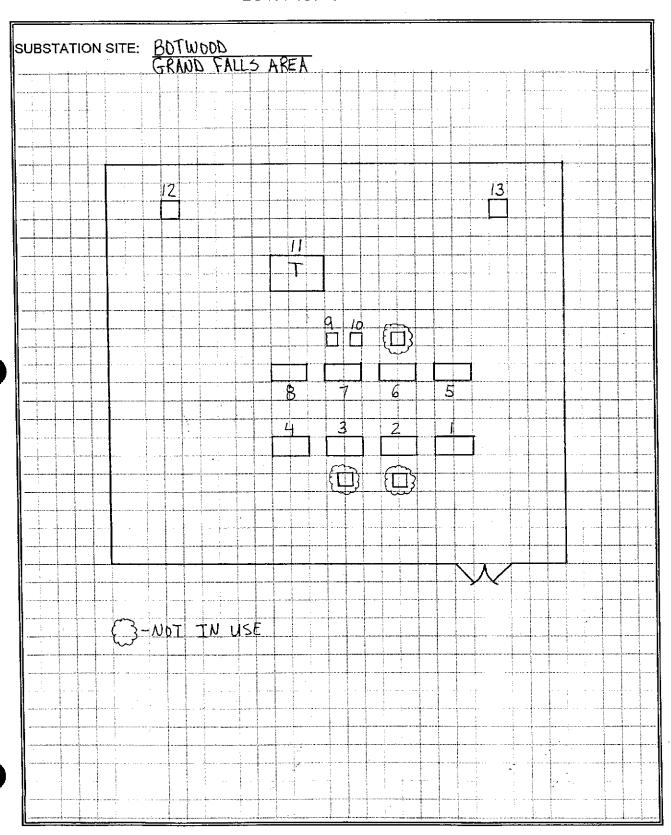
SUBSTATION SITE:	Botwood	DATE INSPECTED:	7-May-02	
	West			,
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	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 -	Four hairline cracks present (located	Type C Repair	2
Metering	midway across each edge) that extend		
Tank	down 300mm with approx. 1mm		
	separation. Faint alligator cracking also		
	present on top surface (28 Mpa).		
#8 - BOT-	Top surface of pad shows signs of pitting,	Type A Repair	1
T1-DL	weathering, and eroding to a depth of		
Structure	25mm. Four corners of pad are spalled		
	with exposed aggregate (28MPa)		
#9 - T1	Faint alligator cracking present and sides	Type A Repair	3
1	of pad (29 Mpa).	.1kaaka	
200280			
200280			
#10 - BOT-	Six hairline cracks present that extend	Type C Repair	2
T1-A	down approx. 325mm and have approx.		
Structure	1-2mm separation. Associated alligator		
	cracking also present on top and sides		
g	of pad (34 Mpa).		
#11 - BOT-	Three hairline cracks present that extend	Type B repair	2
134L-GS	down 150mm with less than 1mm		
Structure	separation. Minor alligator cracking on		
High Voltage	e top and sides of pad (28 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









Fdn/Pad Type & No.	Buchans Terminal Station West General Condition	DATE INSPECTED: 2-May-02 Recommendations	
Type & No.	General Condition	Recommendations	
#4 DUIC			Priority Rating
#1 - BUC- 02-BP	Good condition (44 Mpa).		4
Structure			
Low Voltage			
#2 - BUC-	Minor scaling on top surface of pad.		4
02-R1	Remainder of pad is in good condition		
	(28 Mpa).		
#3 - BUC-	Good condition (46 Mpa).		4
?-GS			
tructure			
Low Voltage			
#4 - BUC-	Rough finish on top surface of pad.		4
01-R1	Remainder of pad is in good condition		
Recloser	(28 Mpa).		
#5 - BUC-	Good condition (44 Mpa).		4
01-BP			
Structure			
Low Voltage			
#6 - B3T2	Good condition (44 Mpa).		4
Structure			
Low Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



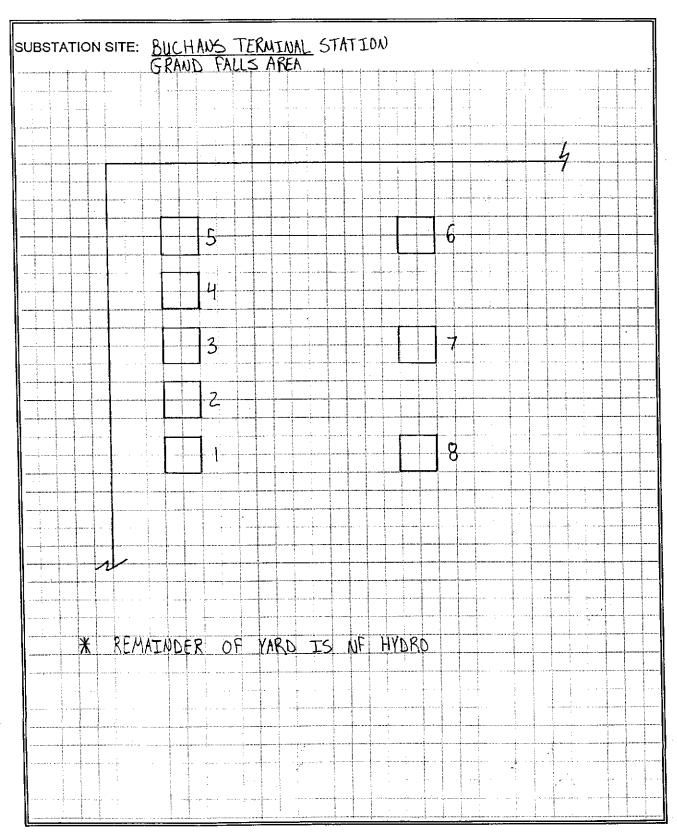


SUBSTATIOI	N SITE: <u>Buchans Terminal Station</u> West	DATE INSPECTED: 2-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - Structure Low Voltage	Good condition (44 Mpa).		4
#8 -	Good condition (45 Mpa)		4
#8 - Structure Low Voltage	Good condition (45 Mpa).		4

<u> Ргіо</u>	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	









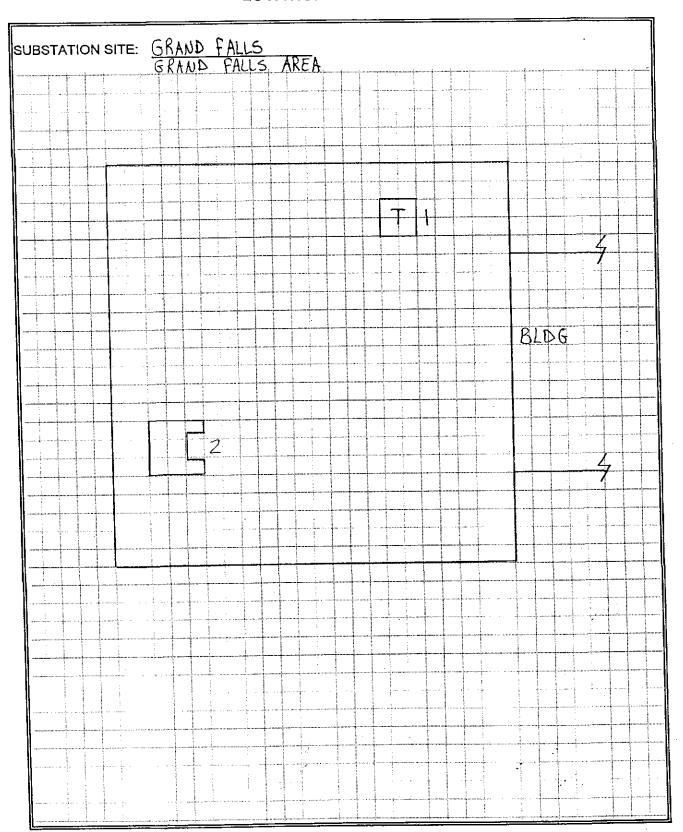


INSPECTION OF CONCRETE PADS & FOUNDATIONS					
SUBSTATIO	N SITE:	Grand Falls West	DATE INSPECTED:	6-May-02	
Fdn/Pad Type & No.		General Condition	Recom	mendations	Priority Rating
#1 - T5 Transformer 200189		dition (24 Mpa).			4
#2 - GFS- 105L-B Oil Circuit Breaker	Good cor	ndition (30 Mpa).			4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







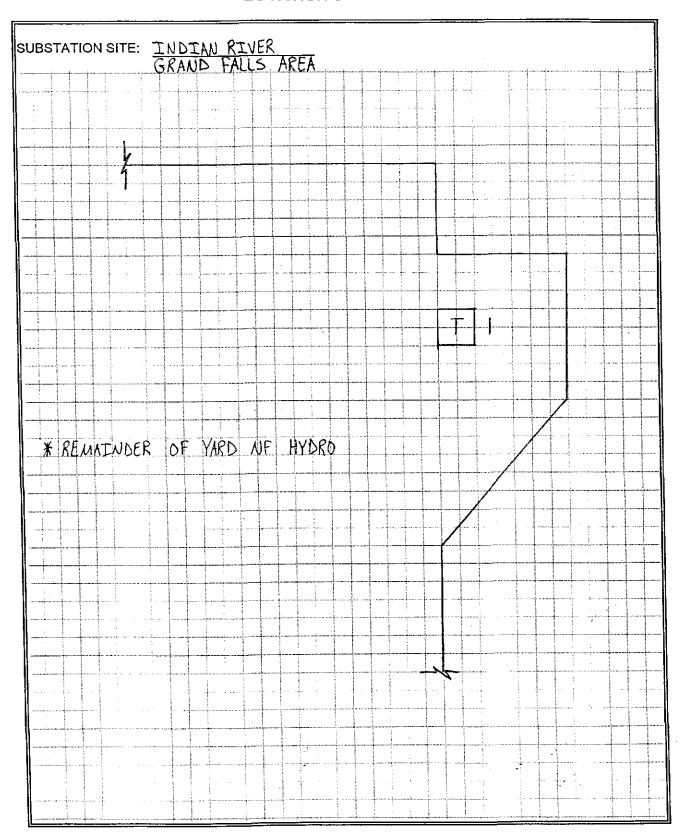


	INSPECTION OF CONCRETI	E PADS & FOUNDATIONS	
SUBSTATIO	N SITE: Indian River	DATE INSPECTED: 1-May-02	
	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#4 D\/IT4	One hairline crack present that extends	Type C Repair	2
#1 - 670-11	down from top edge approx. 175mm.		
Transformer	Gown from top edge approx. 173mm.		
200320	Separation of crack is approx 2-3mm.		.,,
	Remainder of pad is in good condition		
	(34 Mpa).		
			
			
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Priority Rating 1 2 3 4	Priority Description Immediate corrective action required Corrective action required to avoid increasing costs to repair General maintenance item No corrective action or maintenance required at this time	Recommended Time Frame within 1 year within 3 years within 5 years
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SUBSTATION SITE:	Lewisporte	DATE INSPECTED April 24,2002
SUBSTATION SILE.	Lewisporte	

Type & No.	General Condition	Recommendations	Priority Rating
#1 - LEW-T1	Good Condition. (42MPa)	Type A Repair	3
-A	Two corners have minor chipping.		
High Voltage			
#2 - LEW-T1	Good Condition . (40MPa)	Type A Repair	3
-HGS High Voltage	Minor chipping on three corners.		
#3 - LEW-T1	Good Condition. (35MPa)		4
200340 Transformer			
#4 - LEW-02	Fair to Good Condition. (38MPa)	Type A Repair	3
-BP	The top edge near the corners are very		
Low Voltage	rough/coarse. This appears to be a result		
	of the formwork. The pad appears to be relatively new.		
#5 - LEW-02	Good Condition (new concrete)		4
-R1	(38MPa)		
Recloser			
#6 - LEW-04	Fair to Good Condition. (38MPa)	Type A Repair	3
-BP	The top edge near the comers are very		
Low Voltage	rough/coarse. This appears to be a result		
	of the formwork. The pad appears to be		
	relatively new.		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



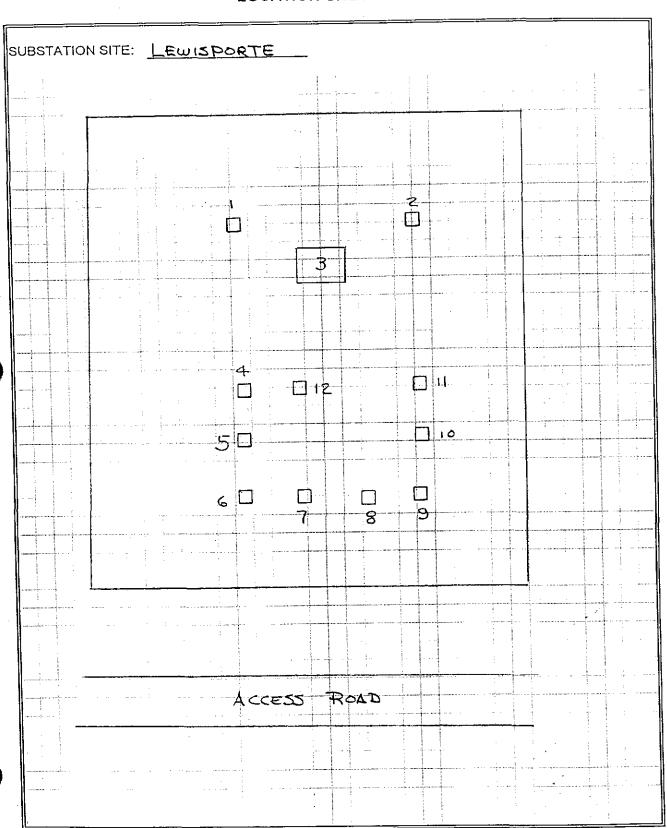


SUBSTATION :	SITE: Lewisporte	_DATE INSPECTED April 24,2002	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - LEW-04	Good Condition. (new concrete)		4
-R1	(38MPa)		
Recloser			
#8 - LEW-03	Good Condition. (new concrete)		4
-R1 Recloser	(38MPa)		
#0 E14/ 02	Fair to Good Condition. (38MPa)	Type A Repair	3
#9 - LEW-03 -BP	The top edge near the corners are very	1,750	
Low Voltage	rough/coarse. This appears to be a result of the formwork. The pad appears to be relatively new.		
+10 - LEW-01	Good Condition. (new concrete)		4
-R1			
Recloser			
#11 - LEW-01	Fair to Good Condition.	Type A Repair	3
-BP	The top edge near the corners are very		
Low Voltage	rough/coarse. This appears to be a result		
	of the formwork. The pad appears to be relatively new.		
#12 - 548	Good Condition. (good condition)		4
Metering Tan			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









#5 - GFS-

#6 - GFS-

09-B Oil Circuit Breaker

02-B Oil Circuit Breaker



3

3

INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 6-May-02 SUBSTATION SITE: New Grand Falls West Priority Recommendations **General Condition** Fdn/Pad Rating Type & No. 2 Type B & C Repairs Alligator cracking present throughout top #1 - GFSand sides of pad. Four hairline cracks 06-BP present (located midway across each side) Structure that extend down approx. 450mm with a Low Voltage separation of 1-2mm. Minor pitting on top surface also present (38 Mpa). 3 Faint alligator cracking on top and sides Type B Repairs #2 - GFSof pad (46 Mpa). 06-B Oil Circuit Breaker 3 Minor scaling and alligator cracking present Type A & B Repairs #3 - GFSon top and sides of pad (50 Mpa). 10-B Oil Circuit Breaker 2 Alligator cracking present throughout top Type B & C Repair #4 - GFSand sides of pad. Four hairline cracks 10-BP present (located midway across each side) Structure Low Voltage that extend down approx. 275mm with a separation of 1mm. Minor pitting on top

Priority Rating 1 2	Priority Description Immediate corrective action required Corrective action required to avoid increasing costs to repair General maintenance item	Recommended Time Frame within 1 year within 3 years within 5 years
. 3 4	General maintenance item No corrective action or maintenance required at this time	

Minor scaling and alligator cracking present Type A & B Repairs

Minor scaling and alligator cracking present Type A & B Repairs

surface also present (52 Mpa).

on top and sides of pad (44 Mpa).

on top and sides of pad (44 Mpa).

