

ENVIRONMENTAL ASSESSMENT REGISTRATION

Name of Undertaking:

TEMPORARY STORAGE OF NORM WASTE

Proponent:

(i) **Name of Corporate Body**

Island Waste Management Inc.

(ii) **Address**

137 LeMarchant Road
St. John's, Newfoundland
A1C 2H3

(iii) **Chief Executive Officer**

Name: Paul Antle, B.Sc., M.Eng. CCEP

Official Title: President and CEO

Address: 137 LeMarchant Road, St. John's, NF, A1C 2H3

Telephone No.: (709) 726-0561

(iv) **Principal Contact Person for purposes of Environmental Assessment:**

Name: Roy Baker, B.Sc.

Official Title: Facility Manager/Chemist

Address: Incinerator Road, St. John's, NF

Telephone No.: (709) 834-7350

The Undertaking:

(i) **Nature of The Undertaking:**

Island Waste Management is requesting approval for an amendment to its existing Certificate of Approval to operate a Special Waste Transfer Station to include the temporary storage of Naturally Occurring Radioactive Material (NORM) contaminated waste. The Company prepared and submitted a comprehensive NORM Management Plan to the Department of Environment in October 2001 for the safe handling and temporary storage of NORM generated by the offshore oil industry in Newfoundland.

(ii) Purpose/Rationale/Need for the Undertaking:

Due to the production of NORM waste by the offshore oil industry and the lack of any facilities in Newfoundland to handle such waste, IWM has identified a need to expand our suite of hazardous waste services to accommodate our existing customers.

Description of The Undertaking:

(i) Geographical Location:

The proposed storage location will be within the existing property boundary of IWM's existing Special Waste Transfer Facility located on Incinerator Road off Route 61 near Foxtrap in the Municipality of St. John's. The Facility is located approximately 500 ft off the main road and is fenced to prevent unauthorized access. The property has a total area of approximately 0.8 hectares. Please refer to Appendix 1 for the geographic location of the existing facility and Appendix 2 for the existing site plan.

(ii) Physical Features:

The existing Facility is located in the Southeast Corner of the site (Appendix 2). It consists of a single story steel-framed building (approximately 4000 ft² in size) and lay down yard. To the North of the Building is a bermed containment area for barrel storage and two tanks for the storage of sump water. The approximate size of the existing Facility is 80 feet long by 50 feet wide. A gravel access road exists from Incinerator Road to the western property boundary. A gravelled parking area is provided on the South side of the Facility.

Island Waste Management intends to use space within its existing storage yard to accommodate NORM contaminated material. A dedicated storage and containment system will be employed and positioned to the Northeastern side of the property (Appendix 3) having a dimension 40 feet long by 10 feet wide (400 ft²). The containment system will be of steel construction and secured to prevent unauthorized access.

A 70-meter deep-water well is located at the rear (Southeast) of the building and a septic tank and disposal field is located at the front (Northwest) of the building. A wastewater/sludge treatment facility was once located to the Northwest of the building and a rendering plant exists just further North. The former Foxtrap Landfill and incinerator site exists to the East of the property. The land along the South boundary of the site is vacant while a scrap-yard and vacant land exists to the West of the site.

The site is currently equipped with 4 groundwater-monitoring wells that are regularly sampled to ensure the environmental integrity of the site. A log of the monitoring samples are kept onsite for inspection and review at all times. Since the facility was established in 1995 there has not been any impact to the groundwater in the area.

The site and immediate surrounding area is currently zoned as Industrial General (IG).

(iii) Construction:

The proposed NORM storage area will be approximately 400ft² and be positioned on the Northeast side of the property. The containment system will be constructed of steel and include the following components:

- Completely self contained steel containment shed
- 1 ft high bermed walls, no floor drains
- Corrugated steel floor
- Complete compliment of emergency response equipment

In addition to the above the following items will also be implemented:

- Daily visual inspections and log system
- Regular monitoring for gamma radiation activity levels
- Complete supply of appropriate PPE
- Comprehensive inventory management and tracking system
- Continuous upgrading and training of personnel

Regional surface drainage varies with topography but appears to be predominantly to the west and north. Surface drainage at the site is to the west or northwest towards the stream and gravel access road. Drawings of the site indicate that underground services consist of a septic system and water lines from the water well.

