



EXTERNAL EMERGENCY PLAN

PUBLIC VERSION

Bellanaboy Bridge Gas Terminal (‘Corrib Gas Terminal’)

**Bellanaboy Bridge
Bellagelly South
Barnatra
Ballina
Co. Mayo**

2020

Establishment Key Information

Name of facility	'Bellanaboy Bridge Gas Terminal' Also known as 'Corrib Gas Terminal'
Address	Bellanaboy Bridge, Bellagelly South, Barnatra, Ballina, Co. Mayo F26 V275
Location	On the R314 from Belmullet to Ballycastle. Refer to Appendix 1, Drawings 1 and 2, showing the location of the site.
Coordinates	Latitude: 54.234635 Longitude: -9.742629
Activities undertaken	The terminal receives gas from the Corrib Reservoir via the Corrib Gas Onshore Pipeline which runs from Glengad to Aughooose to the terminal site. On the terminal, liquids are separated from the gas and the gas is pressurised to export quality pressure before being transmitted off site via the Board Gáis Networks Pipeline. The main facilities at the terminal are the processing system and the methanol and condensate storage tanks. Refer to Section 3.2 for further information.
Maximum number of people on site	90 during normal operations day shift 24 during normal weeknights 18 during normal weekdays
Hours of operation	The facility operates 24hrs per day 365 days per year. Normal working hours are Monday to Friday 07:00hrs to 17:00hrs.
Access onto the terminal	Main entrance is from the R314. Alternative access is via the side gate from the L5244.
Special consideration	The bringing onto site of potential ignition sources is not permitted without consultation with the VEPIIL Site Main Controller based in the Control Room.
Reference location map	

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ISSUE OF PLAN AND RECORD OF EXERCISES

Record of Issue

This public access version of the External Emergency Plan is intended for broad dissemination. This version of the plan includes the entire External Emergency Plan, except contact details and other security sensitive information. The information omitted has no bearing on the overall plan.

Issue Number	Date	Description
1	March 2015	First issue.
2	February 2020	Updated to reflect the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015, to revise the major accident hazard scenarios, to revise the capacity of tanks, to rename the access gates and to change the operatorship from Shell Exploration and Production Ireland Limited to Vermilion Exploration and Production Ireland Limited.

Record of Exercises

Exercise Type	Exercise Type	Description
15th July 2014	Tabletop	Tabletop exercise to test and validate the External Emergency Plan.
07th March 2018	Live exercise	Live exercise to test and validate the External Emergency Plan, in particular the initial response procedures of the principal response agencies.
21st Nov 2019	Live exercise	Live exercise to test and validate the External Emergency Plan, in particular site procedures that form part of an inter-agency response to a major accident.

PUBLICATION OF PLAN

Publication of Plan

This plan is a controlled document. An up to date version of the plan will be available at the following locations:

- www.mayo.ie
- Area Managers Office, Health Service Executive, First Floor, St Mary's Headquarters, Castlebar, Co. Mayo.
- Belmullet Garda Station, Fr. Mulhern Crescent, Belmullet, Co. Mayo.
- Mayo Fire Service, Fire Brigade HQ, Humbert Way, Castlebar, Co. Mayo.
- Shell E&P Ireland Limited, 4 Údarás na Gaeltachta, Belmullet, Co. Mayo.

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ABBREVIATIONS

BBGT	Bellanaboy Bridge Gas Terminal
BLEVE	Boiling Liquid Expanding Vapour Explosion
CAS No.	Chemical Abstracts Service Number
CCTV	Closed Circuit Television
COMAH	Control of Major Accident Hazards
CRO	Control Room Operator (VEPIL)
EHT	Emergency Holding Tank
EIM	Emergency Incident Manager (VEPIL)
ERT	Emergency Response Team (VEPIL)
ESD	Emergency Shutdown
ESDV	Emergency Shutdown valve
HPU	Hydraulic Power Unit
HSA	Health and Safety Authority
HSE	Health Service Executive
IUPAC	International Union of Pure and Applied Chemistry
LRT	Location Response Team (VEPIL)
LUP	Land Use Planning
LVI	Landfall Valve Installation
MAH	Major Accident Hazard
MLO	Media Liaison Officer
NAS	National Ambulance Service
NEPNA	National Emergency Plan for Nuclear Accidents
NEOC	National Emergency Operations Centre
NEOC	No Observed Effect Concentration
OTTU	Onshore Terminal Termination Unit
PIZ	Public Information Zone
PFP	Passive Fire Protection

PPE	Personal Protective Equipment
PRA	Principal Response Agency
QRA	Quantitative Risk Analysis
RTA	Road Traffic Accident
RVP	Rendezvous Point
SMC	Site Main Controller (VEPIL)
SW	Surface Water
TOC	Total Organic Carbon
VCE	Vapour Cloud Explosion
VEPIL	Vermilion Exploration and Production Ireland Limited
WWTP	Waste Water Treatment Plant

GLOSSARY OF TERMS

Term	Description
Ambulance Loading Point / Area	An area close to the Casualty Clearing Station where casualties are transferred to ambulances for transport to hospital.
Casualty Clearing Station	The area established at site by the National Ambulance Service where casualties are collected, triaged, treated and prepared for evacuation.
Central Competent Authority	The Health and Safety Authority as defined by the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 209 of 2015. It is the authority with responsibility for ensuring compliance with the regulations.
COMAH Regulations	Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 209 of 2015.
Consultation Distance	A distance or area relating to an establishment, within which there are potentially significant consequences for human health or the environment from a major accident at the establishment, including potentially significant consequences for developments such as residential areas, buildings and areas of public use, recreational areas and major transport routes. This area is advised from the Central Competent Authority to the Planning Authority.
Controller of Operations	The person given authority by a principal response agency to control all elements of its activities at and about the site. The officer in command of the initial response of each principal emergency service should be the principal response agency's Controller of Operations until relieved through the agency's pre-determined process.
Cordons	The designated perimeters of an emergency site, with an outer cordon, inner cordon, traffic cordon and a danger area cordon.
Danger Area	An area where there is a definite risk to personnel, over and above that which would normally pertain at emergency operations.

Dangerous Substance	A substance or mixture covered by Part 1 of Schedule 1 or listed in Part 2 of Schedule 1 of the COMAH Regulations, including in the form of a raw material, product, by-product, residue or intermediate.
Emergency Response Centre	Incident Control Point where the VEPIL BBGT Emergency Response Team meet.
Forward Control Point	A location close or in the immediate vicinity of the scene of the incident from which the emergency services direct tactical response operations.
Framework for Major Emergency Management	A framework enabling the principal response agencies to prepare for and make a co-ordinated response to major emergencies resulting from events such as fires, transport accidents, hazardous substance incidents and severe weather.
Holding Area	An area at the site, to which resources and personnel, which are not immediately required, are directed to await deployment.
Incident Control Point	The location at the site of the emergency from which organisations control, direct and co-ordinate their organisation's response to an emergency.
Lead Agency	The principal response agency that is assigned the responsibility and mandate for the co-ordination function.
Local Competent Authorities	An Garda Síochána, the Health Service Executive and the relevant Local Authority as defined by the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 209 of 2015.
Major Accident	An occurrence such as a major emission, fire, or explosion resulting from uncontrolled developments in the course of the operation of any establishment covered by the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015, and leading to serious danger to human health or the environment, immediate or delayed, inside or outside the establishment, and involving one or more dangerous substances. (Defined by the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 3209 of 2015.)

Major Accident Hazard Scenario	This is an undesirable event or sequence of events that could lead to a major accident.
Major Emergency	Any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services, or damage to property, the environment or infrastructure beyond the normal capabilities of the principal emergency services in the area in which the event occurs, and requiring the activation of specific additional procedures to ensure effective, co-ordinated response.
Major Emergency Management	The range of measures taken under the five stages of emergency management, i.e. hazard analysis and risk assessment, mitigation / risk management, planning and preparedness, co-ordinated response and recovery.
Major Emergency Plan	A plan prepared by each of the principal response agencies.
On-site Co-ordinator	The person (Controller of Operations) from the lead agency with the role of co-ordinating the activities of all agencies responding to an emergency.
On-site Co-ordination Group	A group that includes the On-site Co-ordinator, the Controllers of Operations of the principal response agencies, representatives from VEPIL and others as appropriate.
On-Site Co-Ordination Point	Specific facility where the On-site Co-ordinator is located and the On-Site Co-ordination Group meet.
Public Information Zone (PIZ)	The zone referred to in Regulation 25(4), (called the 'specified area' in the previous regulations (SI 74 of 2006)) for which the operator shall ensure that all that all persons likely to be affected by a major accident originating at that establishment receive regularly and in the most appropriate form, without having to request it, clear and intelligible information on safety measures and requisite behaviour in the event of a major accident.
Principal Response Agencies (PRA's)	The agencies designated by the Government to respond to Major Emergencies i.e. An Garda Síochána, the Health Service Executive and the Local Authorities.
Rendezvous Point (RVP)	The Rendezvous Point is the location to which all resources responding to the emergency site are directed in the first instance. An Garda Síochána will organize the Rendezvous Point.

Other services may have one of their officers present to direct responding vehicles into action or to the Holding Area.

Seveso Site

Industrial site that, because of the presence of dangerous substances in sufficient quantities, is regulated under Council Directive 2012/18/EU, commonly referred to as the Seveso III Directive. The Seveso Directive is implemented in Ireland through the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 209 of 2015 and the Planning and Development Acts 2000-2015 and Regulations 2001-2015.

Upper Tier Seveso Establishment

An establishment where dangerous substances are present in quantities equal to or in excess of the quantities listed in Column 3 of Part 1 or in Column 3 of Part 2 of Schedule 1, where applicable using the summation rule laid down in note 4 to Schedule 1, of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 209 of 2015.

INTRODUCTION

European Union Directive, Council Directive 2012/18/EU on the Control of Major Accident Hazards applies to industrial establishments where dangerous substances are held in quantities above specified threshold limits.

The aim of the Directive, referred to as Seveso III, is the prevention of major accidents involving dangerous substances and the limitation of the consequences for humans and the environment if such accidents occur.

The Directive, implemented in Ireland under the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (COMAH Regulations), requires operators handling dangerous substances above specified thresholds, categorised as Upper Tier Seveso Establishments, to provide safety reports, implement a safety management system and establish internal emergency plans.

Bellanaboy Bridge Gas Terminal is classified as an Upper Tier Seveso Establishment.

In accordance with the COMAH Regulations, this External Emergency Plan has been prepared by the Local Competent Authorities (An Garda Síochána, the Health Services Executive and Mayo County Council) in consultation with the Operator (Vermilion Exploration and Production Ireland Limited), the Central Competent Authority and the Environmental Protection Agency.

The purpose of this plan is to ensure the protection of people and the environment through agreed procedures for the effective and co-ordinated response in the event of a major accident / incident or an uncontrolled event which could be reasonably expected to lead to a major accident at the Bellanaboy Bridge Gas Terminal (BBGT).

This plan should be read and implemented in conjunction with:

- The Bellanaboy Bridge Gas Terminal Internal Emergency Response Plan (Doc. No. COR-52-SH-0037) (referred to hereafter as VEPIIL Internal Emergency Response Plan).
Note that the plan currently in operation was issued in October 2018 (Revision 6).
- The Major Emergency Plans of:
 - An Garda Síochána, Mayo Division
 - Health Service Executive West
 - Mayo County Council

In accordance with the COMAH Regulations, this plan will be reviewed and tested as often as circumstances require, but at a minimum, every 3 years. Any changes at the Bellanaboy Bridge Gas Terminal which would warrant an update to this plan will be notified by the VEPIIL Operations HSE Manager to the Health and Safety Authority and the Local Competent Authorities.

The scope of this plan relates to emergency events associated with the BBGT only. Emergency response provisions for the Land Valve Installation and Corrib Gas Onshore Pipeline are covered under the Corrib Gas Onshore Pipeline External Emergency Response Plan (Doc. No. COR-52-SH-0039B).

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Section 1 ACTIVATION AND STAND DOWN

1.1 When will the Plan be Activated?

This plan will be activated immediately when:

- A major accident occurs¹ or an uncontrolled event occurs which could be reasonably expected to lead to a major accident.
and / or
- An incident occurs which is beyond the normal capabilities of the BBGT Location Response Team and / or is a major incident which requires external emergency services support.

A major accident is an occurrence, such as a major emission, fire or explosion, resulting from uncontrolled developments in the course of the operation of Bellanaboy Bridge Gas Terminal, leading to serious danger to human health or the environment, immediate, or delayed, inside or outside the establishment, and involving one or more dangerous substances.

A dangerous substance is defined by the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 as a substance or mixture —

- (a) Covered by Part 1 of Schedule 1 of the regulations, or
- (b) Listed in Part 2 of Schedule 1 of the regulations,

including in the form of a raw material, product, by-product, residue or intermediate.

Refer to Appendix 2 for the name, CAS Number, Hazard Statements, inventory and information on the physical, toxicological and chemical characteristics of the dangerous substances present on the terminal.

Safety Data Sheets for the COMAH dangerous substances will be available to the emergency services at the Control Room upon arrival on-site.

1.2 Who can Activate the Plan?

This plan can be activated by any of the following duty personnel:

- The BBGT Location Response Team (LRT) Site Main Controller
- The VEPIL Emergency Response Team (ERT) Emergency Incident Manager

This plan can also be activated by the responding emergency services if it appears that a major accident / incident has occurred at the establishment and VEPIL personnel have not activated it.

Refer to Section 1.6 for initial actions and refer to Section 2 for key actions that should be implemented by VEPIL and the PRA's upon activation of this plan.

Note, each principal response agency has a Major Emergency Plan for their agency that can be activated by an Authorised Officer in the event that an accident / incident at the BBGT escalates into a major emergency under the Framework for Major Emergency Management.

¹ The term 'major accident' is used to reflect its usage and definition in the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015. Note that a 'major accident' at a Seveso Upper Tier establishment may not necessarily be of sufficient impact on the capabilities of the emergency services as to require the declaration of a Major Emergency under the Framework for Major Emergency Management.

1.3 Activating the Plan

How will the plan be activated?

The Control Room Operator (CRO), a representative of VEPIL, will make a 999 or 112 telephone call to alert the emergency services.

- **Fire Service:** Mayo Fire Service will be alerted through West Region Fire Control (Camp West) via the 999/112 call.
- **Ambulance:** National Ambulance Service will be alerted through the National Emergency Operations Centre (NEOC) via the 999/112 call.
- **Gardaí:** An Garda Síochána will be alerted through the Regional Communications Centre via the 999/112 call.