POWER



INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION SITE: New Grand Falls DATE INSPECTED: 6-May-02

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Alligator cracking present throughout top	Type B Repairs	2
#7 - GFS-	and sides of pad. Four hairline cracks	1)000100	
09-BP	present (located midway across each side)		7
Structure	that extend down approx. 250mm with a		7 1
Low Voltage	separation of <1mm. Minor pitting on top		7 .
	separation of < mm. Millor pitting on top		
#8 - GFS-	Scaling present on top surface. Three	Type A & B Repairs	2
#8 - GI 3- 08-BP	hairline cracks present (located midway		_1
	across each side) that extend down approx.		
Structure	200mm and have less than 1mm		
Low Voltage	separation (52 Mpa).		
	Separation (oz mpa).		
#9 - GFS-	Minor alligator cracking present on top and	Type B Repairs	3
28-B	sides of pad (36 Mpa).		
il Circuit			
Breaker			4
			3
#10 - GFS-	Minor alligator cracking present on top and	Type B Repairs	
T3-B	sides of pad (44 Mpa).		-
Oil Circuit			
Breaker			-
1			
1144 050	Minor alligator cracking on one area of top	Type B Repair	3
#11 - GFS-	surface of pad (44 Mpa).	Typo D Nopull	
T3-DL	Surface of pad (44 Mpa).		
Structure			7
Low Voltage			7
#12 - GFS-	Minor scaling and faint alligator cracking	Type A Repair	3
07-B	present on top surface of pad (46 Mpa).		
Oil Circuit			
Breaker			_
1			<u> </u>

Priority Rating	Priority Description	Recommended Time Frame
4	Immediate corrective action required	within 1 year
<u>'</u>	Corrective action required to avoid increasing costs to repair	within 3 years
2	·	within 5 years
3	General maintenance item	**************************************
4	No corrective action or maintenance required at this time	



UBSTATION	N SITE: New Grand Falls West	DATE INSPECTED: 6-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
13 - GFS-	Minor scaling and alligator cracking present	Type A & B Repairs	3
2-B	on top and sides of pad (47 Mpa).		
Dil Circuit			
Breaker			
•			
#14 - GFS-	Minor alligator cracking and two hairline	TypeB Repair	3
T2-DL	cracks present on pad (less than 1mm		
Structure	separation) 44 Mpa.		
ow Voltage			
#15 - T3	Good condition (34 Mpa).		4
Transformer			
200299			
			
#16 - T2	Good condition (44 Mpa).		4
Transformer			
200274			
	Latinata analisa an Asa	Type A & B Repairs	2
#17 -	Minor pitting and alligator cracking on top	Type A & D Repairs	
Structure	and sides of pad. One hairline crack		
High Voltage	present that extends down from edge of		
	approx. 300mm with approx. 1mm		
	separation (53 Mpa).		•
#18 - GFS-	Two areas of alligator cracking present on	Type A & B Repairs	2
#16 - GFS- 132L-DB	top surface. One hairline crack that runs		
Structure	from top edge of pad down approx. 300mm		
mannanne	THOME TOD COMO OF PAG MOTTH MPPION		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE: New Grand Falls DATE INSPECTED: 6-May-02

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - GFS- 132L-B	Some areas of pitting on top surface of pad. Minor alligator cracking present on top and	Type A & B Repairs	3
Oil Circuit Breaker	sides of pad (44 Mpa).		
#20 - GFS- 132L-GS	Two areas of alligator cracking present on top surface of pad (41 Mpa).	Type B Repairs	3
Structure High Voltage	•		
#21 - GFS- 130L-B	One area of minor alligator cracking present on top surface of pad (44 Mpa).		4
I Circuit Breaker	present on top surface of pau (44 mpa).		
#22 - GFS- 130L-DL	Alligator cracking present on top surface of pad. Two hairline cracks present that	Type B & C Repairs	2
Structure High Voltage	extend down from top edge of pad approx. 250mm and has less than 1mm separation (48 Mpa).		
#23 - GFS- T2-A	Top surface of pad is not level and has some scaling, alligator cracking, and	Type A Repairs	3
Structure High Voltage	pitting present (44 Mpa).		
#24 - GFS-	Alligator cracking present on top surface of	Type B Repair	2
T3-A Structure High Voltage	pad. Three hairline cracks present that extend down from top edge of pad approx. 250mm and has approx. 1mm separation (48 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
. 3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





#26 - Faint alligator cracking present on top Structure surface. Remainder of pad is in good High Voltage condition (34 Mpa). #27 - Rough finish on top surface of pad with Structure minor pitting and alligator cracking also High Voltage present (45 Mpa). #28 - GFS- Minor scaling on top surface of pad,		SITE: New Grand Falls D West	ATE INSPECTED: 6-May-02	
25 - T1 ransformer 200146 #26 - Faint alligator cracking present on top Structure surface. Remainder of pad is in good High Voltage condition (34 Mpa). #27 - Rough finish on top surface of pad with Structure minor pitting and alligator cracking also High Voltage present (45 Mpa). #28 - GFS- Minor scaling on top surface of pad, T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). #30 - GFS- Areas of faint alligator cracking present T101L-B on sides of pad (45 Mpa).		General Condition	Recommendations	Rating
#26 - Faint alligator cracking present on top Structure surface. Remainder of pad is in good	ransformer	Good condition (34 Mpa).		4
Structure Surface, Remainder of pad is in good	26 -	Faint alligator cracking present on top		4_
#27 - Rough finish on top surface of pad with Structure minor pitting and alligator cracking also High Voltage present (45 Mpa). #28 - GFS- Minor scaling on top surface of pad, T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair 3 T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa).		surface. Remainder of pad is in good		
#27 - Rough finish on top surface of pad with Structure minor pitting and alligator cracking also High Voltage present (45 Mpa). #28 - GFS- Minor scaling on top surface of pad, T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ				
Structure minor pitting and alligator cracking also High Voltage present (45 Mpa). #28 - GFS- Minor scaling on top surface of pad, T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ	1 27 -	Rough finish on top surface of pad with		4
#28 - GFS- Minor scaling on top surface of pad, T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair 3 T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa).		minor pitting and alligator cracking also		
#28 - GFS- Minor scaling on top surface of pad, T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ	High Voltage	present (45 Mpa).		
T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ				4
T1-B otherwise pad is in good condition (45 Mpa) Oil Circuit Breaker #29 - GFS- Areas of pitting present on top surface of Type A Repair T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ		Minor scaling on top surface of pad,		
#29 - GFS- Areas of pitting present on top surface of Type A Repair 3 T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracking present on top surface of Type A Repair 3 #30 - GFS- Areas of faint alligator cracki		otherwise pad is in good condition (45 Mpa)		
#29 - GFS- Areas of pitting present on top surface of Type A Repair 3 T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ				
#29 - GFS- Areas of pitting present on top surface of Type A Repair T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ	Breaker			
T1-DL pad. Remainder of pad is in good Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ	#29 - CES	Areas of pitting present on top surface of	Type A Repair	3
Structure condition (44 Mpa). High Voltage #30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ		pad. Remainder of pad is in good		
#30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ		condition (44 Mpa).		
#30 - GFS- Areas of faint alligator cracking present 101L-B on sides of pad (45 Mpa). SYNIZ				
101L-B on sides of pad (45 Mpa). SYNIZ	#30 - GFS	Areas of faint alligator cracking present		
SYNIZ	1	on sides of pad (45 Mpa).		
				
	SYN17			L

		Recommended Time Frame
Priority Rating	Priority Description	within 1 year
1	Immediate corrective action required	within 3 years
2	Corrective action required to avoid increasing costs to repair	
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



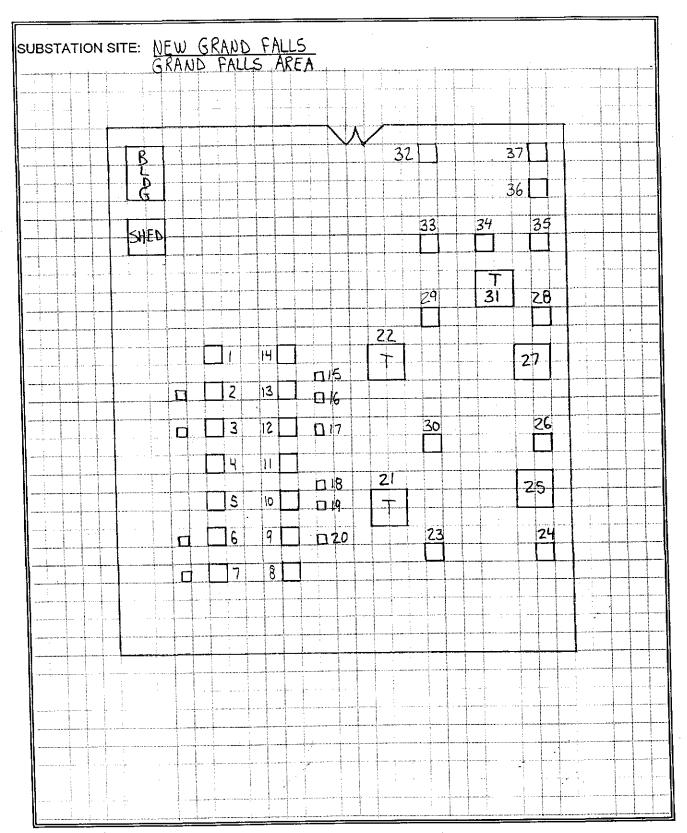


SUBSTATIO	N SITE: New Grand Falls West	DATE INSPECTED: 6-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#31 - GFS- 101L-DL Structure High Voltage	Rough finish and two areas of pitting present on top surface of pad (44 Mpa).	Type A Repair	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
Λ	No corrective action or maintenance required at this time	











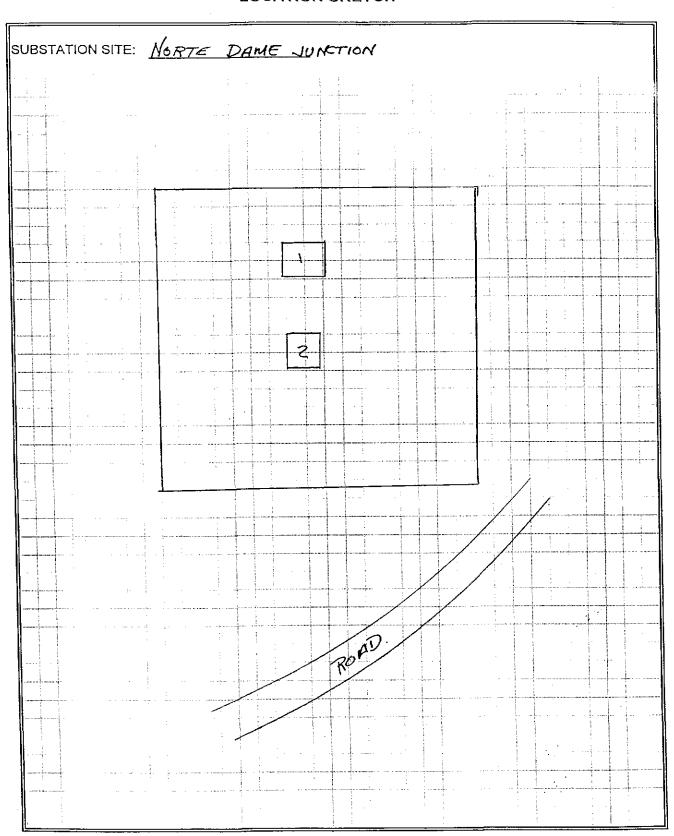
SUBSTATION SITE:	Norte Dame Junction	DATE INSPECTED April 24,2002

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - NDJ-T1	Fair Condition with one side of the pad	Type A Repair	2
P183	with scaling & the top edge being		
Transformer	chipped away		
#2 - No #	Good Condition. (36 Mpa)		4
Not in Use			
			
	1		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











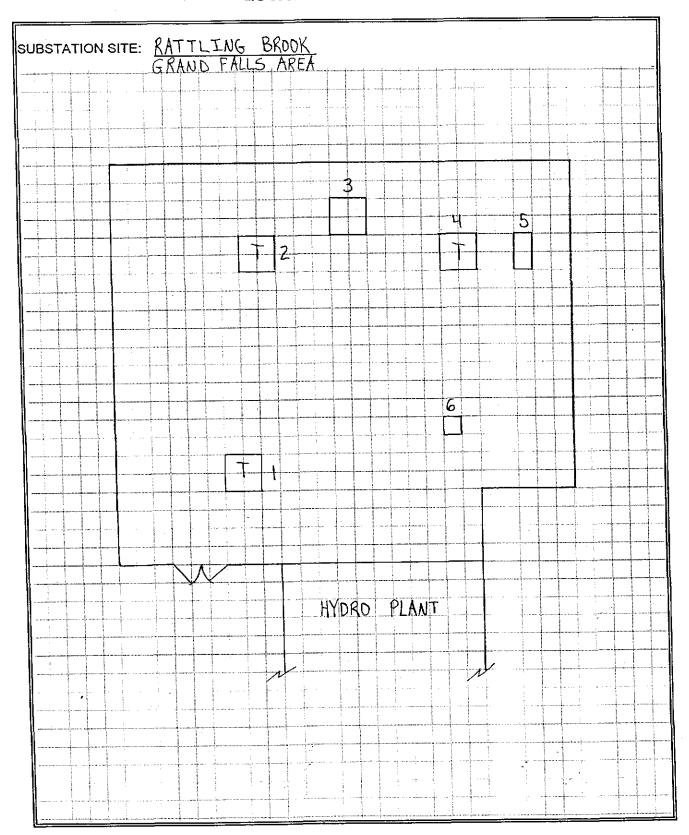
SUBSTATION SITE:	Rattling Brook	DATE INSPECTED:	7-May-02	
	West			

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T2	Spill pan installed under transformer.	Based on limited visibility of concrete	4
Transformer	Small visible area looks okay (28 Mpa).		
	(30 Mpa).		_
		Deced on limited visibility of congrets	4
	Spill pan installed under transformer.	Based on limited visibility of concrete	4
	Small visible area looks okay (28 Mpa).		
200180	(24 Mpa).		
#3 - RBK-	Two areas where small chunks of concrete	Type A Repair	3
"101L-B	are removed from pad (34 Mpa). Remainder		_
Circuit	of pad is in good condition.		_
reaker			
#4 - T4	Spill pan installed under transformer.	Based on limited visibility of concrete	4
	Small visible area looks okay (28 Mpa).		
200113	(36 Mpa).		
#5 - RBK-	Both sections of pad (old & new) are in		4
01-R1	good condition (42 Mpa).		_
Recloser			
#6 - RBK-	Rough finish on top surface of pad.		4
102L-B	Remainder of pad is in good condition		
Sul Hex	(28 Mpa).		
Breaker			_
			_1

Prior	ity Rating	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	









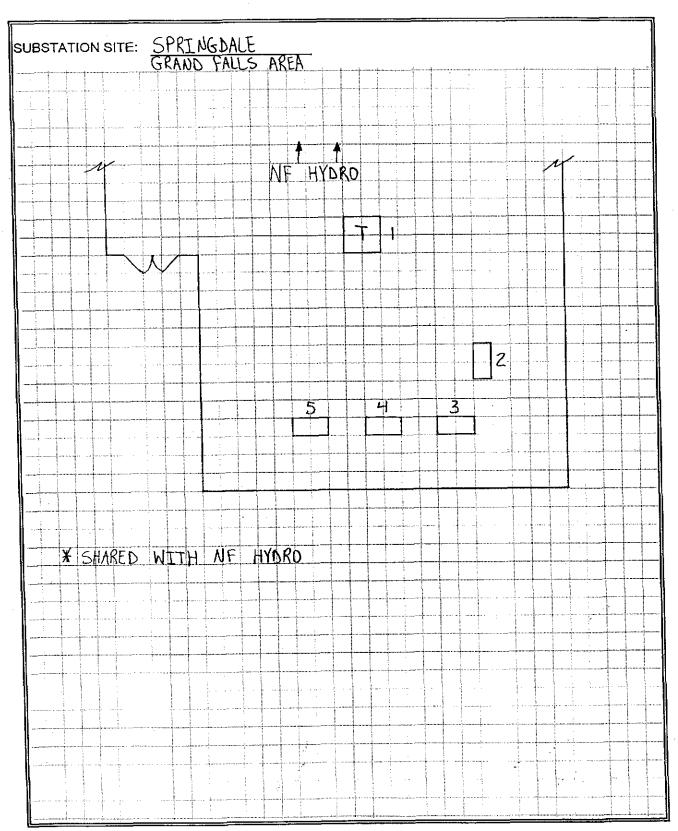


SUBSTATIO	N SITE: Springdale West	DATE INSPECTED: 2-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Good condition (34 Mpa).		4
Transformer			
200347			
#2 - SPR-	One minor area of alligator cracking.	Type B Repair	3
04-R1	Remainder of pad is in good condition		
Recloser	(50 Mpa).		
#3 - SPR-	Area on top edge of pad is eroded with	Type A Repair	2_
<u>13-R1</u>	some aggregate exposed, otherwise pad		
closer	is in good condition (44 Mpa).		
#4 - SPR-	Good condition (44 Mpa).		4
02-R1			
Recloser			
#5 - SPR-	Good condition (46 Mpa).		4
01-R1			
Recloser			

Priori	ity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	







CORNER BROOK AREA

BAYVIEW
DEER LAKE
FRENCHMAN'S COVE
GILLIAM'S
HUMBER
MARBLE MOUNTAIN
MASSEY DRIVE
PASADENA
SEAL COVE ROAD
WALBOURNE'S

#6 - BVS-

358L-B Oil Circuit Breaker Good condition (28 Mpa).