Based on existing data and previous experience in the area, the principal natural overburden material, beneath the superficial fill material consists of sand and gravel glacial till which directly overlies bedrock.

As the storage of NORM will be in a contained system, the risk of ground contamination from any spillage will be minimal.

(iv) Operation:

Island Waste Management will continue to provide proven cost effective and environmentally safe waste management solutions to our clients in a manner that complies with all conditions of our Certificate of Approval and applicable environmental legislation.

IWM will identify and classify wastes through NORM surveys and radiochemical analysis. NORM waste will be accompanied by appropriate documentation and received at our secure site, which is fenced to prevent unauthorized entrance. The waste will be segregated and separately stored away from other wastes in appropriate leak proof containers located in the designated storage location.

Quantities and level of radioactive materials stored will be such that annual affective dose limits will not exceed 1 mSv. As well, quantities and levels of radioactivity stored will be such that a dose limit of 1 mSv will not be exceeded beyond that property boundary of IWM's special waste transfer facility site.

NORM waste will be shipped from the facility within one (1) year from the date of reception.

The operation will be in effect for as long as the services are required from our clients. NORM waste will subsequently be sent for decontamination, disposal or longer-term storage to licensed facilities outside Newfoundland.

Potential sources of contamination during the operation of the NORM Storage Area:

Spills of waste materials. Since the containment system is designed to contain any spills within the confines of the container, land or groundwater contamination should not be an issue. Emergency response equipment and spill kit are located at the Facility which staff are fully trained in the proper use during spill cleanup events.

IWM anticipates receiving only NORM waste that is properly packaged and documented in accordance with regulatory requirements. Given that NORM will not be consolidated or treated on location the potential for pollution is very low.

Island Waste Management Inc. has developed a NORM Management Plan and a Contingency Plan to outline a predetermined set of instructions with the aim to provide a prompt and coordinated response to any foreseeable emergency associated with the operation of the Facility and the storage of NORM. These plans cover the reporting, containment, removal and clean up of a spill or fire of any material stored on the property. The goal of these plans is to assist in developing a high level of preparedness for response to a spill or fire situation. As well, the objectives of Island Waste Management's plans include ensuring the

safety of employees, contractors and the public, developing an effective incident reporting system and minimizing any potential damage to the environment or the facility.

Other environmental protection measures will include:

- Mandatory load inspections for each shipment of NORM waste will be completed and each container checked for integrity, to ensure all containers are securely sealed and comply with all shipping requirements;
- Only transport Canada Approved shipping containers are utilized;
- Procedures to ensure that all waste is described accurately on a waste manifest and identified on a waste profile sheet with documentation to accompany the waste shipment;
- That IWM's transport vehicles are lined for containing any breeches with a spill pan and spill kits; and
- That IWM reserves the right to refuse any waste that does not conform to the Transportation of Dangerous Goods Act and Regulations (TDG) and is not accompanied by the appropriate documentation.

NORM waste will typically be packaged in 205 L open top metal drums secured tightly with a lid and ring.

(v) Occupations:

Occupations associated with the storage of NORM will not increase and can easily be incorporated into the responsibilities of IWM's existing professional staff.

(vi) Project Related Documents:

IWM's NORM Management Plan
Canadian Guidelines for the Management of Naturally Occurring Radioactive Materials (NORM)

Approval of the Undertaking

The main Permit associated with this undertaking, requiring amendment, is the existing Certificate of Approval # SJ-WMS93-06848 dated June 25, 1993 and the Amended C of A # SJ-WMS93-06848A dated June 11, 1998 for the establishment and operation of a Special Waste Transfer Station.

Schedule:

The anticipated date for approved commencement of the temporary storage system for NORM is March 30, 2002.