When making the 999/112 telephone call, the call will be initially be answered by ECSA, the emergency call answering service. The designated caller should ask the call operator to be transferred to each of the emergency services required. The caller will ask initially for the most relevant emergency service, in most cases, but not exclusively, this is likely to be the Fire Service.

It is the responsibility of the caller to ensure that each of the emergency services required has been contacted.

1.4 Information to be Provided to the Emergency Services

The Control Room Operator will report the incident and notify the emergency services of activation of this plan by providing the following information to each of the emergency services:

- Site name and address
- Location and type of incident
- Hazards, both current and potential, associated with the incident
- Access to the incident and the designated RVP
- Number of casualties including the type and severity of injuries
- Emergency Services required
- Additional information, if available, such as the substances involved.

Information should be provided to the emergency call operator using the ETHANE format.

The ETHANE acronym is an agreed communications protocol used for imparting and receiving key information and associated details in a time pressured emergency situation. ETHANE enables the information to be communicated quickly and effectively and is intended to prompt the communicator to remember, or seek out, specific information prior to making the emergency call.

Prior to the arrival of the emergency services on-site, additional relevant information and updates should be communicated to the emergency services as it becomes available.

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Information to be Provided to the Emergency Services

EACH EMERGENCY SERVICE (FIRE SERVICE, HSE AND GARDAÍ) MUST BE CONTACTED BY THE CONTROL ROOM OPERATOR

The call procedure is a guide and may vary. However, during the call, the CRO must ensure the following information has been communicated:

1. The site is an Upper Tier Seveso Site
2. The External Emergency Plan is being activated
3. All information that forms the ETHANE acronym

Call Procedure

RESPONSIBILITY OF THE CONTROL ROOM OPERATOR

When you dial 999 / 112, the ECAS operator will ask which emergency service is required.

You should ask to be transferred to each of the emergency services required. You should speak to the most relevant emergency service required first. This is likely to be the Fire Service.

ECAS will transfer you to the emergency service requested.

The emergency service call operator requires certain information before they request incident details.

They will likely ask the following questions:

1. What is your contact number?
Provide phone number
2. What is your name?
Provide name and position
3. What is the address of the emergency?
Corrib Gas Terminal, Bellanaboy, Belmullet, Co. Mayo, F26 V275
4. What is the emergency?
State the site is an Upper Tier Seveso Site and you are activating the External Emergency Plan. Advise you will give details of the incident in ETHANE format.

- | | |
|---------------------------|--|
| E Exact Location | - Specify the incident location. Be as specific as possible. |
| T Type of Incident | - Fire, explosion, chemical incident, etc. |

- H Hazards** - Current and potential. E.g. Fire, explosion, smoke
- A Access** - Specify RVP (based on wind direction) and wind direction
- N Number of casualties** - Number of casualties, type and severity of injuries.
- E Emergency Services** - Present and required.

Note : After finishing with the first emergency service required, **WAIT ON THE LINE** to speak to the ECAS operator again by asking **“OPERATOR ARE YOU THERE?”** Request to be put through to the next emergency service required. If this does not happen, redial 999 / 112 and ask for the next emergency service required.

Note : Prior to the arrival of emergency services on-site, additional relevant information and updates should be communicated to each of the emergency services as it becomes available.

The official name of the facility is the ‘Bellanaboy Bridge Gas Terminal’, however in order to prevent any confusion during the Emergency Response effort the term ‘Corrib Gas Terminal’ will be used.

1.5 Procedure for Communications Centres when Plan is Activated

In the event of activation of this plan, the principal response agencies communications centres will follow the procedures as outlined below.

An Garda Síochána Regional Communications Centre

On activation of this plan, the Garda Communications Centre will:

1. Mobilise resources in accordance with pre-determined attendance.
2. Notify On-Site Co-ordination Team for Bellanaboy Bridge Gas Terminal. This team consists of a designated Controller of Operations and Media Liaison Officer.
3. Sergeant-in-Charge or Senior Garda will direct the Duty Sergeant in Belmullet Garda District to attend the designated On-site Co-ordination Point.
4. Notify Chief Superintendent, Superintendent, Ballina and Inspector with responsibility for Belmullet.
5. Notify West Region Fire Control (Camp West) Centre and provide details of the ETHANE message received.
6. Notify National Emergency Operations Centre (NEOC) and provide details of the ETHANE message received.

National Emergency Operations Centre (NEOC)

On activation of this plan, the NEOC will:

1. Mobilise resources to the designated RVP in accordance with the pre-determined attendance.
2. Provide relevant information to responding units as soon as it becomes available including safety data on the chemicals involved in the incident if appropriate.
3. Consider the need to activate aeromedical resources and / or decontamination requirements.
4. Alert receiving hospitals.
5. Notify the ACMT as appropriate.
6. Provide updates to National Ambulance Service (NAS) representative on Area Crisis Management Team as appropriate.
7. Notify West Region Fire Control (Camp West) Centre and provide details of the ETHANE message received.
8. Notify Garda Communications Centre and provide details of the ETHANE message received.

Regional Fire Control Centre

On activation of this plan, the Regional Communications Centre will:

1. Mobilise resources in accordance with pre-determined attendance.
2. Notify On-Site Co-ordination Team for Bellanaboy Bridge Gas Terminal. This team consists of a designated Controller of Operations and Media Liaison Officer.
3. Notify Rostered Senior Fire Officer.
4. Provide relevant information to responding units as soon as it becomes available including safety data on the chemicals involved in the incident if appropriate.
5. Notify Garda Communications Centre and provide details of the ETHANE message received.
6. Notify National Emergency Operations Centre (NEOC) and provide details of the ETHANE message received.

1.6 Initial Actions for VEPIIL and the PRA's Upon Activation of the Plan

- VEPIIL will sound a site wide evacuation siren which will alert personnel to muster. All personnel, other than Location Response Team members, will proceed to muster points as detailed in the VEPIIL Internal Emergency Response Plan.
- The On-site Control Room Building will act as the VEPIIL Emergency Response Centre for the BBGT Location Response Team (LRT).
- BBGT LRT will carry out immediate emergency response actions as detailed in the VEPIIL Internal Emergency Response Plan i.e. shut down the plant if required and blow down if necessary.
- It is anticipated the first Fire Service response vehicle will proceed onto the terminal, park at the rear of the Control Room and the Incident Commander will speak directly to the BBGT LRT Team Leader (Site Main Controller) who will provide an update of the situation.
- The On-site Co-ordination Point is the location from which the principal response agencies will control, direct and co-ordinate their organisations response to the emergency.

A representative (competent person) from VEPIIL will attend the Initial On-site Co-ordination Point to liaise with the On-site Co-ordination Group.

The Initial On-site Co-ordination Point is located at the designated Holding Area for the incident (Holding Area 1 or Holding Area 2).

- The Incident Commander will liaise with the responding agencies at the Initial On-site Co-ordination Point and request additional assistance to the scene as required.
- Responding Emergency Services will report to the appropriate rendezvous point (RVP 1 or RVP 2). Depending on the incident, vehicles will be directed to the incident site or holding area.
- VEPIIL and each principal response agency will implement their key actions as outlined in Section 2.

1.7 On-site Co-ordination Group

The On-site Co-ordination Group will be convened when this plan is activated. The group will be represented with the following personnel from An Garda Síochána, the Health Service Executive and Mayo County Council:

- Controller of Operations
- Media Liaison Officer
- Other support personnel as deemed necessary

A representative (competent person) from VEPIIL will attend the Initial On-site Co-ordination Point to liaise with the On-site Co-ordination Group.

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1.8 Standing Down the Plan

The decision to stand down this plan will be taken by the Controller of Operations of the lead principal response agency in consultation with the Controllers of Operations of the other PRA's and the VEPIIL Site Main Controller.

Where a Major Emergency has been declared under the Framework for Major Emergency Management, the decision to stand down the incident will be taken by the On-site Co-ordinator in consultation with the Controllers of Operations of the other PRA's and the Local Co-ordination Group.

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Section 2 KEY ACTIONS

In the event of activation of this plan, VEPIIL and each principal response agency will implement key actions as outlined below.

2.1 Key Actions of VEPIIL

Key Actions of Site Main Controller

1. Ensure the activation section (Section 1.3) of this plan is complete.
2. Initiate the VEPIIL Emergency Response Management System (Doc. No. COR-14-SH-0029).
3. Establish communications with the principal response agencies.
4. Meet the Controllers of Operations of the PRA's at the Initial On-site Co-ordination Point.
5. Ensure local residents have been informed via the Vermilion Notification System.
6. Inform the relevant regulators as required.

Key Actions of Control Room Operator (CRO)

1. Contact the required emergency services and confirm to the Site Main Controller that activation of this plan has been completed.
2. Ensure the designated rendezvous point is identified and communicated to the emergency services (Refer to Section 0 of plan).

2.2 Key Actions of An Garda Síochána

1. Consider need to declare a Major Emergency under the Framework for Major Emergency Management and activate the Garda Divisional Major Emergency Plan if deemed necessary.
2. Establish communications with the other principal response agencies and VEPIIL. Meet the Controllers of Operations of the other PRA's at the Initial On-site Co-ordination Point.
3. Obtain information regarding the incident from VEPIIL and the other principal response agencies as appropriate.
4. Establish and maintain traffic cordon points as detailed in the Site Arrangements for Responding Emergency Services at the Bellanaboy Bridge Gas Terminal Document. Refer to Appendix 3.
5. Establish and maintain the traffic management system within the Inner Traffic Cordon and Outer Traffic Cordon. Refer to Appendix 3.

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6. Ensure free passage of emergency response vehicles into and out of the establishment. Prevent congestion at and around the site.
7. Identify and request additional required resources.
8. Advise on evacuation, where applicable.
9. Inform the public, as necessary, on the advice of the principal response agencies, of actual or potential dangers arising from the incident and of traffic management cordons and restrictions.
10. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other PRA's and the Communications Advisor from VEPIL.
11. Establish and maintain communications with the other principal response agencies at the designated holding area.
12. Manage a traffic parking system for emergency response vehicles at the designated holding area (aligned to the designated rendezvous point).
13. Make appropriate arrangements to convey key personnel to the site in a safe and expeditious manner.
14. Preserve the site or incident location, if deemed necessary.
15. Provide technical and forensic examination assistance.
16. Brief the Coroner for North Mayo in the event of any fatality and undertake the requisite investigation on their behalf including the preservation and collection of relevant evidence.
17. Maintain essential Garda services during the incident.

2.3 Key Actions of the Health Service Executive

Key Actions of National Ambulance Service (NAS)

1. Consider need to declare a Major Emergency under the Framework for Major Emergency Management and activate the HSE Major Emergency Plan if deemed necessary.
2. Execute NAS Standing Orders as appropriate for the site including consideration of the health and safety of NAS responders and any decontamination requirements.
3. Report to the National Emergency Operations Centre (NEOC) using (M)ETHANE and request activation of the Area Crisis Management Team (ACMT) as appropriate.
4. Establish communications with the other principal response agencies and VEPIL. Meet the Controllers of Operations of the other PRA's at the Initial On-site Co-ordination Point.
5. Obtain information regarding the incident and safety data information on the chemicals involved.

6. In consultation with other Controllers of Operation, agree locations for decontamination, casualty clearing station, ambulance loading point, body holding area and helicopter landing point, as appropriate.
7. Provide regular updates to NEOC and Area Crisis Management Team (if activated).
8. Request activation of additional HSE resources through the ACMT as appropriate.

Key Actions of Area Crisis Management Team

1. Support on-site response.
2. Consider and provide for the overall HSE response and recovery phases of the incident.
3. Mobilise HSE services as appropriate and designate a representative to the Local Co-ordination Centre if activated.
4. Organise specialist advice as appropriate – Public Health and / or Environmental Health.
5. Consider business continuity for all HSE services.
6. Arrange for appropriate spokesperson (e.g. Public Health) in consultation with response as appropriate.

2.4 Key Actions of Mayo County Council

1. Consider need to declare a Major Emergency under the Framework for Major Emergency Management and activate the Mayo County Council Major Emergency Plan if deemed necessary.
2. Establish communications with the other principal response agencies and VEPIIL. Meet the Controllers of Operations of the other PRA's at the Initial On-site Co-ordination Point.
3. Obtain information regarding the incident from VEPIIL and the other principal response agencies as appropriate.
4. Mobilise resources and equipment as deemed necessary.
5. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other principal response agencies and the Communications Advisor from VEPIIL.
6. Seek advice and assistance where necessary from relevant sections within Mayo County Council; inter alia, the Environment Section.
7. Establish liaison with relevant external agencies, where applicable.
8. Continue to operate and maintain normal infrastructure in the county.
9. Provide appropriate support, assistance and advice to VEPIIL and to those affected.

2.5 Key Actions of Mayo Fire Service

1. Consider need to declare a Major Emergency under the Framework for Major Emergency Management and activate the Mayo County Council Major Emergency Plan if deemed necessary.
2. The first Fire Service vehicle in attendance will proceed to the Administration Building via the main gate and meet with security staff from the terminal. Depending on the situation, the Incident Commander may proceed to the rear of the Control Room Building.

Other responding vehicles will report to the designated rendezvous point. At the rendezvous point, resources will be directed to the site or holding area as required.
3. Establish communications with the other principal response agencies and VEPIIL at the Initial Incident Control Point.
4. The Incident Commander will obtain information from VEPIIL regarding the incident and request safety data on the chemicals involved in the incident.
5. The Incident Commander will conduct a dynamic risk assessment for the incident and determine what resources are initially required.
6. Establish a danger area and confirm cordons.
7. Advise on evacuation, where applicable.
8. Identify and request additional required resources.
9. Identify potential contamination by fire run-off water.
10. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other principal response agencies and the Communications Advisor from VEPIIL.
11. Establish liaison with relevant external agencies, where applicable.

Section 3 SITE DETAILS

3.1 Location of Bellanaboy Bridge Gas Terminal

The Bellanaboy Bridge Gas Terminal is part of a larger asset which includes Vermilion E&P Ireland Limited Corrib Gas Onshore Pipeline, Landfall Valve Installation, Offshore Pipeline and Subsea Facilities.

Refer to Appendix 1, Drawings 1 and 2, showing the location of the site.

Figure 3.1 shows the location of the site, key access routes and Rendezvous Points.*.

- * Note RVP 3 is not associated with the terminal emergency response arrangements. It is associated with Land Valve Installation and onshore pipeline emergencies only.