4

INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 26-Apr-02 SUBSTATION SITE: Bayview West **Priority** Recommendations **General Condition** Fdn/Pad Rating Type & No. 1 Type C Repair Hairline cracking throughout top and sides #1 - BVSof pad. Some of these cracks extend down 359L-DB approx. 350-400mm with separation Structure High Voltage between cracks of 2-3mm (28 Mpa). 4 Good condition (31 Mpa). #2 - BVS-359L-B Oil Circuit Breaker 1 Type C Repair #3 - BVS-Alligator cracking present throughout top of pad. Hairline cracking throughout top 359L-DL and sides of pad that extend down approx. Structure High Voltage 500mm with separation between cracks of 3-4mm (34 Mpa). 4 Minor scaling on top surface of pad. #4 - BVS-Remainder of pad is in good condition 357L-B Oil Circuit (28 Mpa). Breaker 1 Alligator cracking present throughout top Type C Repair #5 - BVSof pad. Hairline cracking throughout top 357L-DL and sides of pad that extend down approx. Structure High Voltage 500mm with separation between cracks of 3-4mm (31 Mpa).

Priority Rating	Priority De <u>scription</u>	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



CI.	IDCT	$\Gamma \Lambda T$	ION	SITE	

Bayview West

DATE INSPECTED: 26-Apr-02

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - BVS-	Top portion of pad seems to have	Type A & B Repair for short to medium	1 1
358L-BP	been recapped (approx 75mm thick).	term option and Type D Repair for longer	
Structure	Hairline cracking running down sides of pad	term option which would involve the	<u> </u>
	below recapped area (approx. 300mm	removal of the recap and crack repair	-
	deep). Recapped area also has hairline	below the recap prior to recapping.	1
	cracking and pitting/chipping present in		7
	several areas (34 Mpa).		7
#8 - BVS-	Alligator cracking present throughout top	Type C Repair	1
T1-A	of pad. Hairline cracking throughout top	,	
Structure	and sides of pad that extend down approx.		1
High Voltage	500mm with separation between cracks		~]
	of 3-4mm (28 Mpa).		1
	The state of the s	"	1
#9 -	Rough finish on top surface of pad. Some	Type A Repair	3
ucture	minor pitting in area below base of		
h Voltage	structure. Remainder of pad is in good		1
	condition (27 Mpa).		1
		-	
#10 - T1	Some minor scaling on top surface and one	Type A Repair	3
			4
200307	good condition (35 Mpa).		
			_
		·	_]
#11 - BVS-	Some alligator cracking present throughout	Type C Repair	2
04-DL	top surface of pad. Hairline cracking		_
Structure	throughout top and sides of pad that extend		_
Low Voltage	down approx. 350-400mm with separation		_
	between cracks of 1-2mm (24 Mpa).		<u>.</u>
#12 - BVS-	Minor cooling on ton surface of pad		ļ. <u>,</u>
#12 - 6 V S- 04-R	Minor scaling on top surface of pad. Remainder of pad is in good condition		4
Recloser			-
Recioser	(35 Mpa).		-
			-
		·	

ority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE: Bayview DATE INSPECTED: 26-Apr-02
West

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - BVS-	Minor scaling and pitting on top surface of	Type A Repair	3
01-R	pad. Remainder of pad is in good condition]
	(34 Mpa).		
#14 - BVS-	Scaling on top surface of pad. Hairline	Type C Repair for cracks & Type A Repair	1
01-DL	cracking throughout top surface of pad	for scaling	.] !
Structure	that extend down 350-400mm and have a		-
Low Voltage	separation of 2-3mm (28 Mpa).		
#15 - BVS-	Scaling present on top surface of pad.		4
02-R	Remainder of pad is in good condition		4
Recloser	(45 Mpa).		
			-
#16 - BVS-	Minor scaling and minor alligator cracking	Type A Repair	3
T1-B	present throughout top of pad. Otherwise		_
Oil Circuit	pad is in good condition (31 Mpa).		
Breaker			-
	and the second second	Type A & C Repairs	2
#17 - BVS-	Top surface of pad has minor scaling and	Type A & O Itopans	
T1-D	pitting. Two hairline cracks on top surface of pad that extend down approx. 100mm		_
Structure		_	7
Low Voltage			7
	(25 Mpa).		
#18 - BVS-	Scaling present on top surface of pad.		4
03-R	Remainder of pad is in good condition		_
Recloser	(46 Mpa).		-{
1			_
			<u>.l</u>

Priority Rating	Prio <u>rity Description</u>	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
	No semestive estion or maintenance required at this time	





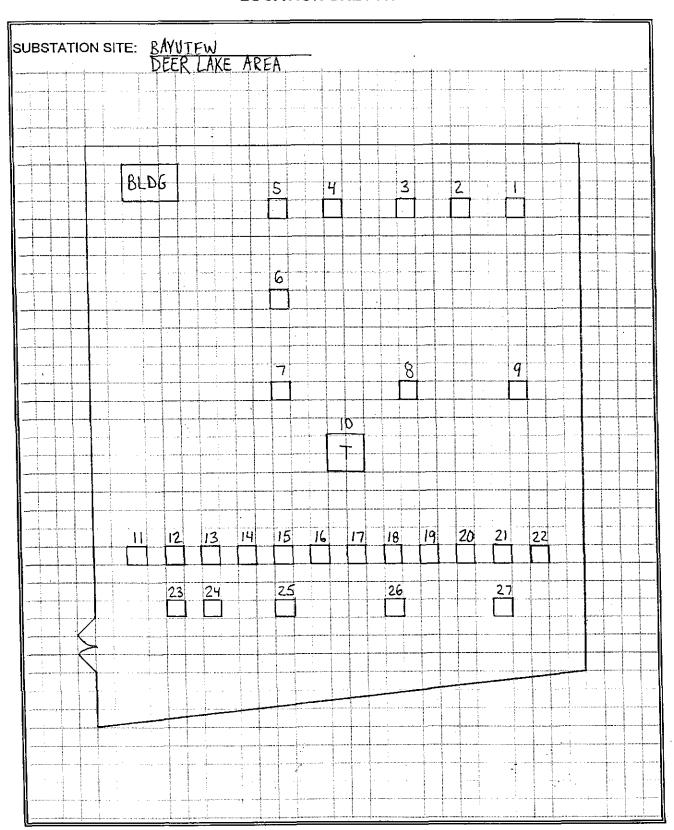
SUBSTATION SITE:	Bayview	DATE INSPECTED:	26-Apr-02
	West		

	vvest		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - BVS-	Top surface of pad shows signs of scaling	Type A & Type C Repair	2
03-BP	and erosion. Minor alligator cracking on top		
Structure	of pad. Three hairline cracks on pad that		
	extend down approx. 50mm with a		
	separation of 1-2mm (28 Mpa).		· ·
	Minor alligator cracking and scaling	Type A Repair	3
Use	throughout top of pad (46 Mpa).		
#21 - Not In	Minor alligator cracking and scaling	Type A Repair	3
Jse	throughout top of pad (48 Mpa).	1 3pc A (Copen	
	ting agricult top of pad (10 thpa).		·
#22 -	Scaling and eroding present throughout	Type A & C Repair	2
Structure	top surface of pad. Alligator cracking and		
Low Voltage	hairline cracking that extend down approx.		
	250-300mm (29 Mpa).		
			-
			-
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Prior	rity Rating	_ Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	











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Deer Lake West

DATE INSPECTED: 1-May-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - DLK-	Minor scaling and alligator cracking present	Type C for cracks & Type A for scaling	2
03-BP	on top surface of pad. Four hairline cracks		
Structure	(located midway across each top edge)		
Low Voltage	that extend down approx. 150mm and have		
_	a separation of 1-2mm (44 Mpa).		
#2 - DLK-	Minor alligator cracking on top surface of	Туре В Repair	3
03-R	pad. Remainder of pad is in good condition		
Recloser	(34 Mpa).		_
#3 - DLK-	One minor hairline crack and very faint	Type B Repair	3
71-R	alligator cracking present on top surface of	Typo D Ropuli	+ -
closer	pad (44 Mpa).		
#4 - DLK-	Minor scaling on top surface of pad.		4
01-BP	Remainder of pad is in good condition		
Structure	(31 Mpa).		
Low Voltage			_
#5 - DLK-	Minor scaling on top surface of pad.		4
04-R	Remainder of pad is in good condition	4.00.00	
Recloser	(41 Mpa).		
#6 -	Four hairline cracks (located midway	Type C Repair for cracks & Type A for	2
Metering	across each top edge) that extend down	minor scaling.	
Tank	approx. 150mm and have a separation of	innor ooding.	
Hank	approx 1-2mm. Minor scaling and alligator		
	cracking also present on top surface		
1	(36 Mpa).		⊣ ¹

Pr	iority Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



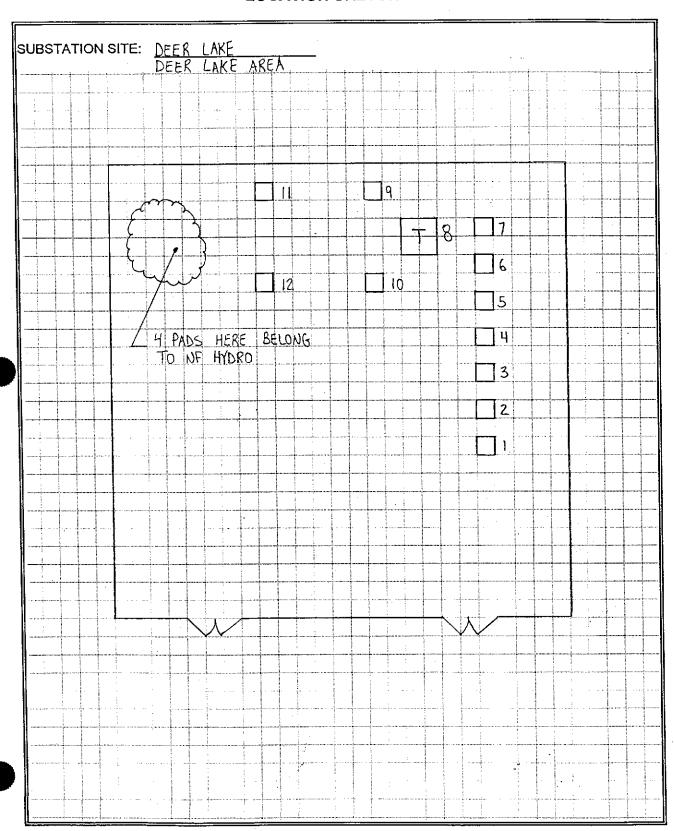


DATE INSPECTED: 1-May-02 SUBSTATION SITE: Deer Lake West **Priority** Recommendations Fdn/Pad **General Condition** Rating Type & No. Type C Repair for cracks & Type A for 2 Four hairline cracks (located midway #7 - DLKacross each top edge) that extend down minor scaling. T1-D approx. 150mm and have a separation of Structure approx 1mm. Minor scaling and alligator cracking also present on top surface (29 Mpa). One minor hairline crack, remainder of pad Type B Repair 3 #8 -T1 Transformer is in good condition (37 Mpa). 200262 3 Minor scaling on top surface of pad. Four Type B Repair for cracking & Type A Repair #9 - DLKhairline cracks (midway across each edge for scaling T1-A of pad) that extend down sides of pad Structure. High Voltage approx. 175mm and have an approx. separation of less than 1mm (29 Mpa). Type B Repair for cracking & Type A Repair Minor scaling on top surface of pad. Four #10 hairline cracks (midway across each edge for scaling Structure High Voltage of pad) that extend down sides of pad approx. 150mm and have an approx. separation of 1mm (35 Mpa). Type B Repair for cracking & Type A Repair 3 Minor scaling and pitting present on top #11 - DLKsurface of pad. Two hairline cracks present for scaling TL225-GS (located midway across top edge of pad) Structure High Voltage that extend down sides of pad approx. 175mm and have less than 1mm separation (29 Mpa). Type B Repair for cracking & Type A Repair 2 Two hairline cracks (located midway #12 across each top edge) that extend down for scaling Structure High Voltage approx. 150mm and have a separation of approx 1mm. Minor scaling and alligator cracking also present on top surface (34 Mpa).