Funding:

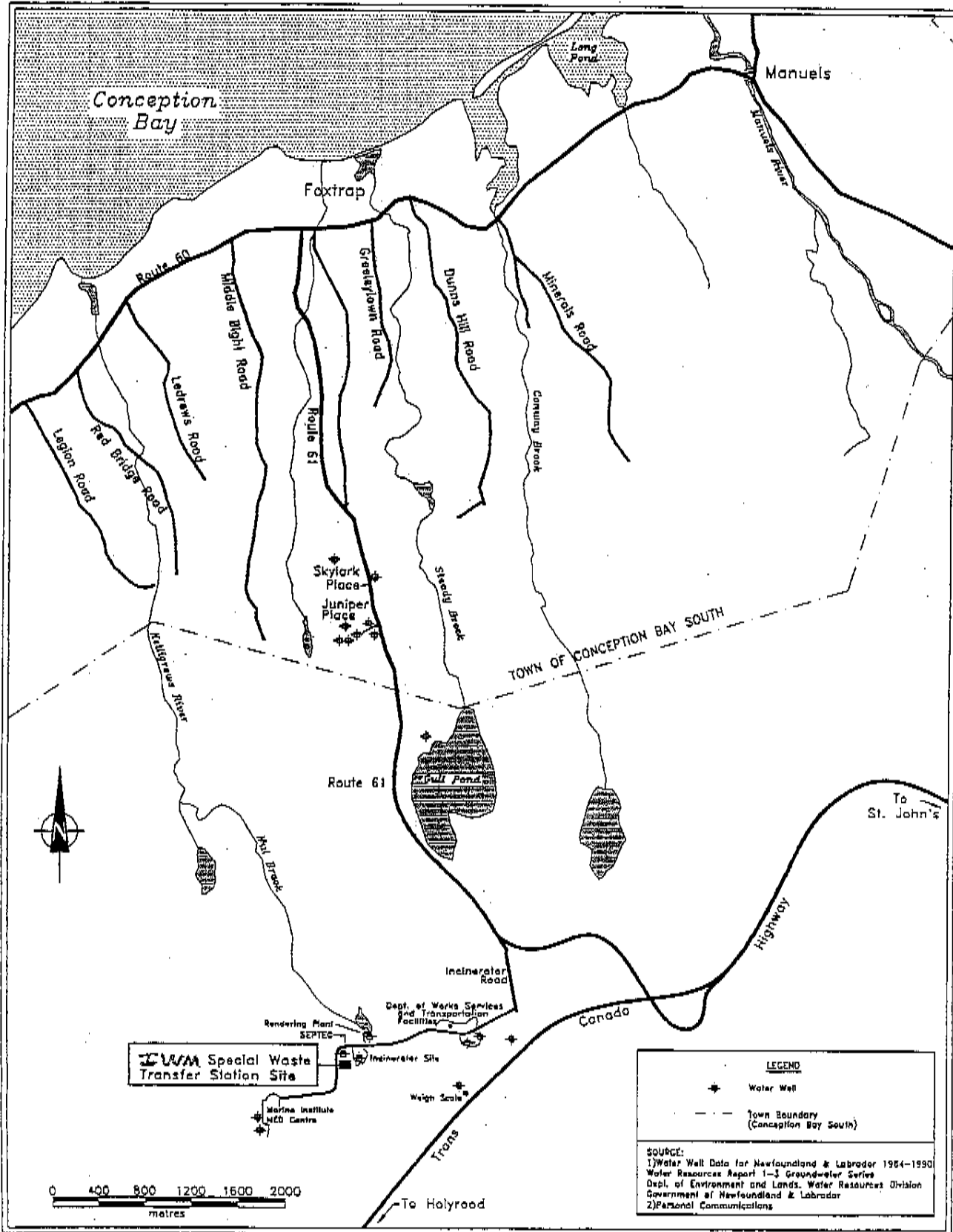
This undertaking does not depend upon a grant or loan of capital funds from any Government Agency.

An estimate of capital cost associated with the undertaking is \$10,000.