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Figure 3.1 Location of the BBGT and Key Emergency Response Locations

3.2 Layout of the BBGT

A general layout of the Bellanaboy Bridge Gas Terminal footprint area ('establishment') is presented in Figure 3.2.

The defined 'establishment' under the COMAH Regulations, as applied to the Bellanaboy Bridge Gas Terminal, is the double contained security fencing around the terminal footprint and not VEPIIL landholding which extends around the terminal site.

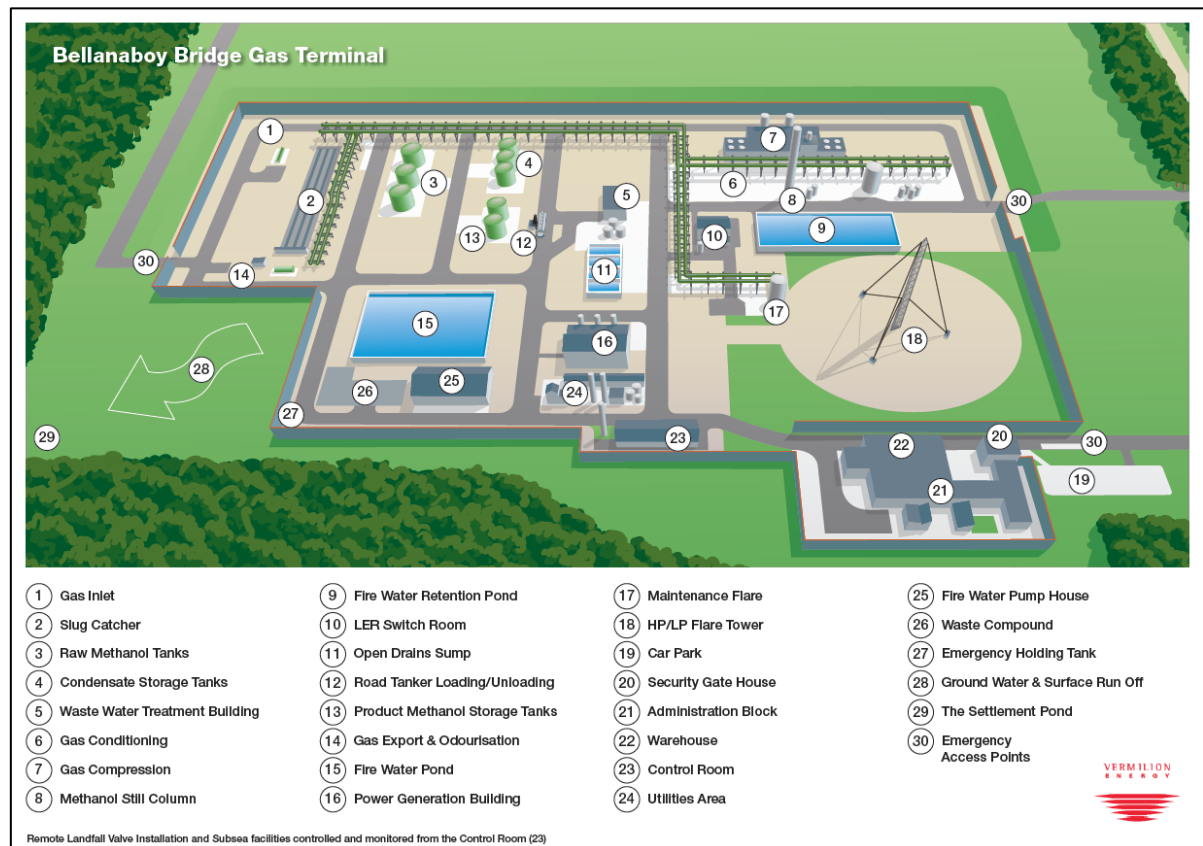


Figure 3.2 Overview of the Terminal

3.3 Site Occupancy

The site is permanently manned and there is 24hr security staff on-site.

Approximate site occupancy is as follows:

Normal operations day shift	90 persons
Normal weeknights	18 persons
Normal weekdays	24 persons

Temporary contractors and visitors may also be in attendance at the site.

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3.4 Site Access and Egress

Access and egress to the establishment is via the main gate on the R314.

Alternative access is via the side gate from the L5244. This access route will only be used if the main entrance is blocked.

Refer to Appendix 1, Drawing 2, showing the location of the access gates.

3.5 Public Information Zone

Public Information Zone (PIZ) is the name given by the Central Competent Authority to the area referred to in Regulation 25(4) of the COMAH Regulations. This area was previously called 'Specified Area' in the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 74 of 2006.

The Public Information Zone is essentially the area within which persons are liable to be affected by a major accident occurring at the establishment and constitutes the outer planning zone (1×10^{-7} contour).

For this establishment, the Public Information Zone is contained almost entirely within the VEPIIL landholding and does not include the receptors referred to in Regulation 25(5). Accordingly, the operator has no obligation under Regulation 25(4) of the COMAH Regulations.

Refer to Figure 3.3 and Appendix 1, Drawing 4, showing the Public Information Zone.



Figure 3.3 Public Information Zone Based on Risk Contour of 1×10^{-7}

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3.6 Explanation of the Setting of the Public Information Zone

The Health and Safety Authority's (HSA's) land use planning guidance document, 'Policy and Approach of the Health and Safety Authority to COMAH Risk-based Land-use Planning (Including Detailed Implementation by Sector), 19 March 2010' describes the approach which the authority uses when determining the Public Information Zone.

The Public Information Zone is based on the outer fatality risk zone of 1×10^{-7} per year. The 1×10^{-7} contour represents the total annual risk from the hazardous activities on the terminal and all reasonably foreseeable potential incidents involving ignited releases of flammable material for a typical householder who spends 10% of the time outdoors and 90% of the time indoors.

The Public Information Zone for the establishment was determined using Quantitative Risk Assessment (QRA).

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Section 4 DANGEROUS SUBSTANCES

4.1 Dangerous Substances and their Location

This plan has been prepared to respond to a major accident or an uncontrolled event which could be reasonably expected to lead to a major accident involving certain dangerous substances present on the Bellanaboy Bridge Gas Terminal.

The COMAH dangerous substances associated with the major accident hazard scenarios are listed in Table 4.1. (Refer to Section 5 for details of the major accident hazard scenarios.)

Refer to Appendix 2 for details and inventory of all dangerous substances present on the terminal.

4.2 Harmful Health Effects of the Dangerous Substances

Refer to Appendix 2 for information on the harmful health effects and toxicological characteristics associated with the dangerous substances.

4.3 Harmful Environmental Effects of the Dangerous Substances

















Refer to Appendix 2 for information on the harmful environmental effects associated with the dangerous substances.

4.4 Safety Data Information

VEPIL will provide all necessary information to the emergency services concerning any hazardous substance involved in an incident upon arrival on-site (i.e. Safety Data Sheets, Chemical Risk Assessments (Control of Substances Hazardous to Health (COSHH) Assessments)).

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Table 4.1 COMAH Dangerous Substances Associated with the Major Accident Hazard Scenarios

Substance	Hazard Classification	CAS Number / IUPAC	Physical Form	Maximum Quantity (tonne)	Roof Type	Fire Fighting System
Raw Methanol (40% aqueous methanol) Tanks T-4001 A/B/C	  	67-56-1	Liquid	3391	Fixed roof with internal floating roof	Automatic local foam monitors / internal foam pourers / external water deluge for cooling. Activated locally or remotely from Control Room.
Product Methanol T-4002 A/B	  	67-56-1	Liquid	787	Fixed roof with internal floating roof	Automatic local foam monitors / internal foam pourers / external water deluge for cooling. Activated locally or remotely from Control Room.
Stabilised Condensate (petroleum product) Tanks T-3001 A/B	   	64741-47-5	Liquid	2082	Fixed roof with internal floating roof	Automatic local foam monitors / internal foam pourers / external water deluge for cooling. Activated locally or remotely from Control Room.
Hydrocarbon Gas (Natural Gas)	 	68410-63-9	Gas	48	In process stream	Automatic local water monitors for cooling / local fire water hydrants for additional cooling.
Unstabilised Condensate	   	68919-39-1	Liquid	48	In process stream	Automatic local water monitors for cooling / local fire water hydrants for additional cooling / portable foam units.

CLP Hazard Classification Pictograms

Flammable



Gas under pressure



Acute toxicity



Hazard to health / ozone layer



Serious health hazard



Hazardous to environment

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4.5 Behaviour of Dangerous Substances During Major Accidents

The dangerous substances present on-site can be grouped according to their behaviour in a major accident:

- Gases that burn
- Liquids that burn
- Substances that disperse and pollute

The behaviour of each of the categories of substance in a major accident is outlined in the following sections.

4.5.1 Gases that Burn

The Corrib hydrocarbon gas contained in the offshore and onshore pipeline, at the LVI and in the process equipment at the terminal belongs to this category of substance. Unstabilised condensate in these facilities will, if released, generate hydrocarbon vapour which behaves in a similar way to flammable gases.

The flammable gas will burn if it encounters an ignition source and if there is sufficient air or oxygen present to support combustion.

Immediate ignition of a gas release at pressure results in a jet fire giving rise to radiated heat. The jet fire shape is determined by the momentum of the release, which results in a narrow, long flame of high intensity. If the flame impinges on equipment such as, vessels, structures or pipework, it can cause significant damage and possibly escalation of the event. The thermal radiation effects of a jet fire can cause injuries or fatalities to personnel and damage to equipment located some distance away from the flame.

Catastrophic vessel and large pipeline failures result in fuel rich gas clouds which, if ignited, will burn as a fireball, with a diameter and duration dependent on the amount of gas involved but typically tens of metres in diameter and several seconds in duration for large releases. Injuries, fatalities and damage can occur due to engulfment in the fire or exposure to high levels of thermal radiation outside the fireball.

If ignition is delayed, released gas will disperse downwind and mix with air. Well mixed gas-air clouds burn more efficiently and quickly, resulting in a flash fire rather than a fireball. Typically the ignition is at the edge of the gas cloud and the cloud quickly burns back towards the leak source where, if the release is still ongoing, the fire continues as a jet fire (for momentum-driven gas releases) or pool fire (for gas clouds which have evaporated from a liquid release). The flash fire itself is relatively short lived, and the consequences are dominated by fatality to people engulfed in the fire itself as opposed to thermal radiation effects outside the fire envelope.

Vapour Cloud Explosions (VCE's) can result when well mixed gas clouds are ignited in the presence of confinement or congestion. The confinement encourages the flame front to accelerate as it passes through the flammable mixture, creating intense heat and overpressure by compressing the air in front of the flame. The level of overpressure generated depends on the volume of the gas and air mixture, the properties of the flammable material and the degree of confinement, congestion and venting. Overpressure can result in injuries, fatalities or equipment damage, either directly or via generation of projectiles.

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4.5.2 Liquids that Burn

Unstabilised condensate, stabilised condensate, product and raw methanol belong to this category of dangerous substance. These materials are stored on site as liquids, either in atmospheric or pressurised conditions.

Catastrophic process vessel failures can result in rapid evaporation of a large quantity of the released liquid. If ignition occurs, the 'flashed' vapour and entrained liquid droplets form a fireball as described above.

High momentum liquid releases (e.g. through a small orifice) may involve atomisation of liquid droplets which, if ignited, could result in a jet fire as described above. Heavier droplets will rain out into a pool.

Catastrophic failure of an atmospheric storage tank can result in a release of liquid with high momentum, resulting in conditions in which some liquid could overtop the bund wall. In most cases however, liquid releases are of relatively low momentum, and a pool will develop over a horizontal surface, contained by topography, bunds, etc. Ignition will result in a pool fire. Pool fires can be well ventilated (fuel-controlled) if burning in the open air, but may become under-ventilated (ventilation-controlled) if located in a confined area (e.g. within a tank).

Pool fires tend to have lower flame temperatures and produce lower levels of thermal radiation than jet fires, and therefore, have a lower potential for causing rapid structural failure. A pool fire can, however, produce large volumes of smoke, with under-ventilated pool fires producing more smoke than well ventilated pool fires. Methanol pool fires are an exception; methanol evaporates very rapidly and the short lived pool fires burn cleanly, almost invisibly, with very little smoke.

Boiling Liquid Expanding Vapour Explosions (BLEVE's) occur when substances which are normally gas at atmospheric pressure and temperature are stored as a liquid under pressure, and their storage vessel is subjected to prolonged flame impingement. The internal vessel temperature rises, liquid evaporates, and the internal pressure rises. Eventually the liquid level may fall below the location of flame impingement on the outside of the vessel, at which point the internal surface of the vessel wall is no longer in contact with liquid, acting as a heat sink, the wall temperature increases rapidly, the wall weakens and fails due to the force of the internal pressure. The contents of the vessel suddenly experience a massive reduction in pressure (to atmospheric conditions) and so a significant proportion of the remaining liquid flashes instantaneously to vapour and the gas expands violently, carrying any remaining liquid as droplets and rupturing the vessel.

The physical effects from a BLEVE can include overpressure caused by the rapid gas expansion and sections of the ruptured vessel forming missiles which can travel several hundred metres. However, if the material in the vessel is flammable, the most significant consequences are those of flame impingement / engulfment and thermal radiation from the resulting fireball.

The unstabilised condensate would be expected to rapidly evaporate should a condensate-containing pressure vessel (e.g. slugcatcher) be subjected to prolonged flame impingement. Failure of the process vessels resulting in a fireball is therefore included in the terminal's QRA. These failures are included as a sensitivity to the QRA base case, as the mitigation measures at the terminal would be expected to reduce the likelihood of this event to a low frequency, and the time between the initial failure which caused the flame impingement, and the subsequent process vessel failure due to the flame impingement, would give people sufficient time to escape to a place of safety.

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4.5.3 Substances that Disperse and Pollute

Unignited Substances that Present a Risk to Human Health

Unignited gases and liquids can cause harm to people who are exposed to them, for example by contact with skin, inhalation or ingestion. Owing to the low toxic content of the well fluid, unignited releases of the hydrocarbon gas or liquid condensate pose little or no toxic hazard to people.

Another hazard from unignited releases of hydrocarbon gas is asphyxiation. This also applies to unignited release of liquid condensate, but specifically for the hydrocarbon vapour that could evolve from such releases. Asphyxiation from unignited releases of hydrocarbon gas or liquid condensate is unlikely. The hydrocarbon gas / vapours would be lighter than air and thus more buoyant, rising into the atmosphere.

For unignited releases at the terminal, safety measures are in place (e.g. isolation, blowdown, shutdown) which will limit the amount of hydrocarbon released and thus the size and concentration of any cloud that may form. Also, the communications systems (e.g. alarms, radios) will be used to direct people away from releases and any clouds that could form.