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









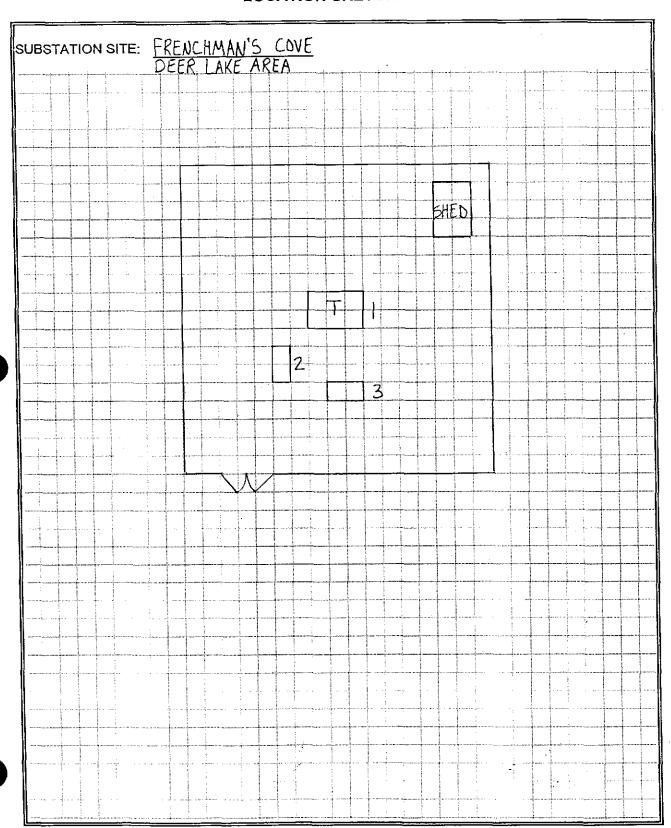


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	SITE: Frenchman's Cove West	DATE INSPECTED: 29-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
Transformer	Rough finish on top surface of pad. Remainder of pad is in good condition (30 Mpa).		4
#2 - FRN- 02-R Recloser	Good condition (28 Mpa).		4
#3 - FRN- 91-R Recloser	Good condition (30 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









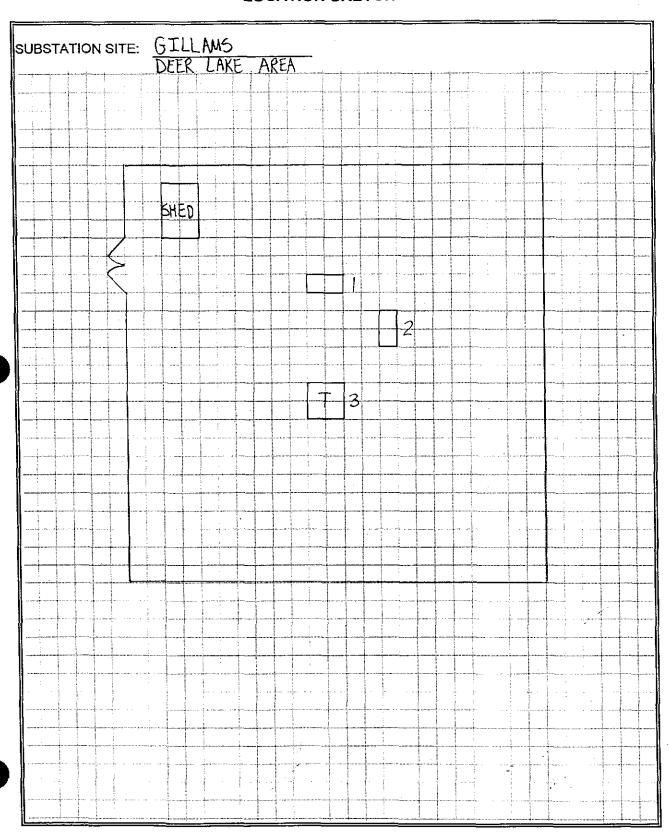


	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATIO	N SITE: Gilliams West	DATE INSPECTED: 29-Apr-02	F 1 - 200
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - GIL-	Good condition (28 Mpa).		4
02-R Recloser			_
Recloser			
			4
#2 - GIL-	Good condition (30 Mpa).		4
01-R			
Recloser			
#3 - T1	Good condition (28 Mpa).		4
#3 - T1 Transformer			
200288	3		
			
			-
11		1	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATION SITE: HumberDATE INSPECTED: 29-Apr-02			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T3	Good condition (34 Mpa).		4
Transformer			
200258			·
#2 - T2	Rough finish on top surface of pad,		4
	otherwise pad is in good condition (34 Mpa)		
200122			
#3 -	Rough finish on pad with some exposed		4
Structure	aggregate, otherwise pad is in good		
High Voltage	condition (26 Mpa).		
#4 - HUM-	Rough finish on pad with some exposed		4
T3-A	aggregate, otherwise pad is in good		
Structure	condition (24 Mpa).		
High Voltage			
		T Dis	3
#5 - HUM-	Rough finish on top surface of pad,	Туре В гераіг	
T2-A	with some minor cracking (26 Mpa).		
Structure			
High Voltag	e		<i>a</i> .
#6 - HUM-	Good condition (20 Mpa).		4
359L-DL			
Structure			
High Voltag	je		
l1	i	ł .	

Priority Rating	Priority Description	Recommended Time Frame
PHONEY INDICATE	Immediate corrective action required	within 1 year
1		within 3 years
2	Corrective action required to avoid increasing costs to repair	
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



	*		
SUBSTATION SITE:	Humber	_DATE INSPECTED:	29-Apr-02
•	West		

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - HUM- 359L-B	Good condition (31 Mpa).		4
Oil Circuit			
#8 - HUM-	Rough finish on pad, otherwise pad is in		4
BTS-1	good condition (30 Mpa).		
Structure			
High Voltage			
#9 - HUM-	Good condition (42 Mpa).		4
356L-B			
Hex			
. réaker			
#10 - HUM-	Rough finish on pad, otherwise pad is in		4
356L-DL	good condition (28 Mpa).		
Structure			-
High Voltage			
#11 - HUM-	Good condition (41 Mpa).		4
08-BP	The second of th		
Structure			
Low Voltage			
#12 - HUM-	Minor scaling on top surface of pad.		4
08-R	Remainder of pad is in good condition		
Recloser	(30 Mpa).		

Prior	ity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



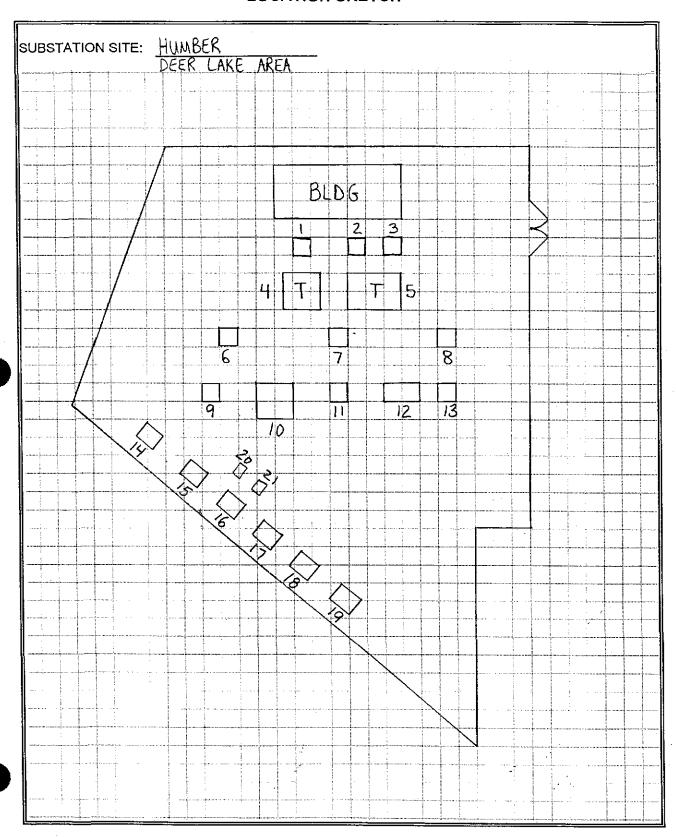
SUBSTATION SITE:	Humber West	DATE INSPECTED:	29-Apr-02	
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	vvest		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - HUM-	Good condition (36 Mpa).		4
Т3-В			
Oil Circuit			
Breaker			
		•	
#14 - HUM-	Good condition (41 Mpa).		4
09-BP			
Structure			
Low Voltage			
		-	
·			
#15 - HUM-	Minor scaling on top surface of pad.		4
09-R	Remainder of pad is in good condition		
Recloser	(44 Mpa).		
		<u></u>	
#16 -	Good condition (40 Mpa).		4
Structure			
Low Voltage			
		49.0	
			1
]
			4
			4
			4
			<u> </u>

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









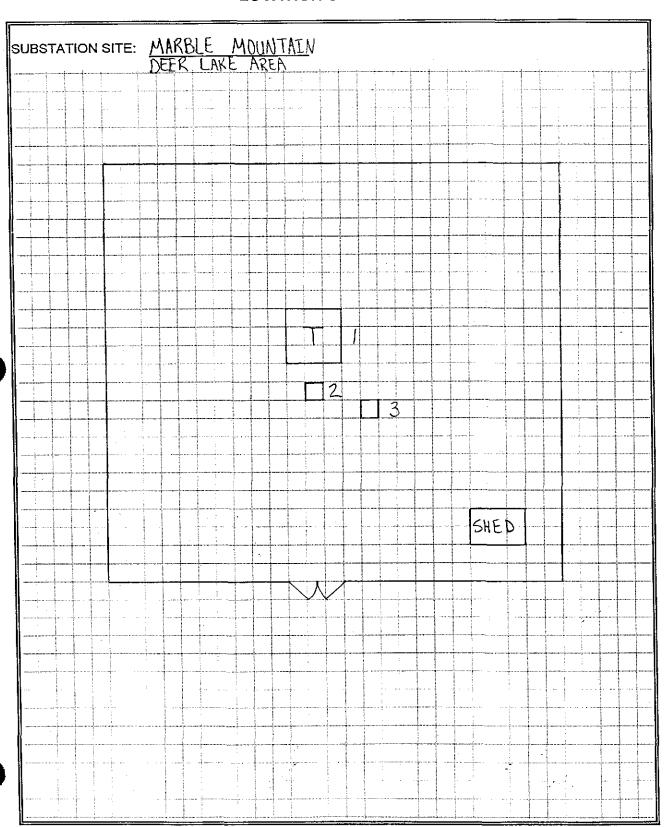


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	N SITE: Marble Mountain West	DATE INSPECTED: 1-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1	Good condition (36 Mpa).		4
Transformer 200091			- - - -
#2 -	Minor scaling on top surface of pad. Remainder of pad is in good condition		4
Metering Tank	Remainder of pad is in good condition (31 Mpa).		
#3 - MMT-	Minor scaling on top surface of pad.		4
01-R Recloser	Remainder of pad is in good condition (35 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











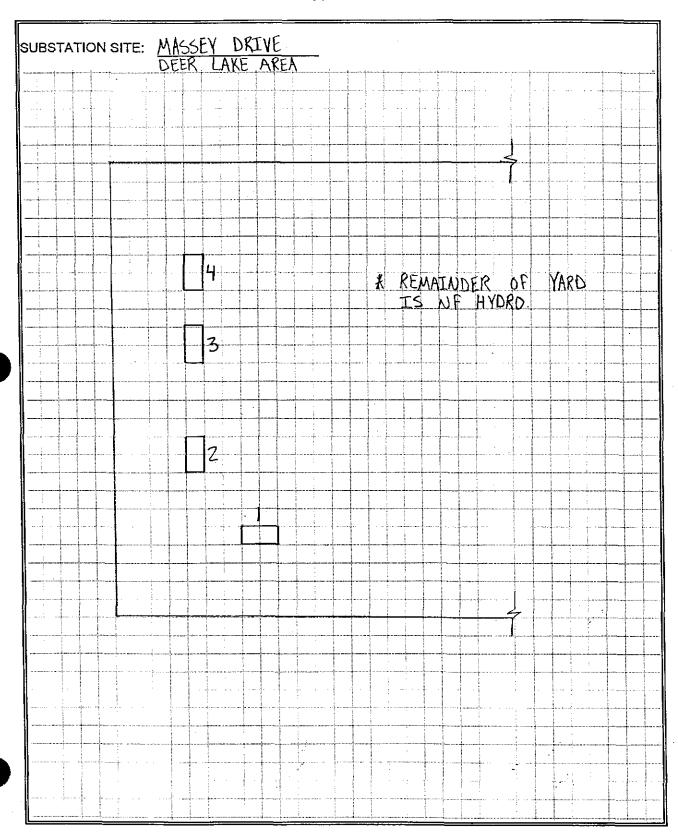
SUBSTATION SITE: Massey Drive DATE INSPECTED: 29-Apr-02
West

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - MAS-	Minor scaling on top surface of pad.		4
351L-B	Remainder of pad is in good condition		
Sul Hex	(44 Mpa).		
Breaker			
#2 - MAS-	Minor scaling on top surface of pad.		4
357L-B	Remainder of pad is in good condition		_
Sul Hex	(44 Mpa).		
Breaker			
#3 - MAS-	Alligator cracking throughout top surface of	Type B Repair for alligator cracking	2
352L-B	pad. Several hairline cracks from edge of	& Type C Repair for other cracks	
Sul Hex	pad that extend down side approx. 150-200		
Breaker	mm and have a separation of 1-2mm		
	(22 Mpa).		
#4 - MAS-	Alligator cracking throughout top surface of	Type B Repair for alligator cracking	2
356L-B	pad. Several hairline cracks from edge of	& Type C Repair for other cracks	
Sul Hex	pad that extend down side approx. 150-200		
Breaker	mm and have a separation of 1-2mm.		
	Two chunks of concrete are removed from		
	pad (26 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 1-May-02 SUBSTATION SITE: Pasadena West **Priority General Condition** Recommendations Fdn/Pad Rating Type & No. 1 Type C Repair Pad is off level on top surface #1 - PAS-Hairline cracking and associated 01-BP alligator cracking present Structure Low Voltage throughout top and sides of pad (approx. 350mm long & 2-3mm apart) 44 Mpa. Possible settlement problem. 3 Uneven top surface (seems to be sunken Type A Repair #2 - PASon one comer). Minor scaling on top 01-R surface of pad, otherwise pad is in good Recloser condition (28 Mpa). Minor scaling on top surface of pad. #3 - PAS-Remainder of pad is in good condition ້າງ2-R Recloser (34 Mpa). Type A Repair for scaling & Pitting Minor scaling and pitting on top surface of #4 - PASpad. Four hairline cracks (midway across Type C Repair for cracks 02-BP each edge of pad) and associated Structure Low Voltage alligator cracking present. Cracks extend down sides approx 150mm with a separation of 2-3mm (41 Mpa). Hairline cracking and associated Type C repair #5 alligator cracking present throughout top Structure and sides of pad. Cracks are approx. Low Voltage 350mm long and have a separation of approx. 2-3mm (44 Mpa). Minor scaling on top surface of pad. #6 -Remainder of pad is in good condition Metering (34 Mpa). Tank

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





SUBSTATION SITE:	Pasadena	DATE INSPECTED:	1-May-02	
	West			

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - PAS- T1-D	Weathering and eroding on all edges of top surface of pad. Scaling portions can be	Type A Repair for scaling & Type C Repair for cracks	2
Structure	removed with boot. Hairline and associated		
Low Voltage	alligator cracking present throughout top		
	and sides of pad. Approx. top 200mm of		
	pad seems to be affected by cracking with		
	crack separation approx 1-2mm (41 Mpa).		
#8 - T1	Good condition (34 Mpa).		4
Transformer			
200250			·
#9 -	Minor scaling and pitting on top surface of	Type A Repair for scaling & Type C Repair	2
ucture	pad. Four hairline cracks (midway across	for cracks	
h Voltage	each edge of pad) and associated		1
	alligator cracking present. Cracks extend		
	down sides approx 350mm with a		
	separation of 2-3mm (41 Mpa).		
#10 - PAS-	Severe scaling, weathering and eroding on	Type D Repair	1
T1-A	all top edges of pad. Alligator cracking also		
Structure	present on top surface of pad. Portions of		
High Voltage	concrete can be kicked away with boot.		1
	Only approx top 150mm seems to be		1
	affected (36 Mpa).		
#11 -	Minor scaling on top surface of pad. Four	Type A Repair for scaling & Type C Repair	2
Structure	hairline cracks (midway across each edge	for cracks	
High Voltage	of pad) that extend down sides of pad]
	approx. 150mm and have an approx.		
	separation of 2-3mm (34 Mpa).	,	
#12 - PAS-	Minor scaling on top surface of pad.	Type B Repair for scaling & Type C Repair	2
L1-BP-1	Two minor hairline cracks that have a	for cracks	
Structure	separation of approx. 1mm (30 Mpa).		
High Voltage]
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L			<u> </u>

riority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



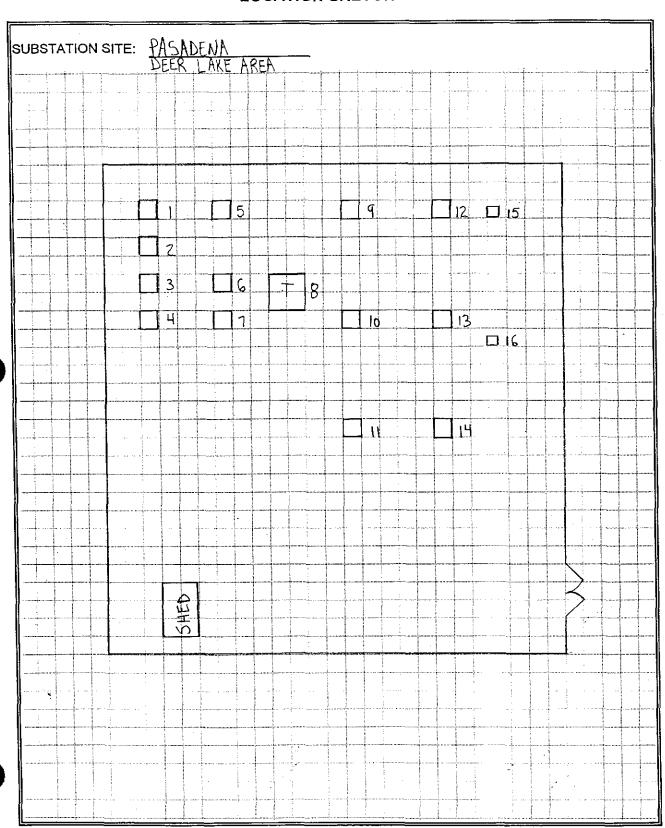


SUBSTATION	N SITE: <u>Pasadena</u> West	DATE INSPECTED: 1-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 - PAS- L1-BP-2 Structure High Voltage	Severe scaling, weathering and eroding on top surface of pad. Top 125mm only seems to be affected (40 Mpa).	Type D Repair	1
#1 4 - Structure High Voltage	Severe scaling and minor pitting present on top surface of pad. Top 75mm of pad seems to be affected (34 Mpa).	Type A Repair	2
#15 - Oil Circuit Jreaker	Minor alligator cracking present on top surface of pad (26 Mpa).	Type B Repair	3
#16 - Oil Circuit Breaker	Faint alligator cracking present on top surface of pad (24 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
. 3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