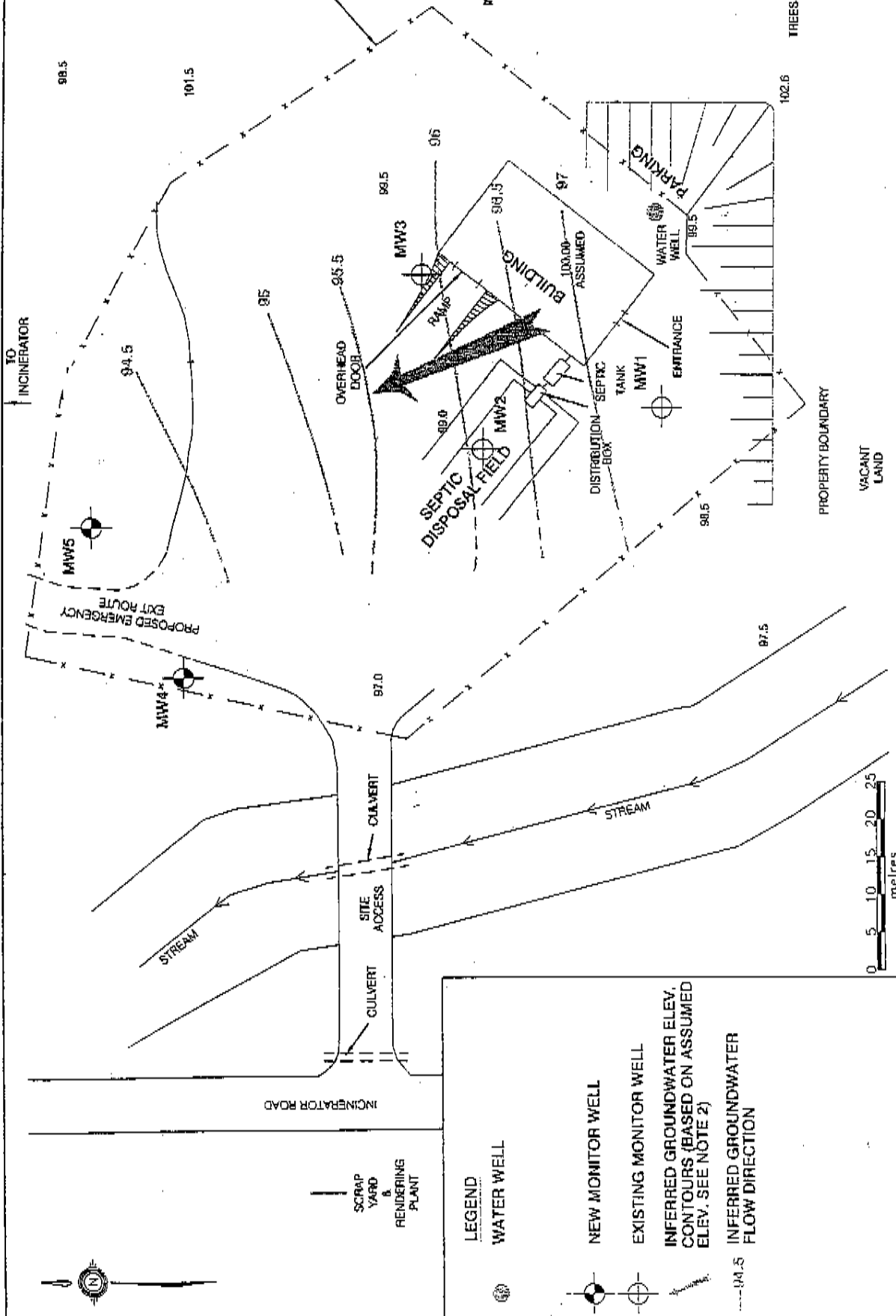
January 18th, 2002
Date

Original signed by Paul Antle
Signature of Chief Executive Officer

APPENDIX 1 – IWM GEOGRAPHIC LOCATION



APPENDIX 2 - FOXTRAP - INCINERATOR SITE EXISTING FACILITY SITE PLAN



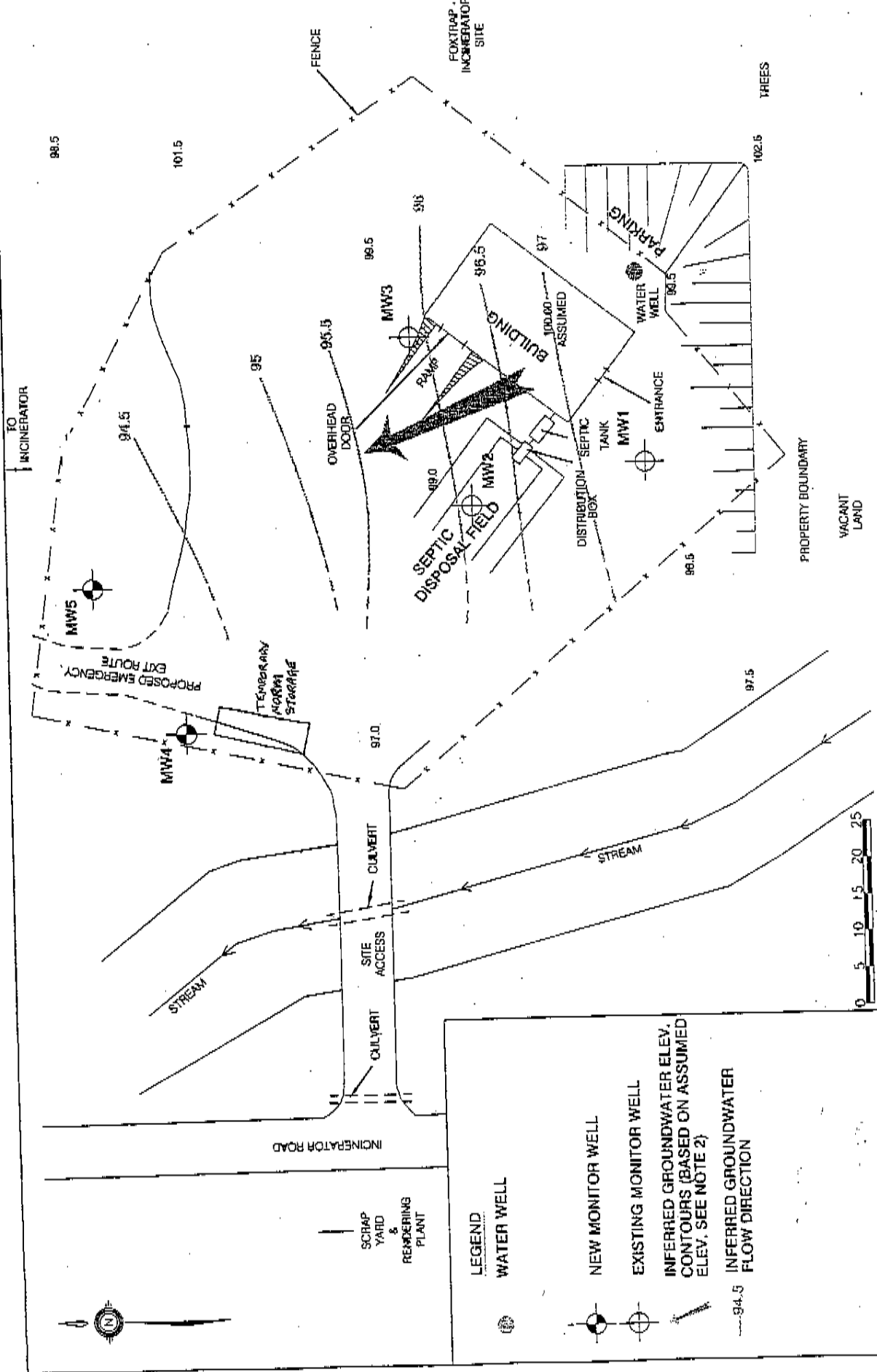
SCALE:	AS SHOWN	DATE:	MAR. 12, 1999
DRWN:	D.K.	CHKD:	<i>jd</i>
DRAWING NO.:	85792-SK1		

ISLAND WASTE MANAGEMENT

SPECIAL WASTE MANAGEMENT FACILITY, FOXTRAP, NF

SITE LOCATION PLAN

APPENDIX 3 - LOCATION OF NORM TEMPORARY STORAGE AREA



SCALE:	AS SHOWN	DATE:	MAR. 12, 1999
DRAWN:	D.K.	CHECKED:	<i>[Signature]</i>
DRAWING NO.:	85792-SK1		

ISLAND WASTE MANAGEMENT

SPECIAL WASTE MANAGEMENT FACILITY, FOXTRAP, NF

SITE LOCATION PLAN