The potential harm to people, both immediate and delayed, from the dangerous substances held at the terminal are listed in Appendix 2. Such substances are stored and handled in strict accordance with the instructions on their Safety Data Sheet (SDS), personnel receive appropriate training and wear the necessary Personal Protective Equipment (PPE).

Nitrogen and carbon dioxide (CO₂) are both used at the terminal. Nitrogen is used for purging and blanketing and CO₂ is used for fire suppression in the turbine enclosures. Both of these gases have the potential to cause asphyxiation if personnel are exposed to them in confined spaces, or are overcome / injured and unable to evacuate from the area.

Substances with Dangerous to the Environment Classification

A number of the substances present at the terminal are classified as dangerous to the environment; however, they are mostly present in small quantities which reduces the risk of a significant impact occurring if released to the environment.

The potentially harmful substances handled in the largest quantities are hydrocarbon gas, diesel, methanol, stabilised and unstabilised condensate and odorant. These substances can be dangerous to the environment should they reach waterways or wildlife, either because they are directly toxic or because they can interfere with the oxygen content of the water for example.

Equipment and systems are designed firstly, to prevent accidental spills, and then to contain any such releases in bunds and drainage systems, thereby preventing them from extending off-site.

The potential impact of the dangerous substances on the environment has been fully examined in more detail in the risk assessments contained in the Safety Report for the establishment. The conclusion of these risk assessments states that for each of the identified major environmental hazards, there is no potential for significant environmental impact scenarios due to the measures in place at the site.

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Section 5 MAJOR ACCIDENT HAZARDS

5.1 Major Accident Hazard Scenarios

A Major Accident Hazard Scenario is an undesirable event or sequence of events that could lead to a major accident.

There are no off-site or domino effects associated with any of the major hazard scenarios associated with the terminal.

The major accident hazard scenarios are as follows:

1. Unignited or ignited hydrocarbon gas release from process equipment or pipework. (e.g. import pipeline within the terminal boundary, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system, compression).
Ignited release could result in cloud / jet fire or explosion.
2. Unignited or ignited release of unstabilised condensate from process vessels or pipework. (e.g. slugcatcher, separation, compressor suction and coolers).
Ignited releases could result in a pool fire, jet fire or explosion. Includes BLEVE of vessels containing condensate under pressure, arising from the knock-on effects of an ignited hydrocarbon gas release from process equipment or pipework.
3. Unignited or ignited stabilised condensate release from storage tanks T-3001A, T-3001B and T-3002 (off spec condensate) or associated pipework.
Ignited release would lead to a pool fire.
4. Unignited or ignited stabilised condensate release during road tanker loading e.g. as a result of operator/driver error, connection or hose failure or overfilling.
Ignited release would lead to a pool fire.
5. Fire following loss of containment of methanol from process equipment, pipework or storage at the terminal. Includes releases from methanol regeneration, injection, On-shore Terminal Termination Unit, storage tanks or road tanker delivery.

Refer to Table 5.1 for the key emergency response actions associated with the major accident hazard scenarios and refer to Table 5.2 for the potential escalation effects which should be considered.

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Table 5.1 Key Emergency Response Actions Associated with the Major Accident Hazard Scenarios

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
1. Unignited hydrocarbon gas release from process equipment or pipework. Includes releases from import pipeline within the establishment, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system and compressors.	68410-63-9	- Gas release to atmosphere	Fire fighting approach: Primary mitigation is isolation and blowdown of system. Natural cloud dispersion. Restriction of access to affected area. Restrictions on potential ignition sources.
2. Ignited hydrocarbon gas release at the terminal from process equipment or pipework. Includes releases from import pipeline, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system and compressors.	68410-63-9	- Cloud / jet fire or explosion	Fire fighting approach: Primary mitigation is isolation and blowdown of system. Natural cloud dispersion. Restriction of access to affected area. Restrictions on potential ignition sources. Supplementary fire fighting measures which may be considered: <ul style="list-style-type: none"> • Automatic, remote or local activation of fire water monitors for cooling of adjacent equipment if required. • Additional cooling of process equipment via the use of local fire hydrants if required.
3. Unignited release of unstabilised condensate from process vessels or pipework. Includes releases from slugcatcher, separation, compressor suction drums and coolers.	68919-39-1	- Vapour cloud - Spill	Vapour cloud: Natural cloud dispersion. Restriction of access to affected area. Restrictions on potential ignition sources. Spill containment: Spill containment is via on-site drainage system. See catchment area drawing (Appendix 1, Drawing 14) for drainage arrangements and key actions for CRO to take to isolate drains.
4. Ignited release of unstabilised condensate from the terminal's process vessels or pipework. Includes releases from slugcatcher, separation, compressor suction drums and coolers.	68919-39-1	- Pool fire, jet fire	Fire fighting approach: Ignited jet fires would be permitted to burn out, primary mitigation is isolation and blowdown of system. Automatic, remote or local activation of foam monitors where provided for pool fire suppression. Supplementary fire fighting measures which may be considered: <ul style="list-style-type: none"> • Automatic, remote or local activation of fire water monitors for cooling of adjacent equipment if required. • Additional cooling of process equipment via use of local fire hydrants if required.

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
5. Unignited stabilised condensate release from storage tanks T-3001A, T-3001B and T-3002 (offspec condensate) or associated pipework.	64741-47-5	- Vapour cloud - Spill	Vapour cloud: Natural cloud dispersion. Restriction of access to affected area. Restrictions on potential ignition sources. Spill containment: Spill containment is via on-site drainage system. See catchment area drawing (Appendix 1, Drawing 14) for drainage arrangements and key actions for CRO to take to isolate drains.
6. Ignited stabilised condensate release from storage tanks T-3001A, T-3001B and T-3002 (offspec condensate) or associated pipework.	64741-47-5	- Ignited release would lead to a pool fire	Fire fighting approach: Internal tank fire suppression. Each tank has internal foam pourers; these have surfaces pourers which dispense aqueous film-forming alcohol resistant foam onto the internal floating roof. Supplementary fire fighting measures which may be considered for internal tank fires: <ul style="list-style-type: none"> Each tank has manual local or manual remote operated water deluge systems for cooling purposes. If necessary additional cooling via use of fire water from local fire hydrants. Pool fire suppression. Manual remote activation from the Control Room or local manual activation of external foam monitors for bund pool fire suppression. Spill containment: Spill containment is via bunding and on-site drainage system. See catchment area drawing (Appendix 1, Drawing 14) for drainage arrangements and key actions for CRO to take to isolate drains.
7. Unignited stabilised condensate release during road tanker loading e.g. as a result of operator/driver error, connection or hose failure, or overfilling.	64741-47-5	- Spill	Spill containment: Spill containment is via on-site drainage system. See catchment area drawing (Appendix 1, Drawing 14) for drainage arrangements and key actions for CRO to take to isolate drains.
8. Ignited stabilised condensate release during road tanker loading.	64741-47-5	- Ignited release would lead to a pool fire	Fire fighting approach: Tanker loading / unloading bay has automatic or manual remote operated water deluge system for cooling purposes. Portable foam monitors for pool fire suppression. Supplementary fire fighting measures which may be considered: <ul style="list-style-type: none"> Each methanol and condensate storage tank has manual local or manual remote operated water deluge systems for cooling purposes if necessary.

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
9. Fire following loss of containment of methanol from process equipment, pipework or storage at the terminal. Includes releases from methanol regeneration, injection, On-shore Terminal Termination Unit, storage tanks, road tanker delivery.	67-56-1	- Pool fires	<p>Fire fighting approach: Methanol burns clear. Approach determined by assessment of circuit television (CCTV) monitoring and infrared flame detection that alarms in the CCR.</p> <p><u>Methanol storage tanks:</u> Internal tank fire suppression. Each tank has internal foam pourers; these have surfaces pourers which dispense aqueous film-forming alcohol resistant foam onto the internal floating roof. Supplementary fire fighting measures which may be considered for internal tank fires:</p> <ul style="list-style-type: none"> • Each tank has manual local or manual remote operated water deluge systems for cooling purposes. • If necessary additional cooling via use of fire water from local fire hydrants. • Pool fire suppression. • Manual remote activation from the Control Room or local manual activation of external foam monitors for bund pool fire suppression. <p><u>For methanol off-loading:</u> Tanker loading / unloading bay has automatic or manual remote operated water deluge system for cooling purposes. Portable foam monitors for pool fire suppression. Supplementary fire fighting measures which may be considered:</p> <ul style="list-style-type: none"> • Each methanol and condensate storage tank has manual local or manual remote operated water deluge systems for cooling purposes if necessary. <p><u>Process areas:</u> Ignited jet fires would be permitted to burn out, primary mitigation is isolation and blowdown of system. Supplementary fire fighting measures which may be considered:</p> <ul style="list-style-type: none"> • Automatic, remote or local activation of fire water monitors for cooling of adjacent equipment if required. • Additional cooling of process equipment via use of local fire hydrants if required. <p>Spill containment: Spill containment is via bunding arrangements and on-site drainage system. See catchment area drawing (Appendix 1, Drawing 14) for drainage arrangements and key actions for CRO to take to isolate drains.</p>

Table 5.2 Potential for Fire / Explosion Escalation

N/A denotes the potential for escalation is not a credible risk due to the distances involved.

Fire Originating From:	Potential for Escalation to:					
	Gas Inlet / Export Line	Slugcatcher	Process Area	Tank Farm	Onshore Terminal Termination Unit (OTTU) / Hydraulic Power Unit (HPU)	LER 1 / Administration Building / Control Room
Gas receiving / slugcatcher	Unburied pipeline protected by jet fire resistant Passive Fire Protection (J30 PFP). ESDV 1001, 1002, blast protected to 0.5barg and jet fire resistant for 15 minutes minimum. ESDV 1013 is fire rated.	25-75mm jet fire from pig receiver or slugcatcher could impinge on slugcatcher trestles, this may result in self-escalation only, also noting that there are multiple trestles in place. Basis of safety is gas/fire detection and ESD followed by blowdown. PFP is purely an asset protection consideration. Overpressures not expected to cause escalation due to blast protection of BDVs and ESDVs.	n/a	50-75 mm leak from slug catcher/ blowdown valve platform could reach raw methanol tanks but escalation not possible assuming successful isolation. Overpressures capable of rupturing tanks not expected.	Onshore Terminal Termination Unit protected from jet fire by 3m high reinforced concrete wall with cantilevered roof. Significant overpressure not anticipated. The Hydraulic Power Unit is protected on the south and east sides of the skid by a wall to prevent flame impingement.	n/a
Process area	n/a	n/a	50mm jet fire could reach adjacent equipment and piperacking, extending from the gas processing side into the methanol distillation column process area. However, isolation due to fire or gas detection and blowdown will reduce pressure relatively quickly, reducing jet fire momentum, intensity and duration. Jet fire from inlet separation could reach the adjacent piperack/valve platform and ESDV 1006 (which is protected for 10 minutes jet fire impingement). Asset protection issue only.	Acceptable risk of escalation from jet fire due to separation distance (93m). Tolerable risk of escalation from overpressure.	OTTU is also a significant distance from the process area.	Blast overpressure generated in the process area will impact this area. LER 1 built to withstand 300mbarg. Control room built to withstand 250mbarg. The Administration Building is not blast rated but the QRA indicates that the frequency with which it may be impacted by overpressure from a VCE is less than 1×10^{-4} per year. Failure of LER 1 building due to overpressures exceeding blast rating will not impact on ESD system – ESDVs are fail closed. BDVs are fail last position and pneumatically operated with back up air reservoirs blast rated to 500mbarg (via Darchem jacket and firebox).

Bellanaboy Bridge Gas Terminal External Emergency Plan

Fire Originating From:	Potential for Escalation to:					
	Gas Inlet / Export Line	Slugcatcher	Process Area	Tank Farm	Onshore Terminal Termination Unit (OTTU) / Hydraulic Power Unit (HPU)	LER 1 / Administration Building / Control Room
Sales gas metering and export	Unburied export pipeline protected by PFP. ESDV 2015, 2016 blast protected to 0.5barg and jet fire resistant for 15 minutes minimum.	25 -75mm jet fire could impinge on slugcatcher trestles. Basis of safety is gas/fire detection and ESD followed by blowdown. ESD and blowdown prioritises the slugcatcher due to larger inventory (i.e. blowdown Zone 6 over Zone 1). No significant escalation issue. Impingement on slugcatcher trestles is an asset protection issue.	n/a	75 mm jet fire will not reach tank farm.	n/a	n/a
Condensate and methanol bulk storage and loading / unloading	n/a	Pool fire escalation to slugcatcher negligible risk.	Pool fire escalation to process area negligible risk.	-	n/a	n/a
Waste Water Treatment Plant (WWTP)	n/a	n/a	n/a	n/a	n/a	n/a
Administration / control building and laboratory	n/a	n/a	n/a	n/a	n/a	n/a
Firewater pump house and pond	n/a	n/a	n/a	n/a	n/a	n/a
Power generation and utilities	n/a	n/a	n/a	n/a	n/a	n/a
Flare and LER1	n/a	n/a	n/a	n/a	n/a	n/a
Piperack	n/a	n/a	Escalation not expected - ESDVs are fail closed; site blowdown philosophy.	n/a	n/a	n/a

5.2 Fire Fighting Philosophy

The design intent across the facility in areas other than 'bulk storage / tanker loading' is that fire detection, emergency shutdown and blowdown constitutes the protection mechanism. Fire water monitors are present in the process areas for equipment cooling purposes and not fighting a fire associated with process equipment per se.

There are five types of fires associated with the terminal:

1. Hydrocarbon Gas related
2. Bulk liquid storage tank fires
3. Building fires
4. Forest fires
5. Other minor fires

5.2.1 Hydrocarbon Gas Related Fires

For any fires associated with the terminal process, the automatic systems will activate initiating a shutdown of the system and blowdown of the hydrocarbon inventory on the terminal if required.

The application of water to the affected area will be for cooling purposes only and will be from the terminal automatic fire fighting systems. The requirement for any additional cooling will be assessed on a case by case basis and will be carried out using the terminal fire water ring main fire hydrants. Hydrocarbon gas related fires will be permitted to burn out until the source of fuel has dissipated.