N IDOTATION	INSPECTION OF CONCRETE I SITE: Seal Cove Road	DATE INSPECTED: 2-May-02	
SUBSTATION	West	DATE INGPLOTED:	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - SCR-	Minor scaling on top surface of pad.		4
	Remainder of pad is in good condition (42 Mpa).		
#2 - SCR-	Minor scaling on top surface of pad. One	Type A Repair	3
	section along edge of pad is chipped away (44 Mpa).		
#3 - Not In Use	Good condition (44 Mpa).		4
#4 - SCR-	Spalling on all four corners of pad. Top 75mm section of pad is scaled, eroded,	Type D Repair	1
VR-BP Structure Low Voltage	and weathered. Alligator cracking present throughout top of pad (34 Mpa).		
#5 - SCR- VR-DL Structure	Rough finish on previously recapped top surface of pad, otherwise pad is in good condition (28 Mpa).		4
Low Voltage			
#6 - Structure Low Voltage	Spalling on all four corners of pad. Top 75mm section of pad is scaled, eroded, and weathered. Alligator cracking present throughout top of pad (23 Mpa).	Type D Repair	1

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
	No corrective action or maintenance required at this time	



SUBSTATION SITE: Seal Cove Road ______DATE INSPECTED:

2-May-02

SUBSTATION	West	DATE INOPECTED. Z-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - SCR-	Three minor hairline cracks present (these	Type B Repair	3
VR-DB	cracks have already been sealed).		
Structure	Remainder of pad is in good condition		
Low Voltage	(44 Mpa).		
	Spill pan installed under voltage regulator.	Based on limited visibility of concrete	4
Voltage	Visible portion of concrete seems to be in		
Regulator	good condition.		
220371			
	Spill pan installed under transformer.	Based on limited visibility of concrete	4
Transformer	Visible portion of concrete seems to be in		
200323	good condition.		
#10 - SCR-	Top 100mm of pad has already been		4
363L-GS	recapped. Minor scaling on top portion of		
Structure	pad. Remainder of pad is in good condition		
High Voltage	(40 Mpa).		
#11 -	Top 100mm of pad has been recapped.	Type D Repair	11
Structure	Recap is in poor condition with scaling and		
High Voltage	eroding (portions of recap can be removed		
	with boot). Lower portion of pad seems to		
	be in fair condition (30 Mpa).		·
#12 -	Top 100mm of pad has been recapped.	Type D Repair	11
Structure	Recap is in poor condition with scaling and		
High Voltage	eroding (portions of recap can be removed		
	with boot). Lower portion of pad seems to		
	be in fair condition (30 Mpa).		
li .			l

<u>Priorit</u>	ty Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



SUBSTATION		DATE INSPECTED: 2-May-02	
······································	West		1
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 -	Top 100mm of pad has been recapped.	Type D Repair, however if substantial effort & cost is involved in preparation for	1
Structure	Recap is in poor condition with scaling and	repairs then total replacement would be	1
High Voltage	eroding (portions of recap can be removed	a more cost effective long term solution.	1
	with boot). Lower portion of pad seems to	a more cost effective long term solution.	1
	be affected by weathering and eroding		-
	(28 Mpa).		4
#14 -	Top 100mm of pad has been recapped.		
Structure	Minor scaling present on recap. Recap		†
High Voltage	and area below recap are in good		1
	condition (34 Mpa).		1
			1
#15 -	Top 100mm of pad has been recapped.	Type D Repair, however if substantial	1
Structure	Recap is in poor condition with scaling and	effort & cost is involved in preparation for	
High Voltage	eroding (portions of recap can be removed	repairs then total replacement would be	
	with boot). Lower portion of pad is showing	a more cost effective long term solution.	
	signs of weathering and eroding (28 Mpa).		
			 _
#16 - SCR-	Top 125mm of pad has been recapped.	Type D Repair, however if substantial	11
T1-HGS	Recapped area of pad is in good condition.	effort & cost is involved in preparation for	_
Structure	Area below recap is showing signs of	repairs then total replacement would be	_
High Voltage	weathering and eroding and several	a more cost effective long term solution.	4
	locations (44 Mpa).		_
	T- 400 of red has been recopped	Type D Repair, however if substantial	1 1
#17 -	Top 100mm of pad has been recapped. Recap is in good condition. Several areas	effort & cost is involved in preparation for	
Structure	under recap have weathered, eroded, and	repairs then total replacement would be	7
High Voltage	scaled away (34 Mpa).	a more cost effective long term solution.	7
	scaled away (54 Mpa).		
#18 - SCR-	Top 100mm of pad has been recapped.	Type A Repair	2
T1-A	Some areas of recap are starting to scale		_
Structure	and erode away to a depth of approx.		-
	e 12mm in areas (34 Mpa).		4
			_
ļ			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION SITE:

Seal Cove Road

DATE INSPECTED: 2-May-02

Fdn/Pad) Doggawanandakiana	Dringitus
Type & No.	General Condition	Recommendations	Priority Rating
#19 - SCR-	Top 125mm of pad has been recapped.	Type D Repair, however if substantial	1
Γ1-HGS	Recap has cracking and scaling	effort & cost is involved in preparation for	
Structure	throughout. Area below recap is showing	repairs then total replacement would be	
High Voltage	signs of weathering and eroding (24 Mpa).	a more cost effective long term solution.	
#20 -	Top 100mm of pad has been recapped.	Type D Repair, however if substantial	1
Structure	Recap is in poor condition with scaling and	effort & cost is involved in preparation for	_
High Voltage	eroding (portions of recap can be removed	repairs then total replacement would be	
	with boot). Lower portion of pad is showing	a more cost effective long term solution.	3
	signs of weathering and eroding. Steel		
	baseplate for structure exposed (28 Mpa).		
#21 - SCR-	Top 100mm of pad has been recapped.		4
I1-GS	Otherwise, pad is in good condition		
ucture	(34 Mpa).		
nigh Voltage			-
#22 -	Four corners of pad are spalled to a depth	Type A Repair	2
Structure	of approx. 125mm. Minor scaling on sides		
High Voltage	of pad. Remainder of pad is in good		
	condition (29 Mpa).		_
#23 -	Four corners of pad have eroded away.	Type A & B Repair	1
Structure	Minor alligator cracking present throughout		_
High Voltage	sides of pad. One area has a small portion		
	of concrete removed (44 Mpa).		
#24 - SCR-	Good condition (26 Mpa).		4
TL-260-DB			_
Structure			
High Voltage			-{

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	1	Immediate corrective action required
	2	Corrective action required to avoid increasing costs to repair
	. 3	General maintenance item
	. 4	No corrective action or maintenance required at this time

Priority Description

Priority Pating

Recommended Time Frame

within 1 year within 3 years within 5 years



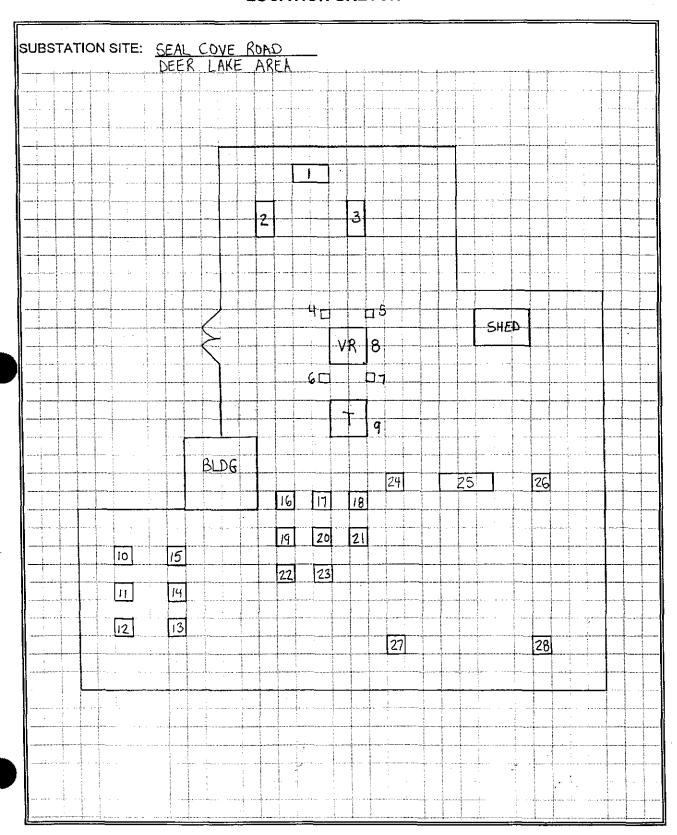


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	I SITE: Seal Cove Road West	DATE INSPECTED: 2-May-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#25 - SCR- TL-260-B Sul Hex Breaker	Good condition (44 Mpa).		4
#26 - SCR- TL-260-GS Structure High Voltage	Good condition (28 Mpa).		4
#27 - Structure High Voltage	Top of pad has scaling and flaking to a depth of approx. 12mm. Remainder of pad seems to be in good condition (40 Mpa).	Type A Repair	1
#28 -	Good condition (29 Mpa).		4
Structure High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











INSPECTION OF CONCRETE PADS & FOUNDATIONS DATE INSPECTED: 26-Apr-02 Walbournes SUBSTATION SITE: West **Priority General Condition** Recommendations Fdn/Pad Rating Type & No. 1 Type C Repair Hairline cracking present throughout top of #1 pad that extend down from edge of pad to Structure High Voltage a depth of approx. 100mm with a separation between cracks of 3-4mm (52 Mpa). 4 #2 - WAL-Good condition (41 Mpa). 352L-B Sul Hex Breaker Scaling and hairline cracking present Type C Repair #3 - WALthroughout top of pad. One crack runs 352L-DL down side of pad approx. 150-200mm with Structure High Voltage separation of crack approx. 3mm (50 Mpa). Minor scaling and alligator cracking Type A & B Repair #4 - WALpresent throughout top of pad. Three 351L-B small hairline cracks with separation of Oil Circuit 1mm (37 Mpa). Breaker 2 Type A & C Repair Scaling and eroding present throughout #5 - WALtop surface of pad. Several small hairline 353L-BP cracks extend down sides of pad approx. Structure High Voltage 100-150mm with a separation between cracks of 2-3mm (28 Mpa). Type A Repair Scaling and minor alligator cracking #6 - WALthroughout top of pad. Remainder of pad is 353L-B

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

in fair condition (46 Mpa).

Oil Circuit Breaker



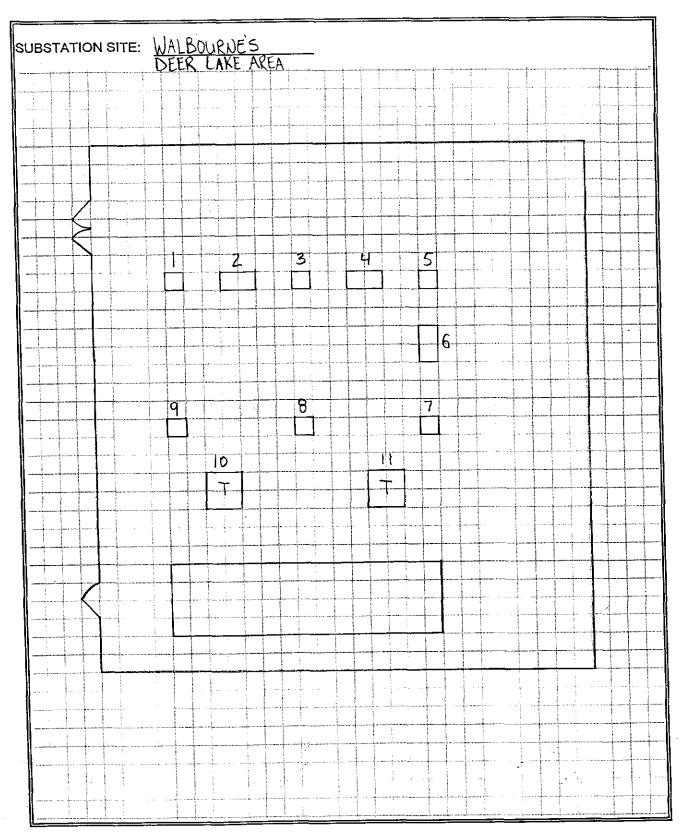
SUBSTATION SITE: Walbournes _____ DATE INSPECTED: _26-Apr-02

	West		
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - WAL-	Minor scaling on top surface of pad. One	Type A & C Repair	1
353L-GS	hairline crack runs down side of pad approx		Į
Structure	150-200mm with separation of 2-3mm		
High Voltage	(44 Mpa).		
#8 - WAL-	Hairline cracking present throughout top of	Type C Repair	1
BTS-1	pad that extend down from edge of pad to		-
Structure	a depth of approx. 100mm with a		ł
High Voltage	separation between cracks of 3-4mm.		
	Alligator cracking also present on top		<u> </u>
	surface of pad (44 Mpa).		ļ
#9 - WAL-	Hairline cracking present throughout top of	Type C Repair	1
T1-A	pad that extend down from edge of pad to		
ructure	a depth of approx. 100mm with a		
nigh Voltage	separation between cracks of 3-4mm.		
	Alligator cracking also present on top		
	surface of pad (44 Mpa).		
#10-WAL-T1	Good condition (41 Mpa).		4
Transformer			
200276			
#11_\MAL_T2	Good condition (40 Mpa).		4
Transformer			
200145			
200143			1
		<u> </u>	1
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	







STEPHENVILLE AREA

ABRAHAM'S COVE **BERRY HEAD** DOYLE'S **GALLANT STREET GRAND BAY** HARMON LONG LAKE LOOKOUT BROOK PORT AUX BASQUES ROBINSON'S ROSE BLANCHE BROOK SANDY BROOK STEPHENVILLE CROSSING STEPHENVILLE GAS TURBINE ST. GEORGES WHEELER'S



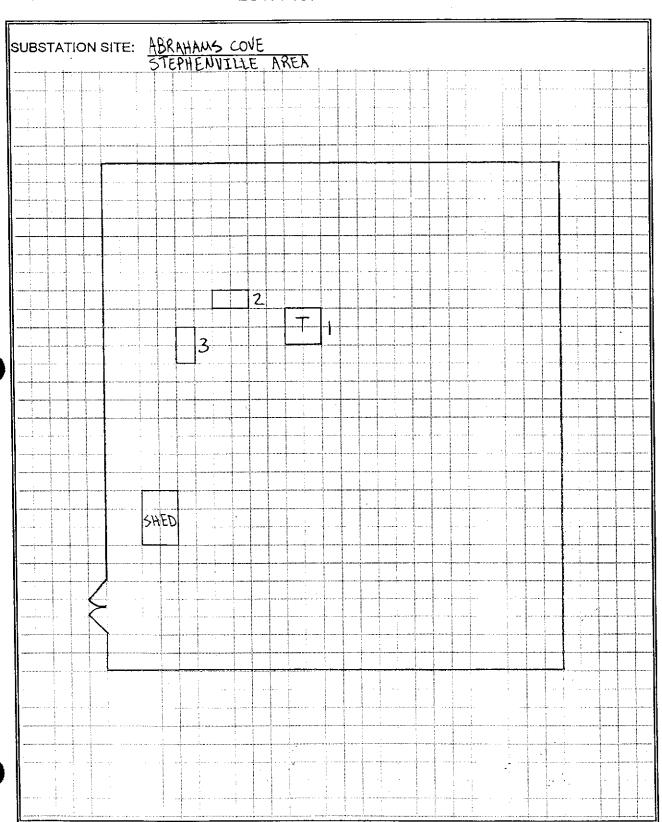


INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATION SITE: Abraham's Cove DATE INSPECTED: 25-Apr-02 West				
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
#1 - T1 Transformer 200260	Good condition (26 Mpa).		4	
#2 - ABC- 02-R Recloser	Minor scaling on top surface of pad. Remainder of pad is in good condition (36 Mpa).	Future Monitoring	4	
#3 - ABC- 11-R Recloser	Good condition (34 Mpa).		4	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









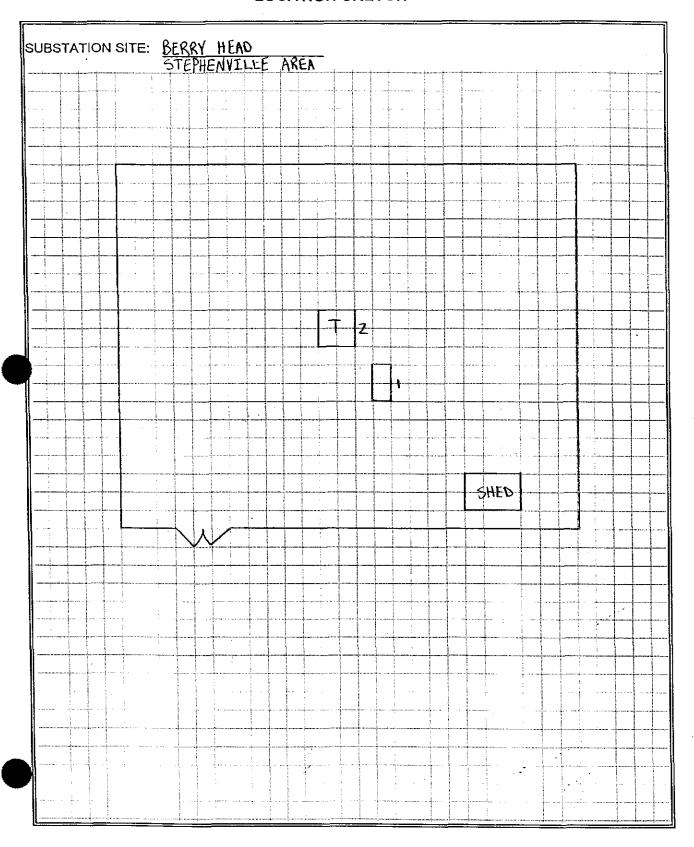


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATION	N SITE: Berry Head West	DATE INSPECTED: 25-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - BHD- 01-R	Rough finish on top surface of pad. Otherwise pad is in good condition		4
Recloser	(30 Mpa).		
#2 - T1	Minor scaling on top surface of pad.		4
Transformer 200110	Remainder of pad is in good condition (42 Mpa).		
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No competition action or maintenance required at this time	











INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	N SITE: Doyles West	DATE INSPECTED: 24-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - DOY- 01-R Recloser	Good condition (28 Mpa).		4
	Addition poured around original pad. There are several small hairline cracks on the top surface (less than 1mm separation). Two comers of pad are chipped, and top surface is rust covered (42 Mpa).	Type B Repair for cracks & Type A for chipped corners	3
#3 - Structure ligh Voltage	Rough finish on top surface of pad. Remainder of pad is in good condition (36 Mpa).		4
#4 - DOY- T2-A Structure High Voltage	Rough finish on top surface of pad. Remainder of pad is in good condition (34 Mpa).		4
#5 - Structure High Voltage	Good condition (32 Mpa).		4
#6 - Structure High Voltage	Two areas of minor alligator cracking on sides of pad. Remainder of pad is in good condition (34 Mpa).	Type B Repair	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

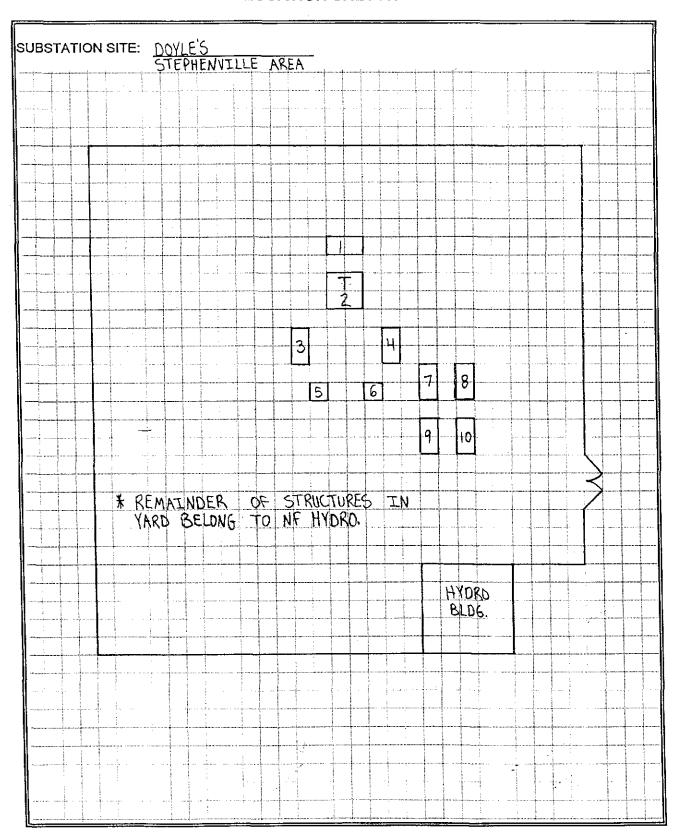


	mor comon or contained		
SUBSTATIO	N SITE: Doyles West	DATE INSPECTED: 24-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - Structure High Voltage	Good condition (36 Mpa).		4
#8 -	Two areas on pad of minor alligator	Type B Repair	3
Structure	cracking. One area (approx. 100mm long) is chipped away.		-
			-

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









SUBSTATION SITE:

Gallant Street

DATE INSPECTED: 25-Apr-02

West			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 -	Severe hairline cracking that seems to	Type C Repair for a short to medium term	1
Structure	originate from four corners of steel structure	option however a Type E - total replacement	
Low Voltage	outwards towards edge of pad. Portions of		
		and to ensure structural stability of the	
some cracks now have separation of approx foundation.		foundation.	
	4-5mm (44 Mpa).		
#2 - Not In	Minor scaling and alligator cracking on top	Type A & B Repair	3
Use	surface of pad (44 Mpa).		
1 0 0 1 1			4
#3 - GAL-	Minor scaling on top surface of pad		
11-R	(44 Mpa).		
closer			
			j
			;
#4 - GAL-	Severe hairline cracking that seems to	Type C Repair for a short to medium term	1
01-BP	originate from four corners of steel structure	option however a Type E - total replacement	
Structure	outwards towards edge of pad. Portions of	is recommended for a long term solution	
Low Voltage	concrete pad have potential to separate,	and to ensure structural stability of the	
Low Voltage	some cracks now have separation of approx	foundation.	
	3-4mm (42 Mpa).	iounduton.	•
#5 - GAL-	Scaling present on top surface of pad,	Type A & B Repair	2
#5 - GAL- 05-R	some areas of minor alligator cracking	1 Jpo / Ca D Nopuli	
Recloser	(44 Mpa).		
Reciosei	(44 Mpa).		
		-	
			·
#6 -	Minor scaling and alligator cracking on top	Type A & B Repair	3
Metering	surface of pad (36 Mpa).		
Tank			}
Structure			
<u> </u>	<u> </u>		

Pric	rity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



SUBSTATION SITE: Gallant Street DATE INSPECTED: 25-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating	
			1	
‡7 - GAL-	Severe hairline cracking that seems to	Type C Repair for a short to medium term		
Γ1-D	originate from four comers of steel structure	option however a Type E - total replacement		
	outwards towards edge of pad. Portions of	is recommended for a long term solution		
ow Voltage	concrete pad have potential to separate,	and to ensure structural stability of the		
	some cracks now have separation of approx	foundation.		
	2-3mm (44 Mpa).		4	
4 8 -	Rough finish on top of pad, otherwise pad		4	
Metering	is in good condition (28 Mpa).			
Tank			į	
Structure				
			!	
#9 - GAL-	Rough finish on top of pad, otherwise pad		44	
Դ4-R	is in good condition (34 Mpa).			
.kecloser				
u.			ļ <u> </u>	
#10 - GAL-	Minor scaling and rough finish on top		4	
03-BP	surface of pad. Remainder of pad is in		1	
Structure	good condition (36 Mpa).			
Low Voltage				
#11 - GAL-	Minor scaling and rough finish on top		4	
03-R	surface of pad. Remainder of pad is in			
Recloser	good condition (28 Mpa).			
1.00.000				
ĺ				
1				
#12 - Not in	Rough finish on top surface of pad		4	
#12 - 1400 111 Use	(30 Mpa).			
USE	too wipay.		7	
 -			7	
•			7	

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



SUBSTATION SITE:	Gallant Street	DATE INSPECTED:	25-Apr-02
	West	-	

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 -	Minor scaling and rough finish on top		4
Structure	surface of pad, remainder of pad is in good		
	condition (37 Mpa).		
#14 - T1- Transformer	Good condition (44 Mpa).		4
200278			
#15 - T2 Transformer	Good condition (42 Mpa).		4
200265			
#16 - GAL-	Minor scaling and rough finish on top		4
406L-DB	surface of pad, remainder of pad is in good		
Structure	condition (44 Mpa).		
High Voltage			
#17 - GAL-	Minor scaling and rough finish on top		4
BTS-1	surface of pad, remainder of pad is in good		1
Structure High Voltage	condition (28 Mpa).		-
#18 - GAL-	Rough finish on top surface of pad		4
T2-A	(44 Mpa).		1
Structure	(, , , , , , , , , , , , , , , , , , ,	****	1
High Voltage			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





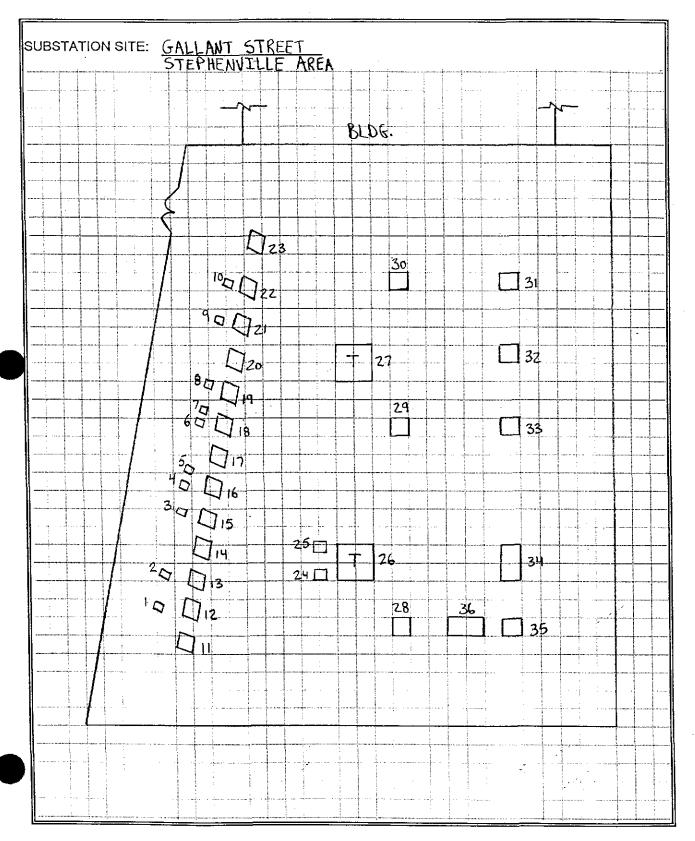
SUBSTATION SITE: Gallant Street DATE INSPECTED: 25-Apr-02
West

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#19 - GAL-	Minor scaling and rough finish on top	Type A Repair	3
402L-DB	surface of pad. One chunk taken out of		
Structure	edge of pad approx. 150mm long,		
High Voltage	otherwise pad is in good condition		
	(42 Mpa).		
#20 - GAL-	Rough finish on top surface of pad,		4
	remainder of pad is in good condition		
Sul Hex	(34 Mpa).		
Breaker			· ·
#21 - GAL-	Good condition (32 Mpa).		4
102L-GS	Good Condition (52 Mpa):		
structure			
High Voltage			`
riigir Voltage			
#22 - GAL-	Good condition (44 Mpa).		4
401L-B			
Sul Hex			
Breaker			
#23 - GAL-	Minor scaling on top surface of pad,		4
401L-GS	remainder of pad is in good condition		
Structure	(32 Mpa).		
High Voltage			
#24 - GAL-	Good condition (42 Mpa).		4
#24 - GAL- 406L-B	Good condition (42 Mpa).		
Sul Hex			
Breaker			
Бгеакег			
ll .			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









SUBSTATION SITE:

Grand Bay

DATE INSPECTED: 23-Apr-02

	West		····
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
	Rough finish on top surface of pad.		4
117L-BP	Remainder of pad is in good condition		
Structure	(34 Mpa).		
High Voltage			
#2 - GBS-	One corner chipped on pad, otherwise pad	Type A Repair	3
117L-B	is in good condition (26 Mpa).		
Oil Circuit			
3reaker			
#3 - GBS-	Good condition (22 Mpa).		4
117L-DB	,		
tructure			
Hig h V oltage			
#4 - GBS-	Good condition (38 Mpa).		4
416L-B			
Oil Circuit			
Breaker			
#5 - GBS-	Minor scaling on top surface of pad.		4
416L-DB	Remainder of pad is in good condition		
Structure	(30 Mpa).		
High Voltage			
#6 - GBS-	Good condition (28 Mpa).		4
TL-215-B			
Oil Circuit		·	
Breaker			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

Low Voltage (34 Mpa).



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SUBSTATIO	N SITE: Grand Bay West	DATE INSPECTED: 23-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - GBS-	Rough finish on top surface of pad.		4
TL-215-DB Structure	Remainder of pad is in good condition		
Structure High Voltage	(28 Mpa).		
riigii Follago			
#8 - BICI	Rough finish on top surface of pad.		4
Sul Hex	Remainder of pad is in good condition.		
Breaker			
NF Hydro			
#9 - BICI	Rough finish on top surface of pad.		4
`tructure	Remainder of pad is in good condition		
	(22 Mpa).		
Hydro			
#10 - GBS-	Minor scaling and spalling on top surface,	Type A Repair	3
T1-A	also rough finish on top surface of pad.		
Structure	Remainder of pad is in good condition.		
High Voltage	(28 Mpa).		
#11 -	Good condition (28 Mpa).		- 4
Transformer			
(In For			
Repairs)			
#12 -	Rough finish on top surface of pad.		4
Structure	Remainder of pad is in good condition		
A	1264 14 1	1	ı

Prior	ity Rating	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
T	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	





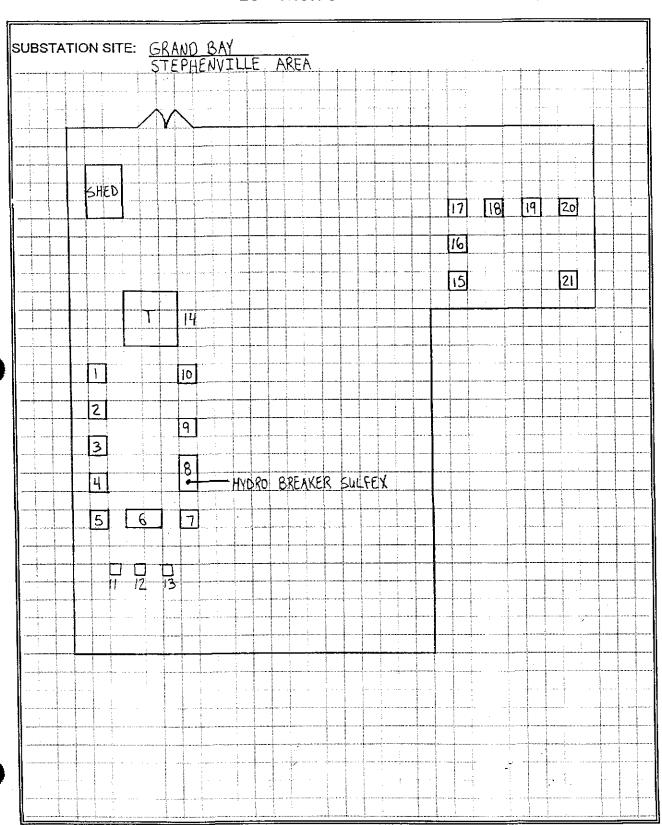
SUBSTATION SITE:	Grand Bay	DATE INSPECTED:	23-Apr-02	
·	West			

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#13 -	Rough finish on top surface of pad.		4
Metering	Remainder of pad is in good condition		
Tank	(34 Mpa).		
#44 CDC	Rough finish on top surface of pad.		4
#14 - GBS- 02-BP	Remainder of pad is in good condition		-
Structure	(30 Mpa).		
Low Voltage			
#15 - GBS-	Rough finish on top surface of pad.		4
12-R	Remainder of pad is in good condition		
,.≺ecloser	(28 Mpa).		
#16 - GBS-	Rough finish on top surface of pad.		4
#16 - GBS- 01-R	Remainder of pad is in good condition		
Recloser	(34 Mpa).		
Recioser	(34 Mpa).		
<u> </u>			
#17 - GBS-	Good condition (28 Mpa).		4
01-DL			
Structure			
Low Voltage			
#18 -	Rough finish on top surface of pad.		4
Structure	Remainder of pad is in good condition		
Low Voltage			
	Variable A.V.		
			<u> </u>
II.			