5.2.2 Bulk Liquid Storage Tank Fires

For storage tank fires in the Condensate and Methanol tanks, the internal foam deluge systems will activate automatically. External cooling with water will also be activated either locally or remotely from the Control Room. For any pool fires in the tank bunding, the application of additional fire fighting foam will be from the automatic foam monitors located adjacent to these tanks. Overflow from the tanks is diverted to the Fire Water Retention Pond to prevent migration over the bund wall into groundwater.

For all other bulk storage tanks, the fire fighting approach will be on a case by case basis e.g. diesel tanks.

5.2.3 Building Fires

Fires in any of the buildings on-site will be fought in the normal approach by the Fire Service.

5.2.4 Forest Fires

VEPIL have an internal protocol for dealing with forest fires both inside and outside the VEPIL landholding. The approach is to monitor the potential for the migration of embers onto the terminal site, erect fire screens using the on-site fire hydrants and shutdown and blowdown if necessary.

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5.2.5 Other Minor Fires

Other minor fires (e.g. fires in the waste compound) will be dealt with in the normal manner by the Fire Service, however, the on-site BBGT Location Response Team may deal with this type of fires in addition to calling for Fire Service support.

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Section 6 MANAGEMENT OF EMERGENCY RESPONSE

6.1 Command, Control and Co-ordination of Response

The phrases command, control and co-ordination are used to describe the hierarchy of relationships and to establish decision-making arrangements.

Command Meaning the process of directing the operations of all or part of a particular service (or group of services), by giving direct orders.

Control Meaning the process of influencing the activity of a service or group of services, by setting tasks, objectives or targets, but without the authority to give direct orders.

Co-ordinate Meaning to bring the different elements of a complex activity or organisation into an efficient relationship through a negotiated process. In an emergency context this may include the mandate / authority to make certain decisions in pre-defined areas, where a normal consensual approach does not appear to meet the needs of an emergency situation.

Co-operate Meaning to work together towards the same end.

Collaborate Meaning to work jointly on an activity.

6.2 Command and Control Arrangements on Location

Command and control arrangements require that:

- Each PRA exercises command over its own resources in accordance with its normal command structure, command systems and arrangements.
- Each PRA should exercise control over:
 - Its own services operating at the site and
 - Other services (other than the other PRA's) which it mobilises to the site.
- The lead agency should exercise control over the services provided by VEPIIL personnel.

6.3 Co-ordination Arrangements

In international best practice, the co-ordination of the efforts of all services is recognised as a vital element in successful response to emergencies. One of the key objectives is to set out arrangements and facilities for effective co-ordination of the individual response efforts of the principal response agencies to emergencies, so that the combined result is greater than the sum of their individual efforts.

The key to achieving this objective is to recognise co-ordination of response as a specific function in emergency management.

6.4 The Lead Agency Concept

A lead agency should be identified and assigned the responsibility and mandate for the co-ordination function. One of the three principal response agencies will be designated as the lead agency for any emergency and thereby assume responsibility for leading co-ordination. In general, therefore, while the responsibility for co-ordination may be shared, in any given situation responsibility for leading co-operation belongs specifically to one of the PRA's.

The mechanisms for determining and designating the lead agency in any situation are detailed in the in the Framework for Major Emergency Management.

6.5 Vermilion E&P Ireland Limited Emergency Response Management

VEPIL has dedicated emergency response structures to manage response and recovery of defined levels of emergencies.

6.5.1 VEPIL Emergency Response Structures

Figure 6.1 details the VEPIL Emergency Response Structure for the terminal. Further details on the roles and responsibilities of the Emergency Response Teams are detailed in the VEPIL Internal Emergency Response Plan.

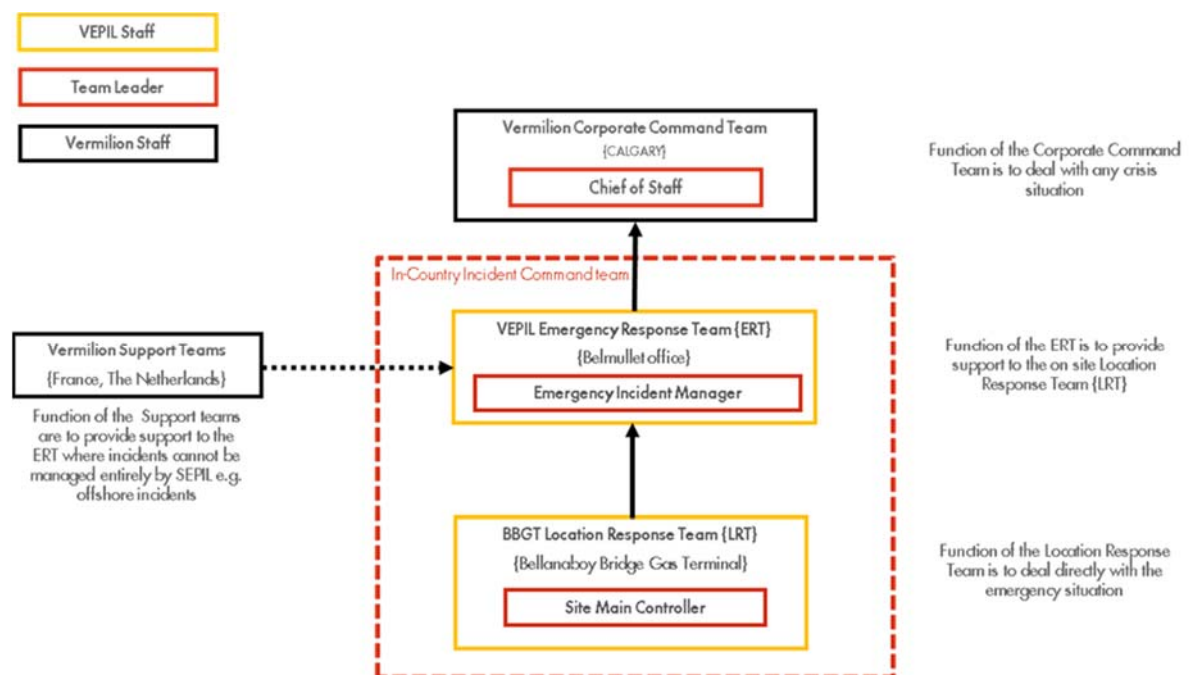


Figure 6.1 VEPIL Emergency Response Structure

6.5.2 BBGT Emergency Response Team Structure

In the event of an emergency situation occurring on the BBGT, the Location Response Team will be mobilised to deal with the situation.

The Location Response Team Leader is called the 'Site Main Controller'. The Site Main Controller will contact the Emergency Incident Manager (Emergency Response Team Leader), who will decide whether or not to mobilise the Emergency Response Team.

The Site Main Controller will not wait to contact the Emergency Incident Manager prior to activating this plan if they believe the plan should be activated.

Figure 6.2 details BBGT Location Response Team structure.

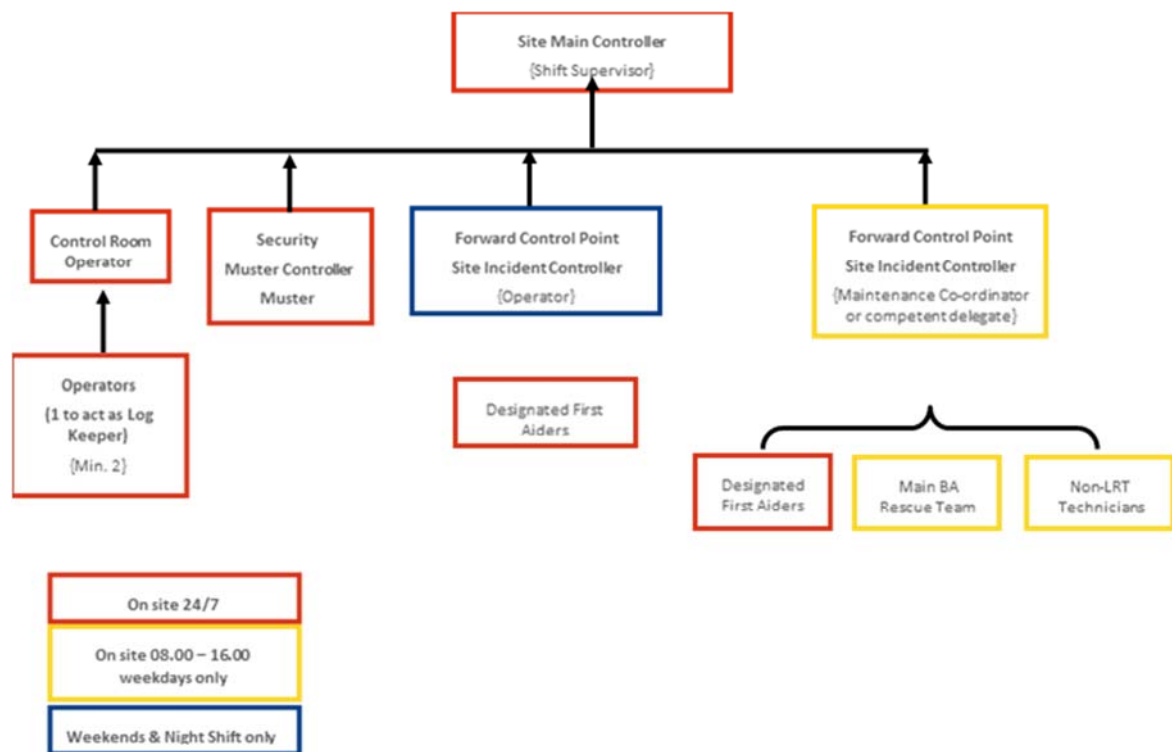


Figure 6.2 BBGT Location Response Team Structure

6.5.3 VEPIIL Emergency Response Levels

The following are VEPIIL's defined levels of emergency and the corresponding actions taken during each level of emergency:

<p>Level I Emergency</p> <p>Location Emergency</p>	<ul style="list-style-type: none"> • A non routine situation needing immediate attention (e.g. medical, minor fires and minor oil spills). • Emergencies will be reported to the Site Main Controller (SMC). • A Location Response Team (LRT) will be formed to support the SMC. • The SMC will inform the Emergency Incident Manager (EIM). • If the situation escalates, the EIM will mobilise the Emergency Response Team (ERT). Level II.
<p>Level II Emergency</p> <p>Local / Asset Emergency</p>	<ul style="list-style-type: none"> • A local incident that requires immediate attention that is not under control. • If an Asset Emergency is called, the EIM is responsible for managing the situation. • The EIM will mobilise the ERT and inform the Corporate Command Team Lead (Corporate Commander), depending on the situation. • If an ERT is assembled, they will provide support to the LRT. • The EIM shall follow initial verbal notification to the Corporate Commander by a written incident summary for all events.
<p>Level III Emergency</p> <p>Local / Asset Crisis</p>	<ul style="list-style-type: none"> • An incident occurs at a local business level and is not likely to have an immediate country or broader business implications. • If an asset crisis is called, the Corporate Command Team will convene in Calgary, Canada and they will manage the situation. • The Corporate Command Team will support the affected asset and address broader and longer-term public, governmental, reputation and business implications, with executive responsibility for communication with local and national stakeholders. • The Corporate Command Team is responsible for considering and highlighting possible escalation triggers and ensuring the Country Managing Director and any other Vermilion businesses in the region are informed and regularly briefed on the situation. • The Corporate Command Team may also, in consultation with the County Managing Director, declare a Country Crisis based on potential impact reputation and cross business implications.

* This plan may be activated by VEPIL when a Level II or Level III emergency occurs.

Figure 6.3 details VEPIL's emergency response to the defined levels of emergency.

Bellanaboy Bridge Gas Terminal External Emergency Plan

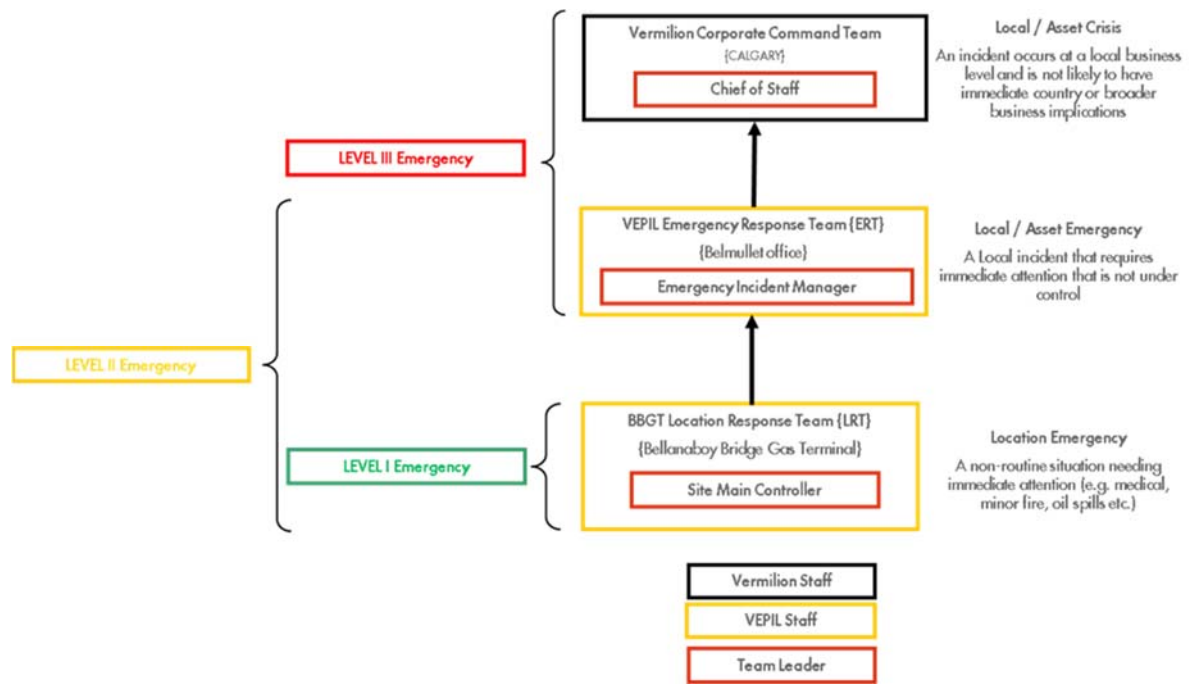


Figure 6.3 VEPIIL Emergency Response Levels

6.6 Communicating During an Emergency

During an emergency, the principal response agencies will use their standard means of telecommunications except where advised by VEPIIL that only intrinsically safe telecommunication devices should be used e.g. in the event of an un-ignited hydrocarbon release. In these instances, VEPIIL will provide intrinsically safe telecommunication devices, which are stored on the terminal.

Figure 6.4 details the various communication links between the principal response agencies and VEPIIL during an emergency.