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









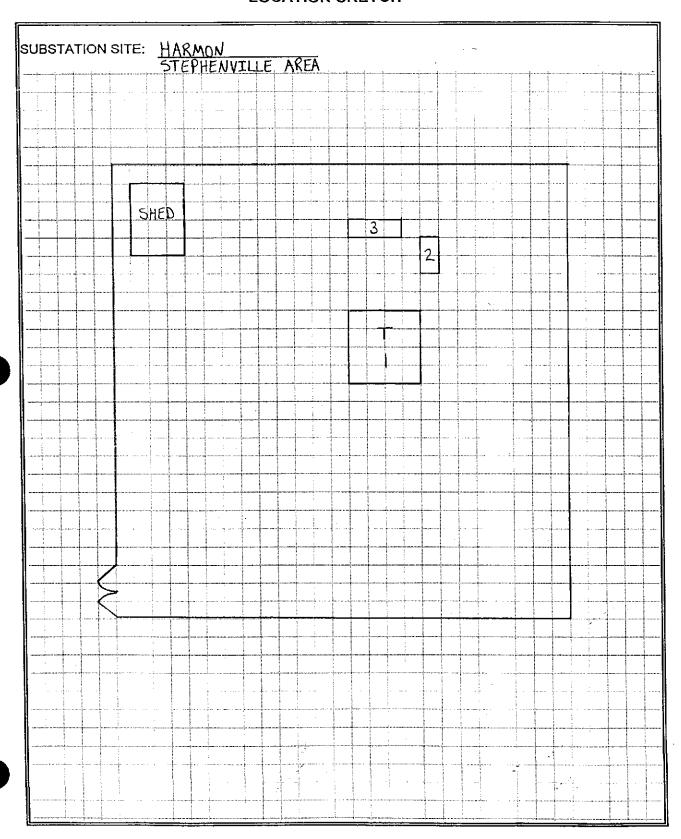


	INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATION	N SITE: Harmon West	DATE INSPECTED: 24-Apr-02			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating		
Transformer	Spill pan installed under transformer. Visible areas of pad indicate signs of minor scaling, pitting, and alligator cracking.	Type A Repair based on limited visibility of concrete.	2		
#2 - HAR- 01-R Recloser	Spalling on four comers and edges of pad. Chipping, scaling and alligator cracking present throughout top of pad. Portions of concrete can be kicked away with boot (46 Mpa). Only upper 150mm of pad seems	Type D Repair	2		
#3 - HAR- 72-R , <ecloser< td=""><td>to be damaged. Slight alligator cracking on top surface, remainder of pad is in good condition (34 Mpa).</td><td></td><td>4</td></ecloser<>	to be damaged. Slight alligator cracking on top surface, remainder of pad is in good condition (34 Mpa).		4		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









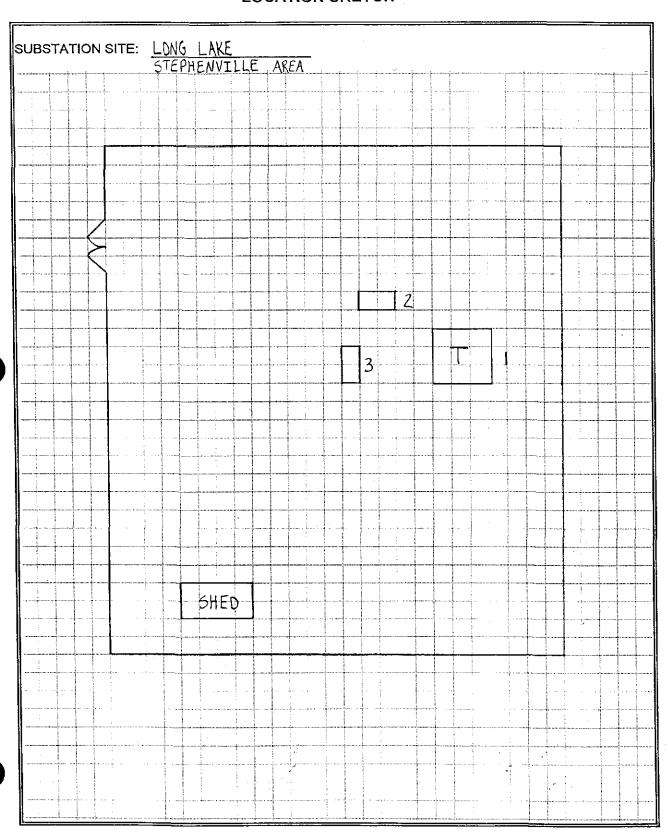


INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	N SITE: Long Lake West	DATE INSPECTED: 23-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1 Transformer 200120	One corner of pad is chipped. Remainder of pad is in good condition (36 Mpa).	Type A Repair	3
#2 - LGL- 01-R Recloser	Good condition (31 Mpa).		4
#3 - LGL- `2-R .ecloser	Good condition (41 Mpa).		4

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









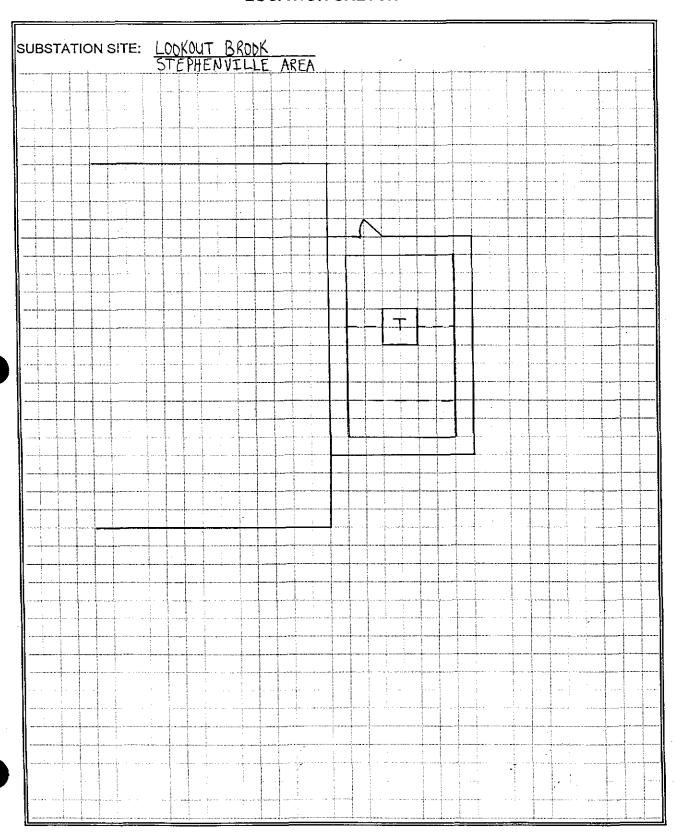


	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATIO	N SITE: Lookout Brook West	DATE INSPECTED: 24-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - T1 Transformer 200112	Consists of three separate pads side by side. Spill pan is installed under transformer. Top surface of pad has minor scaling and rough finish. A few areas of minor chipping and cracking (28 Mpa).	Type A Repair - based on limited visibility of concrete.	3

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











	INSPECTION OF CONCRETE	PADS & FOUNDATIONS	
SUBSTATION	N SITE: Port Aux Basques West	DATE INSPECTED: 23-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - PAB-	Good condition (42 Mpa).		4
)2-R			
Recloser			
#2 - PAB-	Good condition (28 Mpa).		4
05-BP			
Structure			
Low Voltage			
			4
#3 - PAB-	Minor scaling and rough finish on top		
י5-R	surface of pad. Otherwise pad is in good		
.≺ecloser	condition (28 Mpa).		
#4 -	Rough finish on top surface of pad.		4
Metering	Remainder of pad is in good condition		
Tank	(28 Mpa).		
#5 - PAB-	One corner of pad has a minor chip and top	Type A Repair	3
06-BP	surface of pad has rough finish, otherwise		
Structure	pad is in good condition (28 Mpa).		
Low Voltage			
			4
#6 - PAB-	Minor scaling and rough finish on top		
06-R	surface of pad. Otherwise pad is in good		
Recloser	condition (41 Mpa).		
11		<u> </u>	-

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



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Port Aux Basques

DATE INSPECTED: 23-Apr-02

West			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - PAB-	Minor scaling and rough finish on top		4
03-R	surface of pad. Otherwise pad is in good		
Recloser	condition (38 Mpa).		
		·	
#8 - PAB-	Minor scaling on top surface of pad.		4
03-BP	Remainder of pad is in good condition		
Structure	(40 Mpa).		
Low Voltage			
#9 - T5	Rough finish on top surface of pad.		4
	Remainder of pad is in good condition		
200246	(20 Mpa).		
#10 - T3	Minor pitting on one side of pad. Remainder	Type A Repair	3
Transformer			
200101			
	·]
			<u> </u>
]
			-
			
			1

Priority	Rating

Priority Description

General maintenance item

Recommended Time Frame

3

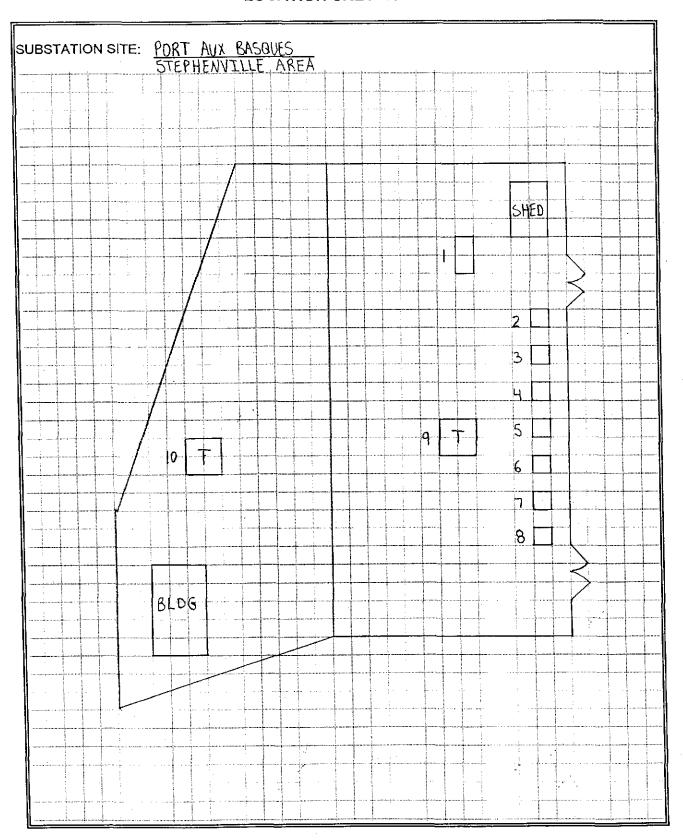
Immediate corrective action required Corrective action required to avoid increasing costs to repair within 1 year

within 3 years within 5 years

No corrective action or maintenance required at this time









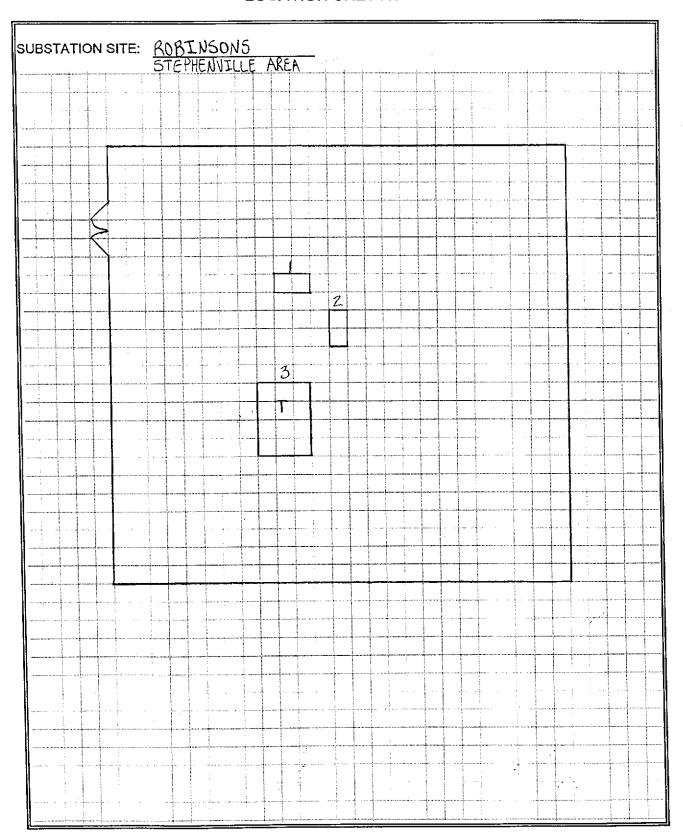


	INSPECTION OF CONCRETE PADS & FOUNDATIONS				
SUBSTATIO	N SITE: Robinson's West	DATE INSPECTED: 24-Apr-02			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating		
#1 - ROB- 01-R Recloser	Good condition (26 Mpa).		4		
#2 - ROB- 02-R Recloser	Good condition (44 Mpa).		4		
#3 - T1 ransformer 200291			4		

<u>Prio</u>	rity Rating	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	







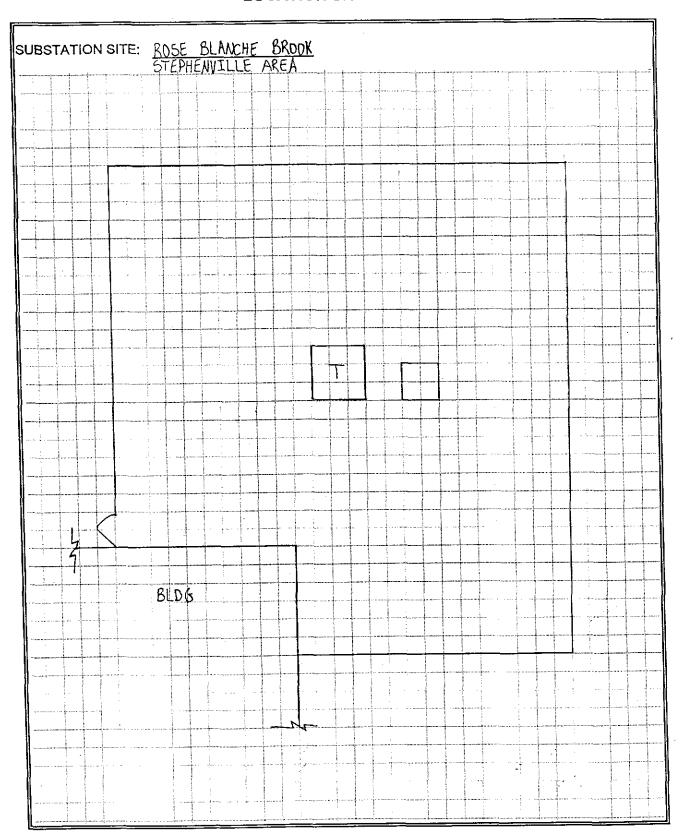


SUBSTATIO	N SITE: Rose Blanche Brook West	DATE INSPECTED: 23-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - RBH-T1	Spill pan installed under transformer.		4
Transformer	Visible portion of concrete pad seems to indicate that this is a new pad.		
200000	mulcate that this is a new pau.		-
#2 - RBH-	Good condition (41 Mpa).		4
T1-B Oil Circuit	· · · · · · · · · · · · · · · · · · ·		-
Breaker			1
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<u>Priorit</u>	<u>y Rating</u>	Priority Description	Recommended Time Frame
	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	