Bellanaboy Bridge Gas Terminal External Emergency Plan

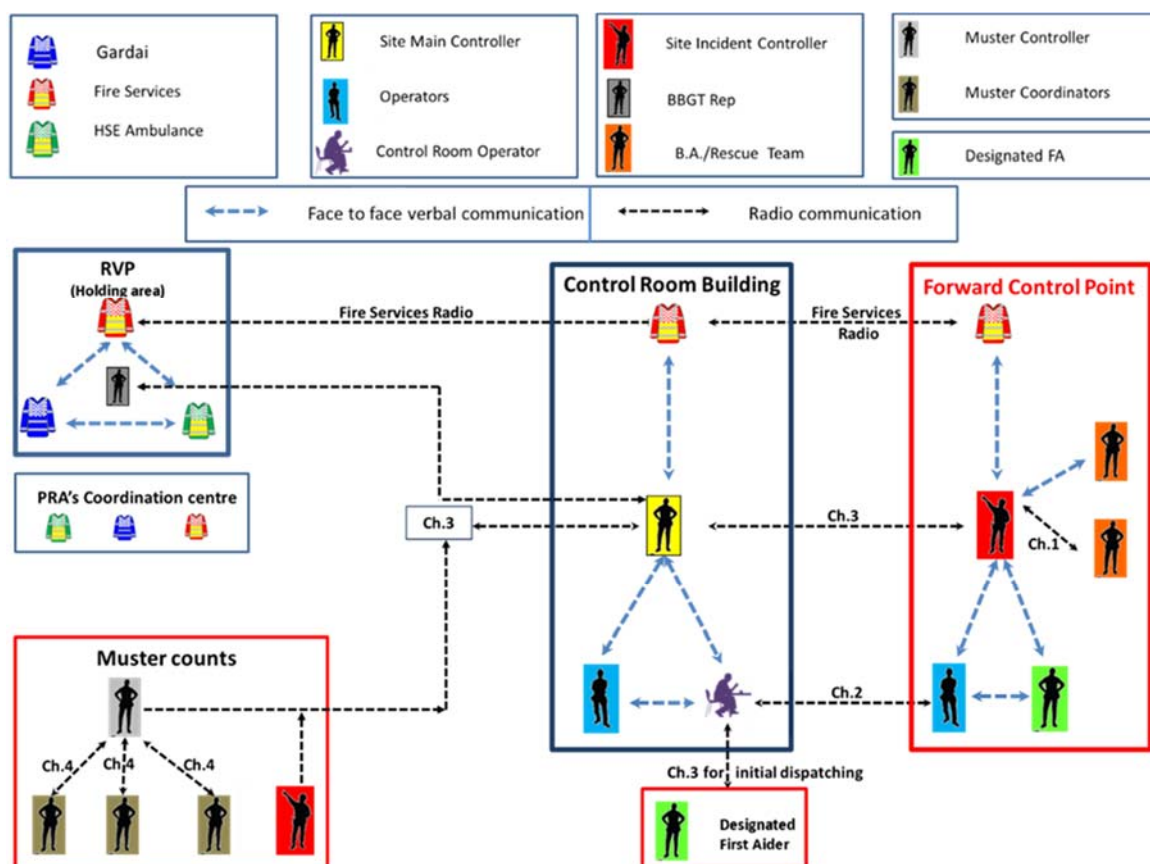


Figure 6.4 Emergency Response Communications

Section 7 SITE MANAGEMENT DETAILS

7.1 Site Management

Figure 7.1 depicts idealised site management arrangements which apply for all emergencies involving principal response agency response. It details the requirements for effective scene management, i.e. establishing a danger area, rendezvous points, holding areas and cordons, etc.

Where, for operational reasons, this layout cannot be achieved, the principles should be applied as far as is reasonably practicable.

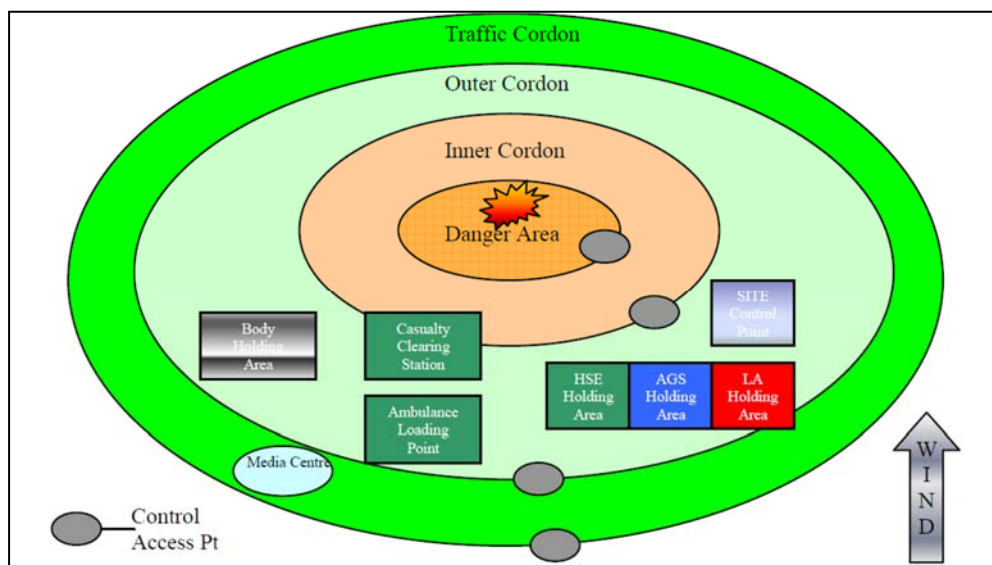


Figure 7.1 Site Management Diagram

7.2 Danger Area

A danger area will be declared and will reflect the type and seriousness of the incident. The danger area may be reduced when an incident is under control or increased if there is possible escalation of the incident. The danger area may also be adjusted in a particular direction to allow for weather / wind effects.

The danger area will be determined by the On-Site Co-ordinator advised by the Rostered Senior Fire Officer (RSFO) / Fire Service Incident Commander.

Where it is necessary that emergency services continue to operate in a danger area, they should apply their normal incident and safety management arrangements, and relevant officers should continue to exercise command / control over their own personnel working in the area.

7.3 Rendezvous Point (RVP)

The Rendezvous Point is the location to which all resources responding to the emergency are directed in the first instance (apart from the first Fire Service response vehicle which will proceed onto the terminal and park at the rear of the Control Room).

There are two Rendezvous Points associated with an emergency event at the BBGT. (A third Rendezvous Point, 'RVP 3', is associated with the Corrib Gas Onshore Pipeline and is outside the scope of this plan.)

In the event of an emergency, the VEPIL Control Room Operator, when contacting the emergency services, will direct the responding agency to RVP 1 or RVP 2. The Rendezvous Point will be selected based on the incident details and other factors, including wind direction. For any incident, only one Rendezvous Point will be used.

An Garda Síochána organise the Rendezvous Point. Other agencies may have a Marshalling Officer present to direct responding vehicles to the scene.

Refer to Appendix 1, Drawing 15, showing the locations of the Rendezvous Points associated with the terminal.

Rendezvous Point 1

RVP 1 is located at the lay-by adjacent to the junction of R314 and L1204 (Haulage Road). It is located 1.3 km west of the main gate and approximately 6.1km east of Barnatra.



Rendezvous Point 1 (RVP 1)

Rendezvous Point 2

RVP 2 is located at the junction of Belmullet to Ballycastle Road R314 and the Glenamoy to Glengad Road (L1202).



Rendezvous Point 2 (RVP 2)

7.4 Holding Area

The Holding Area is the location that resources which are not immediately required at site will wait until requested.

The Holding Area will be under the control of An Garda Síochána. Other agencies may have a Marshalling Officer present to direct responding vehicles into action.

The location of the Holding Area is determined by the choice of the designated Rendezvous Point.

Holding Area 1

Holding Area 1 corresponds to RVP 1 and is adjacent to the junction of the R314 and L1204 (Haulage Route), both on the L1204 and R314, as deemed necessary.

Holding Area 2

Holding Area 2 corresponds to RVP 2 and is adjacent to the junction of the R314 and L1202, both on the L1202 and the R314, as deemed necessary.

7.5 Defined Approach Routes

Emergency services responding to an incident at the BBGT must follow the defined approach routes to the designated Rendezvous Point / Holding Area. The predetermined routes have been selected to facilitate a safe, efficient and co-ordinated response.

Refer to Appendix 3 for the Site Arrangements for Responding Emergency Services Document (Appendix 2) for approach route maps.

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7.6 Initial On-site Co-ordination Point

The On-site Co-ordination Point is the location from which the On-site Co-ordination Group will control, direct and co-ordinate their organisations response to the emergency. A representative from VEPIIL will attend the Initial On-site Co-ordination Point to liaise with the On-site Co-ordination Group.

The Initial On-site Co-ordination Point is located at the designated Holding Area for the incident.

The On-site Co-ordination Point may be repositioned depending on the location, type and duration of incident.

7.7 Site Security Arrangements

Security will issue 1no. response pack to each PRA at the Security Gatehouse. Each pack contains an emergency services checklist, intrinsically safe mobile phone, intrinsically safe radio, emergency response contact details for VEPIIL personnel, a map of the main process area, a map with key locations and a map containing location of emergency equipment.

Depending on the emergency scenario, non-intrinsically safe equipment may have to be submitted to security.

7.8 Site Evacuation Arrangements

On activation of this plan, VEPIIL will initiate evacuation procedures.

A site wide evacuation siren will sound which will alert personnel to muster. All personnel, other than Location Response Team members, will proceed to muster points as detailed in the VEPIIL Internal Emergency Response Plan.

The site will be closed to all vehicles and personnel, other than the emergency services, or others as authorised by VEPIIL Site Main Controller and the On-site Co-ordinator.

Security staff and the muster controller will endeavor to identify and report any missing persons.

Where it is deemed necessary to remove all non-essential personnel from the terminal, VEPIIL will manage departure and organise transport to a suitable reception facility.

Refer to Appendix 1 for Drawing 5 showing muster assembly points.

Refer to Appendix 1 for Drawing 6 showing the routes from the muster assembly points to the site boundary.

7.9 Inner Cordon

The inner cordon is defined by the double-fence line around the main terminal site. The cordon will be secured by security staff from the terminal acting under the direction of the lead agency. Persons working inside this area should have appropriate Personnel Protective Equipment (PPE).

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The Inner Cordon Access Point is located at the BBGT Administration Building. An alternative access point is also available on BOTH the east and west side of the terminal double fence line. The cordon access point should be under the control of the lead agency. This point will also be manned by security staff from the terminal.

Refer to Appendix 1, Drawing 16, showing the location of the Inner Cordon Access Points.

7.10 Outer Cordon

The outer cordon seals off an extensive area around the site. The area between the Inner cordon and outer cordon is used by the principal response agencies to provide support to personnel within the inner cordon.

The outer cordon is the triangle of roads immediately around the terminal; the Belmullet to Ballycastle Road (R314), the Glenamoy to Glengad Road (L1202) and the Leenamore Road (L5244).

Outer cordon access points are controlled by An Garda Síochána.

Refer to Appendix 1, Drawing 17, 18 and 21 showing the location of the outer cordon points (An Garda Síochána manning points).

7.11 Traffic Cordons

Traffic cordons have been identified to assist in the control of emergency services vehicles and private motor vehicles in the event of an incident. The purpose of the traffic cordon is to ensure free passage of emergency response vehicles into and out of the site, to prevent unauthorised vehicles and to prevent congestion in the area. An Garda Síochána manage the traffic cordons.

The main traffic cordon is similar to the outer cordon. However, it also includes the Bangor to Bellanaboy Road (L1204) (previously the Haulage Route) which provides access onto the Belmullet to Bangor Road (R313). This cordon requires that the junction at the Marian Shrine on the Bangor to Belmullet Road (L1204 with the R313) be manned by An Garda Síochána.

An alternative traffic cordon, if required, can be arranged along the Ballycastle to Belmullet Road (R314) leading east from the site through Glenamoy into Ballina (junction with the N59). This cordon would require the management of the junction with the R315 at Ballycastle, as well as other locations on the R314 and N59.

Refer to Appendix 1, Drawing 19 and 20, showing the location of the Traffic Cordons.

7.12 Helicopter Landing Site

A landing site will be considered based on suitability and availability, following consultation between the National Aeromedical Co-ordination Centre, the helicopter crew and the ground ambulance.

7.13 Site Arrangements for Responding Emergency Services

The Site Arrangements for Responding Emergency Services Document assists the emergency services respond to an incident at the BBGT when this plan is activated. The document outlines the particular site management arrangements, proposed Traffic Cordons and route plans.

Refer to Appendix 3 for the Site Arrangements for Responding Emergency Services Document.

7.14 On-Site Co-ordination Centre

If a Major Emergency is declared under the Framework for Major Emergency Management, the On-Site Co-ordination Group may convene at the VEPIIL Office in Belmullet (Unit 4, Údarás na Gaeltachta, Belmullet) or at a suitable alternative location.

The Controller of Operations from An Garda Síochána, the Health Service Executive and Mayo County Council, their support staff and representatives from VEPIIL will attend. The On-Site Co-ordination Group will be chaired by the lead agency. Specialists and expert advisers may be consulted by the Co-ordination Group.

7.15 Meteorological Information

Meteorological information will be obtained from dialling the 24 hour Weatherdial number on 1550 123 852 (for Connaught). Location specific weather data is also available to the principal response agencies from the BBGT Control Room.

Section 8 INFORMATION TO THE PUBLIC

8.1 How the Public will be Informed of an Incident

The public will be informed of an incident via any of the following:

- Local radio broadcasts (National as appropriate)
- Television broadcasts
- Newspapers
- Dedicated emergency telephone number, when provided by VEPIL
- Local residents impacted may also be notified in person by VEPIL representatives

Residents in the area who have agreed to submit their contact phone numbers will receive notification informing them of the status of the situation from Vermilion via their notification system. The notification system is a computer based system designed to reach people quickly, at the same time and with a consistent message.

The following information will be released to residents during an incident:

1. Type of incident
2. Location and proximity of the incident to people in the vicinity
3. Actions to take
4. Actions being taken to correct the situation and time period anticipated
5. Contacts for additional information

The 'All Clear' will be notified to the public via the Vermilion Notification System or via any of the means stated above.

Section 9 WORKING WITH THE MEDIA

9.1 Media Management

Media management shall conform, in general, with the Framework for Major Emergency Management Document 'A Guide to Working with the Media' and the Western Region Emergency Services 'Inter-Agency Public Communication Plan'.