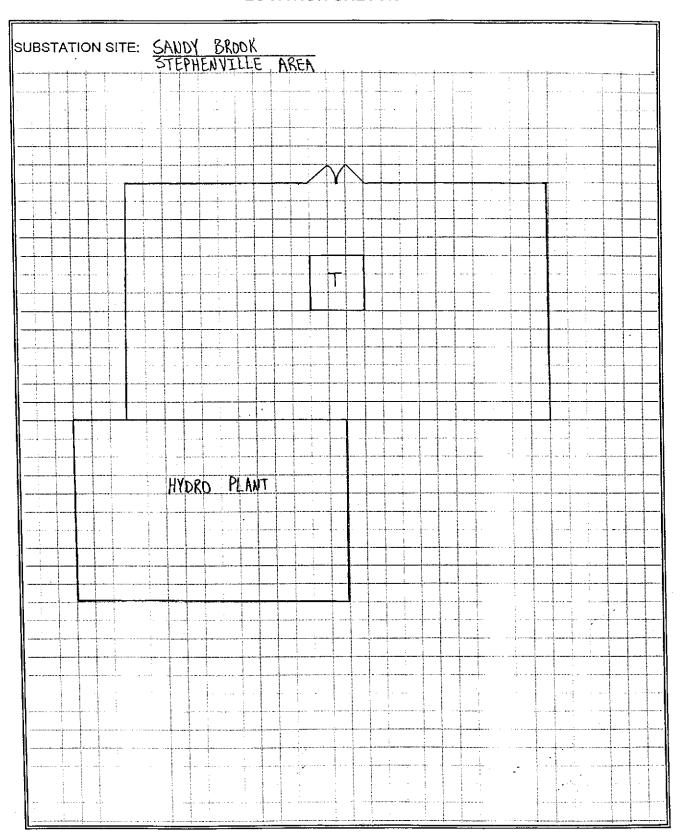


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INSPECTION OF CONCRETE PADS & FOUNDATIONS			
SUBSTATIO	N SITE: Sandy Brook West	DATE INSPECTED:	
	Vvest		
Fdn/Pad	General Condition	Recommendations	Priority
Type & No.			Rating
#1 - T1	Spill pan installed under transformer.		
Transformer	No area of pad visible, therefore no		
200181	assessment could be made.		
	· · · · · · · · · · · · · · · · · · ·		
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Priority Rating	Priority Description	Recommended Time Frame
<u> </u>	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









SUBSTATION SITE:	Stephenville Crossin	
	West	

DATE INSPECTED: 24-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - RTU	Good condition (41 Mpa).		4
Cabinet			
#2 - STX-	Minor scaling on top surface of pad.		4
01-BP	Remainder of pad is in good condition		
Structure	(42 Mpa).		
Low Voltage			
#3 - STX-	Good condition (42 Mpa).		4
י <u>1</u> -R			
closer			
			4
#4 - Not In	Good condition (26 Mpa).		
Use			<u>-</u>
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	-		
			4
#5 - STX-	Minor scaling on top surface of pad.		
02-BP	Remainder of pad is in good condition		
Structure	(42 Mpa).		
Low Voltage			
#6 - STX-	Minor scaling on top surface of pad.		4
T1-D	Remainder of pad is in good condition		
Structure	(44 Mpa).		
Low Voltage			

<u>Priority Rating</u>	Priority Description	Recommended Time Frame
_ 1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



#12 -

Structure



INSPECTION OF CONCRETE PADS & FOUNDATIONS

SUBSTATION	N SITE: Stephenville Crossing West	DATE INSPECTED: 24-Apr-02	
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 -	Minor scaling on top surface of pad.		4
Metering	Remainder of pad is in good condition		
Tank	(38 Mpa).		<u>:</u>
Structure			
#8 -	Minor scaling on top surface of pad, also	Type A Repair	3
Structure	one chip is taken out of top of pad (46 Mpa)		
Low Voltage			
#9 - T1	One hairline crack midway across one	Type B Repair	3
ransformer	side and extends down from edge approx.		
200286	200mm with 2mm separation (28 Mpa).		
#10 - STX-	Minor scaling on top surface of pad.	Type A Repair	3
T1-A	Remainder of pad is in good condition		
Structure	(44 Mpa).		
High Voltage			
#11 - STX-	One hairline crack midway across one	Type C Repair	3
407L-GS1	side and extends down from edge approx.		
Structure	200mm with 2mm separation (46 Mpa).		
High Voltage	e		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	

One hairline crack extends down from top

edge of pad approx. 75mm with 1mm

High Voltage separation. Minor scaling also present on top surface of pad (34 Mpa).

Type B Repair

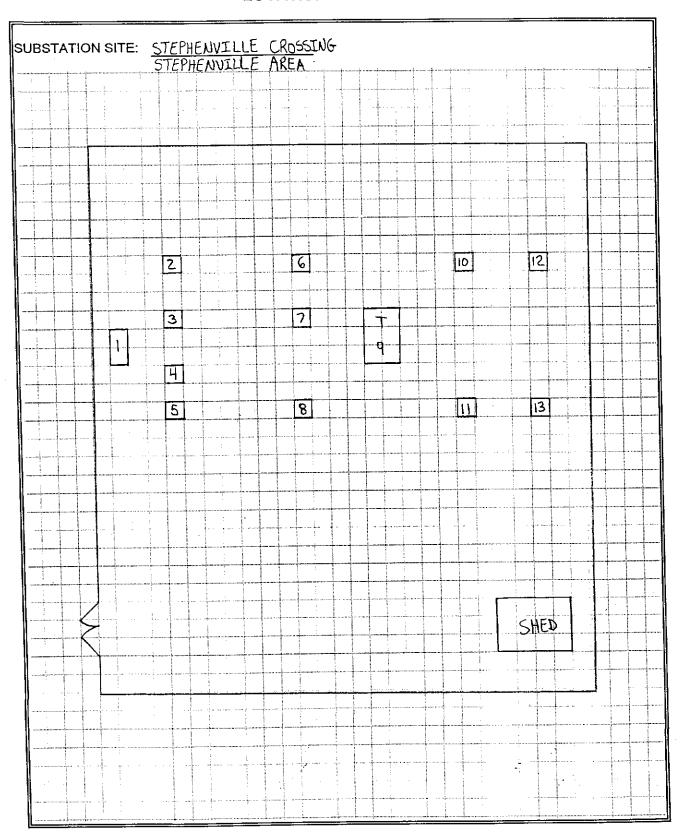


SUBSTATION SITE: Stephenville Crossing DATE INSPECTED: 24-Apr-02 West			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
407L-GS2 Structure	One hairline crack extends down from top edge of pad approx. 75mm with 1mm separation. Minor scaling also present on top surface of pad (44 Mpa).	Type A Repair for scaling & Type B for cracking	3
· · · · · · · · · · · · · · · · · · ·			
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	









SUBSTATION SITE:	Stephenville Gas Turbine	DATE INSPECTED:	25-Apr-02
	West	-	

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - STV-	Minor scaling on top surface of pad,		4
405L-DB	remainder of pad is in good condition		
Structure	(28 Mpa).		
High Voltage			
#2 - STV-	Minor scaling on top surface of pad,		4
405L-B	remainder of pad is in good condition		
Sul Hex	(34 Mpa).		
Breaker			
#3 - STV-	Minor scaling on top surface of pad,		4
105L-GS	remainder of pad is in good condition		
ructure	(36 Mpa).		
gh Voltage			- ·
#4 - STV-	Minor scaling on top surface of pad,		4
401L-B	remainder of pad is in good condition		_
Sul Hex	(36 Mpa).		
Breaker			
#5 - STV-	Minor scaling and pitting on top surface	Type A Repair	3
401L-DB	of pad. Remainder of pad is in good		
Structure	condition (34 Mpa).		
High Voltage			
#6 - STV-	Minor scaling on top surface of pad,		4
407L-B	remainder of pad is in good condition		·
Oil Circuit	(32 Mpa).		
Breaker			

Pri	ority Rating	Priority Description	Recommended Time Frame
_	1	Immediate corrective action required	within 1 year
	2	Corrective action required to avoid increasing costs to repair	within 3 years
	3	General maintenance item	within 5 years
	4	No corrective action or maintenance required at this time	



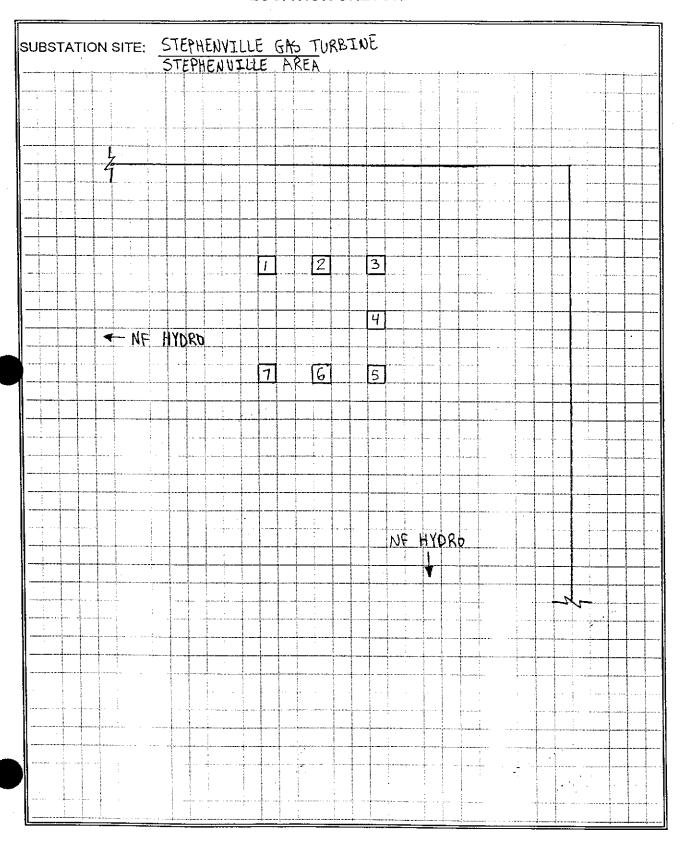


INSPECTION OF CONCRETE PADS & FOUNDATIONS					
SUBSTATIO	N SITE: Stephenville Gas Turbine West	DATE INSPECTED: 25-Apr-02			
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating		
#7 - STV- 407L-DB	Minor scaling and alligator cracking on top surface of pad (44 Mpa).	Type A Repair	3		
Structure High Voltage					

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	











SUBSTATION SITE

St. George's

DATE INSPECTED:

24-Apr-02

		D	Data stand
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#1 - STG-	Minor scaling on top surface of pad.	Future Monitoring	4
407L-GS3	Remainder of pad is in good condition		_
Structure	(34 Mpa).		_
High Voltage			
#2 - STG-	Rough finish on top surface of pad.		4
T2-A	Remainder of pad is in good condition		
Structure	(30 Mpa).		_
High Voltage			
#3 -	Rough finish and minor scaling on top	Future Monitoring	4
`tructure	surface of pad. One corner of pad seems to		
. igh Voltage	have been repaired and remains in good		
	condition (34 Mpa).		
			-
#4 - STG-	One hairline crack midway across pad	Type C Repair for crack & Type A Repair	2
T1-A	that extends down side approx. 150mm	for scaling.	4
Structure	and has 2mm separation. Minor scaling on		_
High Voltage	top surface of pad (35 Mpa).		_
#5 - T2	Additional section poured alongside		.4
			4
200218	(44 Mpa).		_
			3
#6 -	Minor pitting on top surface of pad and	Type A Repair	 3
Structure	minor spalling on edges of pad. Remainder of pad is in good condition (36 Mpa).		_
			\dashv

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	



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St. George's

West

DATE INSPECTED: 24-Apr-02

Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating
#7 - STG-	Rough finish on top surface of pad.		4
403L-B	Otherwise pad is in good condition		
Oil Circuit	(26 Mpa).		
Breaker			
#8 - STG-	Minor scaling on top part of pad.	Future Monitoring	4
403L-B	Remainder of pad is in good condition		
SYNIZ	(34 Mpa).		
Breaker			-
#9 -	Good condition (42 Mpa).		4
`tructure			
h Voltage			1
			1
	· ·		7
			_
#10 - T1	Rough finish on top surface of pad.		4
Transformer	Otherwise pad is in good condition		,
200316	(24 Mpa).		7
			_
#11 - STG-	Minor scaling on top surface of pad. One	Type C Repair for crack & Type A Repair	2
T1-D	hairline crack that extends from top edge	for scaling.	
Structure	of pad down approx 200mm and has		-
			7 /
	pad is in good condition (28 Mpa).		┪ 1
			7
#12 -	Rough finish and minor scaling on top	Future Monitoring	4
Metering	surface of pad. Otherwise pad is in good		
Box	condition (31 Mpa).		┪
Structure			-
			┪ ┃
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Priority Rating					
	· 1				
	2				
	2				

Priority Description

Recommended Time Frame

1			
2			

Immediate corrective action required

within 1 year

Corrective action required to avoid increasing costs to repair

within 3 years

General maintenance item

within 5 years

No corrective action or maintenance required at this time





SUBSTATION SITE: St. George's DATE INSPECTED: 24-Apr-02

		D	Priority
Fdn/Pad Type & No.	General Condition	Recommendations	Rating
#13 - Structure	Three small hairline cracks approx. 75mm long with approx 1mm separation. Minor	Type A & B Repair	2
Low Voltage	chipping and scaling on top surface of pad (40 Mpa).		
#14 - STG-	Minor scaling and spalling on top surface	Type A Repair	3
01-BP Structure	of pad. Remainder of pad is in good condition (35 Mpa).		
Low Voltage	Condition (33 Mpa).		
#15 - STG-	Minor scaling and rough finish on top	Future Monitoring	4
`1-R .cecloser	surface of pad. Remainder of pad is in good condition (40 Mpa).		
#16 - STG-	Minor scaling on top surface of pad.	Future Monitoring	4
02-R Recloser	Remainder of pad is in good condition (31 Mpa).		
#17 - STG-	Minor scaling on top surface of pad.	Future Monitoring	4
02-BP Structure Low Voltage	Remainder of pad is in good condition (38 Mpa).		

Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





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INSPECTION OF CONCRETE PADS & FOUNDATIONS								
SUBSTATIO	N SITE: Wheelers West	DATE INSPECTED: 24-Apr-02	· · · · · · · · · · · · · · · · · · ·					
Fdn/Pad Type & No.	General Condition	Recommendations	Priority Rating					
	Hairline cracking and associated alligator	Type C Repair	2					
Electric	cracking throughout top of pad. Most		_					
Breaker	cracks are approx. 150mm long with							
	4-5mm separation (38 Mpa).		_					
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Priority Rating	Priority Description	Recommended Time Frame
1	Immediate corrective action required	within 1 year
2	Corrective action required to avoid increasing costs to repair	within 3 years
3	General maintenance item	within 5 years
4	No corrective action or maintenance required at this time	