The activities of Media Liaison Officers (MLO's) from each principal response agency and the Communications Advisor from VEPIIL should be co-ordinated by the MLO of the lead agency.

Upon activation of this plan, the MLO from the lead agency or the Communications Advisor from VEPIIL will initiate contact with the MLO's / Communications Advisor from the other agencies. Initial communications may be via teleconference.

Prior to release to the media, all statements should be approved by the Controller of Operations of the lead agency.

An initial media holding statement should be issued by the On-site Co-ordination Group via the Garda Press Office as soon as practicable.

Public messages should aim to inform the public of the incident, reassure them as to their safety, advise that the incident is being attended and all measures necessary are being implemented and provide information in relation to traffic restrictions, etc.

Refer to Appendix 4 for a sample media holding statement.

9.2 Co-ordination with VEPIIL Media Strategy

The MLO of the lead agency should maintain liaison with the Communications Advisor from VEPIIL to ensure there is a co-ordinated response to the media, insofar as is appropriate, in the interest of public safety.

Media management by VEPIIL will be in accordance with the VEPIIL Emergency Response Management System (Doc. No. COR-14-SH-0029).

9.3 Establishing a Media Centre

If a media centre is necessary, media will be directed to a centre established at a suitable location.

Section 10 RECOVERY

10.1 VEPIIL Post Incident Procedures

VEPIL are committed to providing all reasonable support including human resources and materials for the protection, management and clean-up of the environment required as a result of a major accident / incident on-site.

In the event of a major accident / incident, it is likely that the services of contractors and external specialists will be required to assist with the recovery and reinstatement effort.

10.2 Contractors and External Specialists

A waste management contractor is retained by VEPIL to manage, handle and dispose of all waste on-site. This contractor also provides a 24hrs response service with expertise in hazardous waste management and supply of specialist equipment necessary to supplement the site's response arrangements.

Prior to handling or removing any contaminated absorbents or earth, detail of the hazardous properties of any contaminants shall be provided to the relevant contractor.

10.3 Organisations to be Contacted

In the event of an accident related to a Major Accident Hazard Scenario, the VEPIL Site Main Controller, or their delegate, shall, without delay, inform the Health and Safety Authority.

Where required, other relevant external agencies such as the Commission for Regulation of Utilities, the Environmental Protection Agency and the Health and Safety Authority shall be contacted.

10.4 Post Incident Action by An Garda Síochána

Following an incident, An Garda Síochána shall provide all necessary and appropriate information on the investigations as soon as practicable.

10.5 Post Incident Action by the Health Service Executive

Following an incident, the HSE shall, as applicable in the circumstances, assess the health needs of those affected and consider the scale of immediate and ongoing needs for assistance.

10.6 Post Incident Action by Mayo County Council

Following an incident, Mayo County Council shall, as applicable in the circumstances, provide appropriate support, assistance and advice to VEPIIL and to those affected. Mayo County Council may also assist in relevant remedial and restorative works.

10.7 Management of Recovery if a Major Emergency is Declared

Where a Major Emergency under the Framework for Major Emergency Management has been declared, the management of recovery shall conform, in general, with Section 6 of the Framework Document and the Major Emergency Plans of:

- An Garda Síochána, Mayo Division
- Health Service Executive West
- Mayo County Council

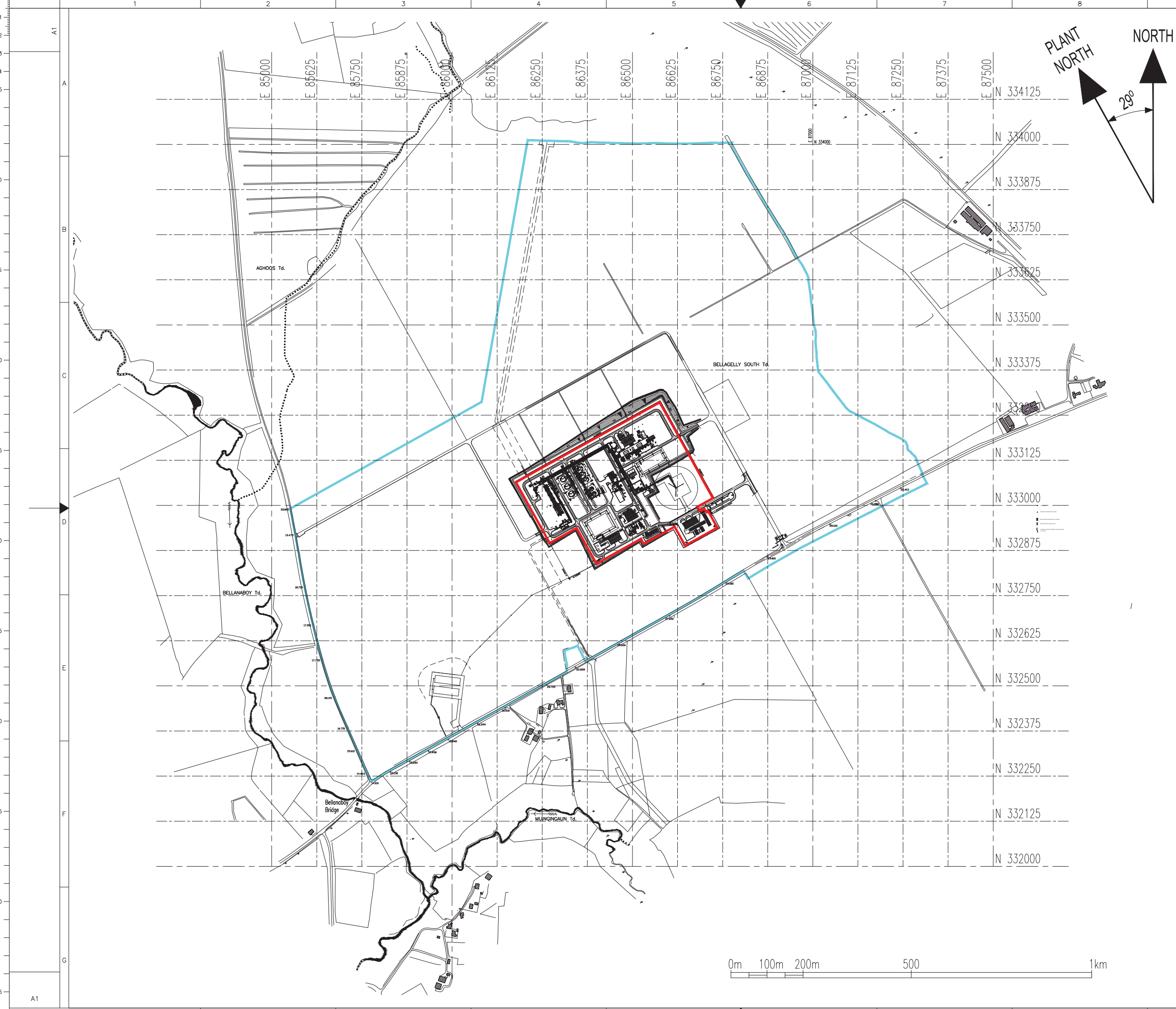
10.8 Post Incident Review

In the event that this plan is activated, each principal response agency and VEPIIL should carry out an operational debriefing of its involvement in the response and document this debriefing in a report.

A composite report, based on appropriate input from the PRA's and VEPIIL's internal reports should be compiled by the initial lead agency for submission, within a reasonable timescale, to the relevant Regional Steering Group. The report should include, inter alia, lessons learned from the incident and inter-agency co-ordination aspects to the response.

Appendix 1 DRAWINGS

Drawing 01:	Location of Establishment
Drawing 02:	Key Locations
Drawing 03:	Terminal Layout
Drawing 04:	Public Information Zone
Drawing 05:	Muster Assembly Route Points - Evacuation Route to Muster Locations
Drawing 06:	Muster Assembly Route Points - Assembly to Site Boundary
Drawing 07:	Emergency Response Equipment Locations
Drawing 08:	Firewater Ring Main Layout
Drawing 09:	Fire Hydrant Cabinets Locations
Drawing 10:	Foam Water Monitor Equipment Locations
Drawing 11:	Emergency Showers and Eye Wash Locations
Drawing 12:	Portable and Stationary Spill Kit Locations
Drawing 13:	Emergency Telephone Locations
Drawing 14:	Establishment Planned Catchments
Drawing 15:	Location of Rendezvous Points
Drawing 16:	Inner Cordon
Drawing 17:	RVP 1 Outer Cordon
Drawing 18:	RVP 2 Outer Cordon
Drawing 19:	RVP 1 and RVP 2 Traffic Cordons
Drawing 20:	RVP 1 Alternative Traffic Cordon
Drawing 21:	An Garda Síochána Access Control Points



NOTES:

1. SITE LOCATION MAP EXTRACTED FROM 6 INCH (1:10,560) ORDNANCE SURVEY MAPPING REFERENCE No.'s M0011, M0012, M0018 & M0019.
2. REPRODUCED FROM THE ORDNANCE SURVEY BY PERMISSION OF THE GOVERNMENT. LICENCE No. EN 0002803.

LEGEND:

- LANDHOLDING AS SUBMITTED IN THE TERMINAL PLANNING APPLICATIONS
- OUTLINE OF AREA DEFINED AS THE ESTABLISHMENT

2	26/02/14	EG	TERMINAL LAYOUT UPDATED	JOB
1	17/02/12	JOB	ISSUED TO HSA	JOB
Rev.	Date	By	Description	Chk'd By

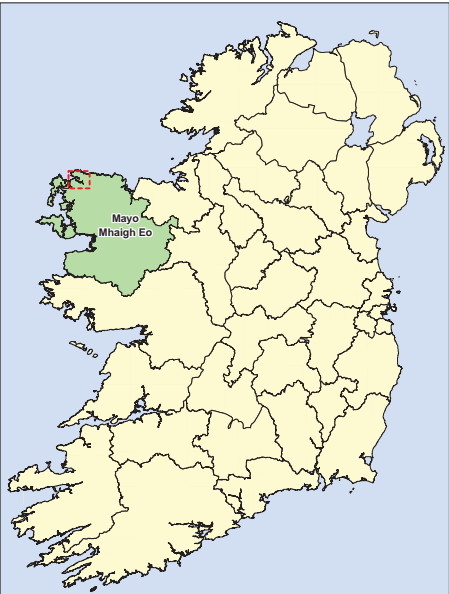
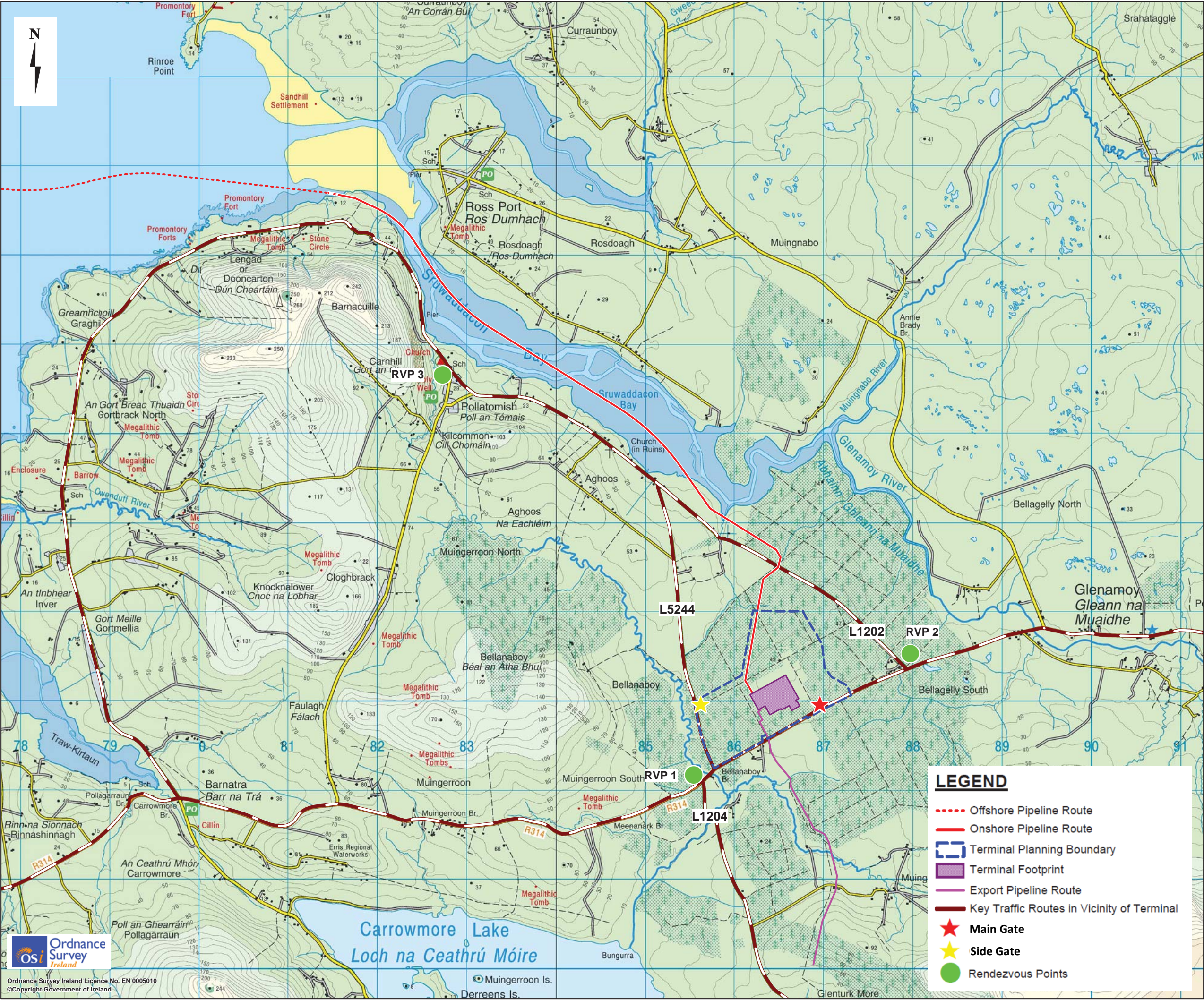
Bellanaboy Bridge Gas Terminal

Vermilion Exploration and Production Ireland Limited

Consulting Engineers DUBLIN CORK LIMERICK

Drawing Title:
SITE LOCATION PLAN

Arup Drawing No. C010_HSA	Sheet No. 1 of 1	Revision 2
Size: A1	Scale: (at full size) 1:5000	Drawn by: E. Guest
Checked: J. O'Brien	Approved: E. Lynch	Date: February 2012
Issue: HSA Drawing 2010	Shell Drawing No. COR-AR-HSA-001	



Vermilion Exploration and
Production Ireland Limited

Project
Bellanaboy Bridge Gas Terminal

Title

KEY LOCATIONS



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Issue Details

Drawn: N. O'Neill	Project No. COR25MDR0470
Checked: C. Butler	File Ref. COR25MDR0470M2684P02
Approved: C. Butler	Drawing No. Rev.
Scale: 1: 20,000 @ A1	M2684P02 P02
Date: 19/12/2013	

Notes
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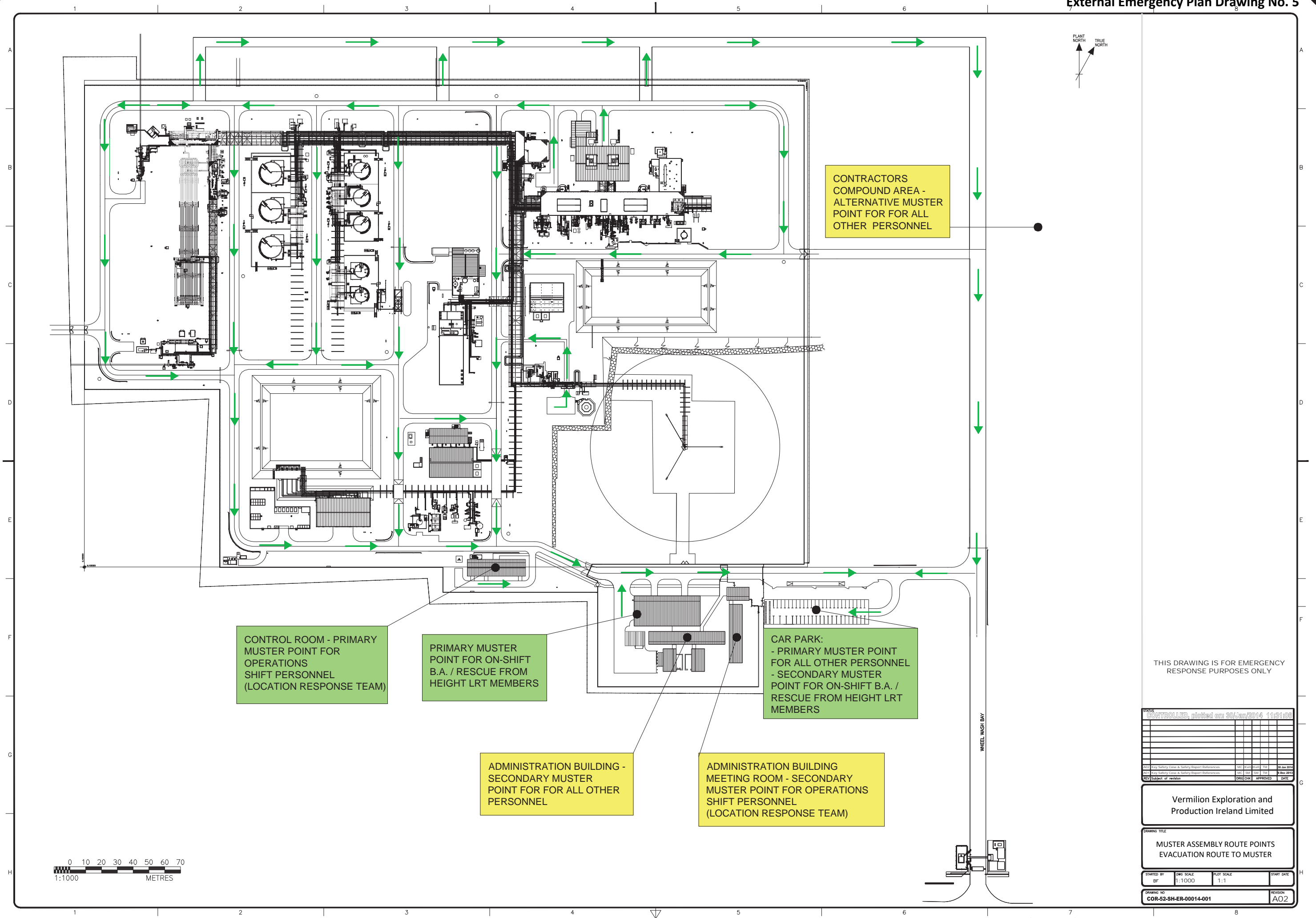
Bellanaboy Bridge Gas Terminal



- | | | | |
|----------------------------------|----------------------------------|------------------------|-----------------------------------|
| ① Gas Inlet | ⑨ Fire Water Retention Pond | ⑰ Maintenance Flare | ②⑤ Fire Water Pump House |
| ② Slug Catcher | ⑩ LER Switch Room | ⑱ HP/LP Flare Tower | ②⑥ Waste Compound |
| ③ Raw Methanol Tanks | ⑪ Open Drains Sump | ⑲ Car Park | ②⑦ Emergency Holding Tank |
| ④ Condensate Storage Tanks | ⑫ Road Tanker Loading/Unloading | ⑳ Security Gate House | ②⑧ Ground Water & Surface Run Off |
| ⑤ Waste Water Treatment Building | ⑬ Product Methanol Storage Tanks | ㉑ Administration Block | ②⑨ The Settlement Pond |
| ⑥ Gas Conditioning | ⑭ Gas Export & Odourisation | ㉒ Warehouse | ③① Emergency Access Points |
| ⑦ Gas Compression | ⑮ Fire Water Pond | ㉓ Control Room | |
| ⑧ Methanol Still Column | ⑯ Power Generation Building | ㉔ Utilities Area | |

Remote Landfall Valve Installation and Subsea facilities controlled and monitored from the Control Room (23)





THIS DRAWING IS FOR EMERGENCY RESPONSE PURPOSES ONLY

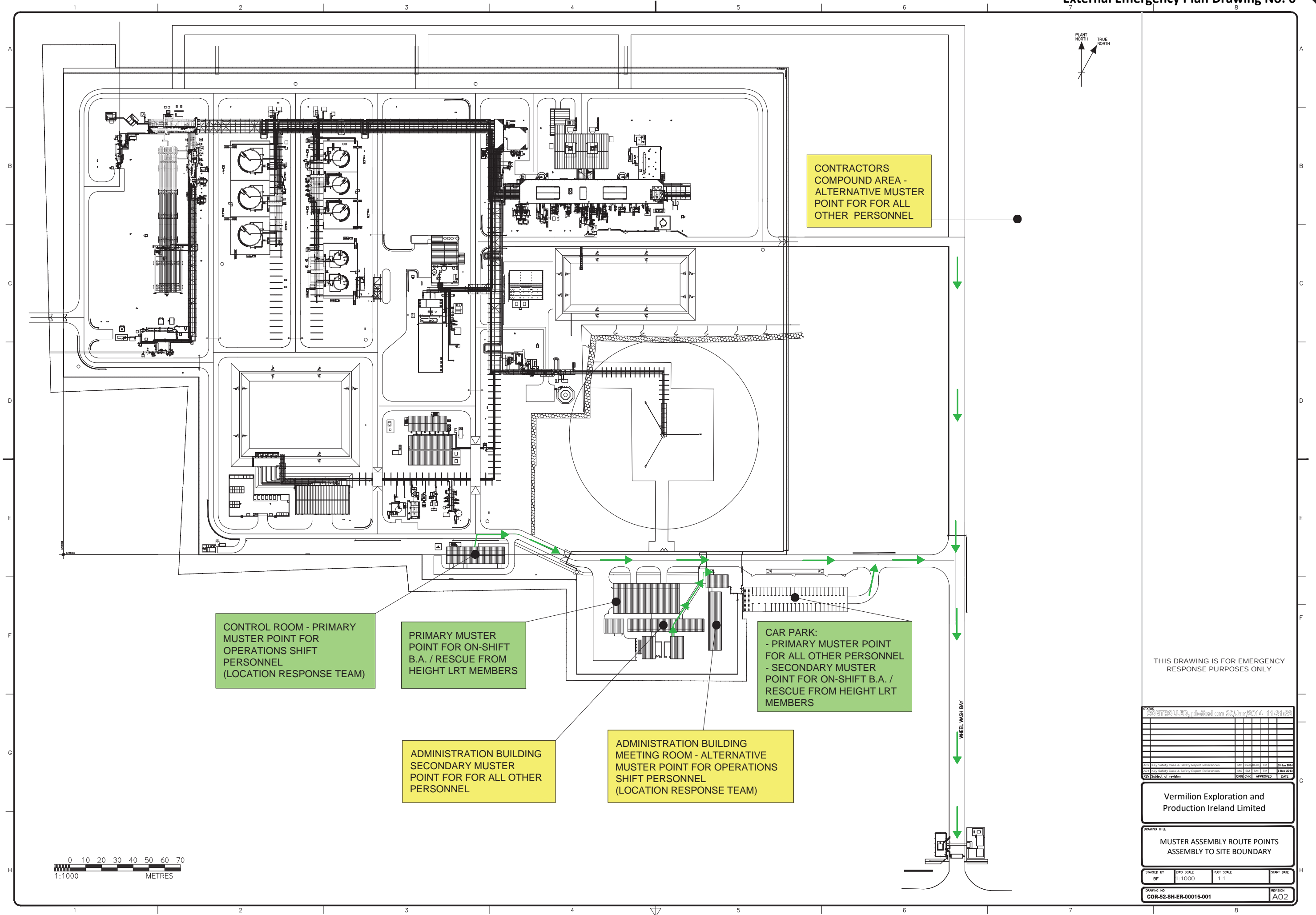
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2	Issue for review	29 Jan 2014	BF			
3	Issue for review	29 Jan 2014	BF			
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6	Issue for review	29 Jan 2014	BF			
7	Issue for review	29 Jan 2014	BF			
8	Issue for review	29 Jan 2014	BF			
9	Issue for review	29 Jan 2014	BF			
10	Issue for review	29 Jan 2014	BF			

Vermilion Exploration and Production Ireland Limited

MUSTER ASSEMBLY ROUTE POINTS
EVACUATION ROUTE TO MUSTER

STARTED BY	DWG SCALE	PLOT SCALE	START DATE
BF	1:1000	1:1	
DRAWING NO.	REVISION	DATE	BY
COR-52-SH-ER-00014-001	A02		



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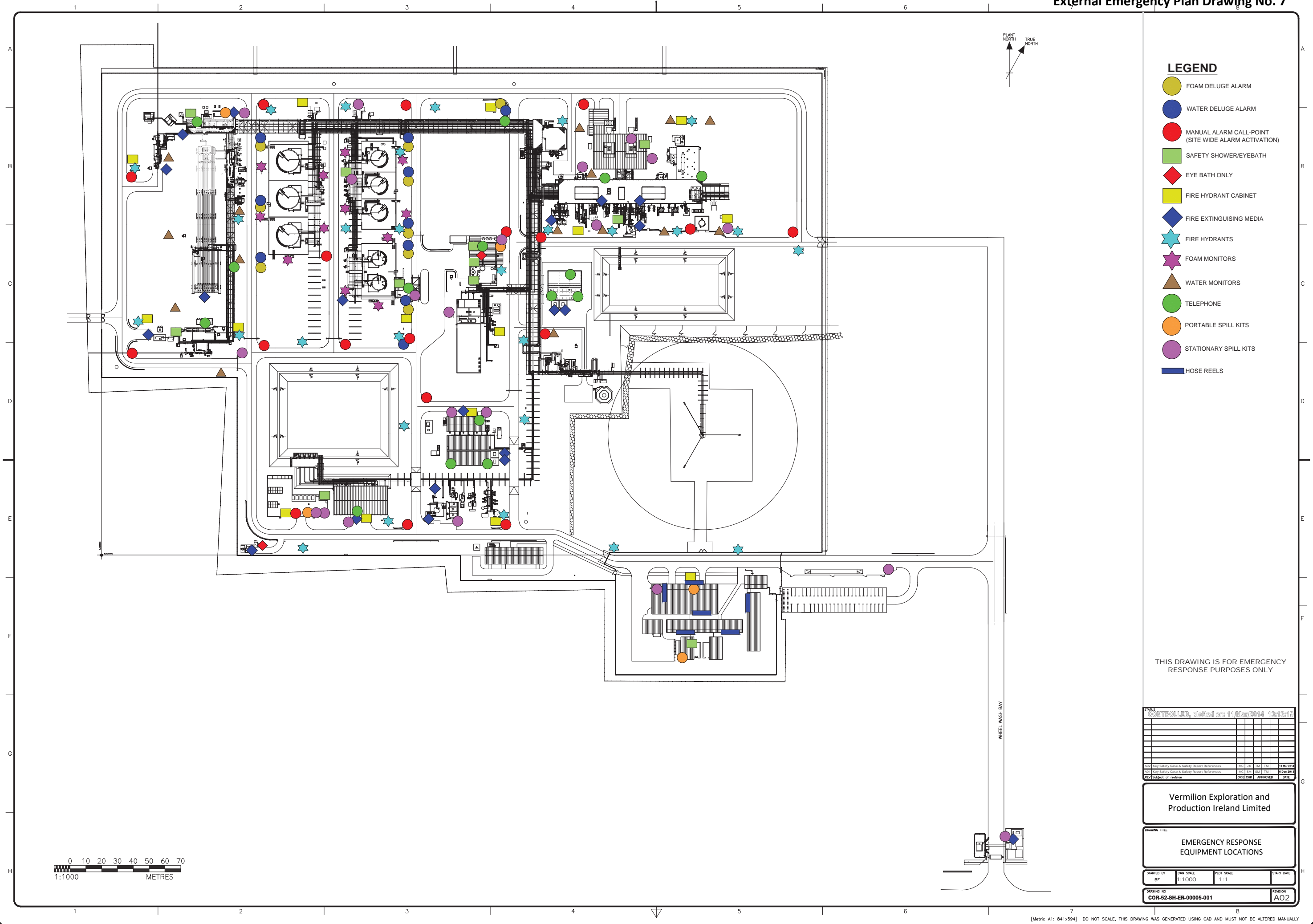
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Production Ireland Limited

DRAWING TITLE

MUSTER ASSEMBLY ROUTE POINTS
ASSEMBLY TO SITE BOUNDARY

STARTED BY BF	DWG SCALE 1:1000	PLOT SCALE 1:1	START DATE
DRAWING NO COR-52-SH-ER-00015-001			REVISION A02



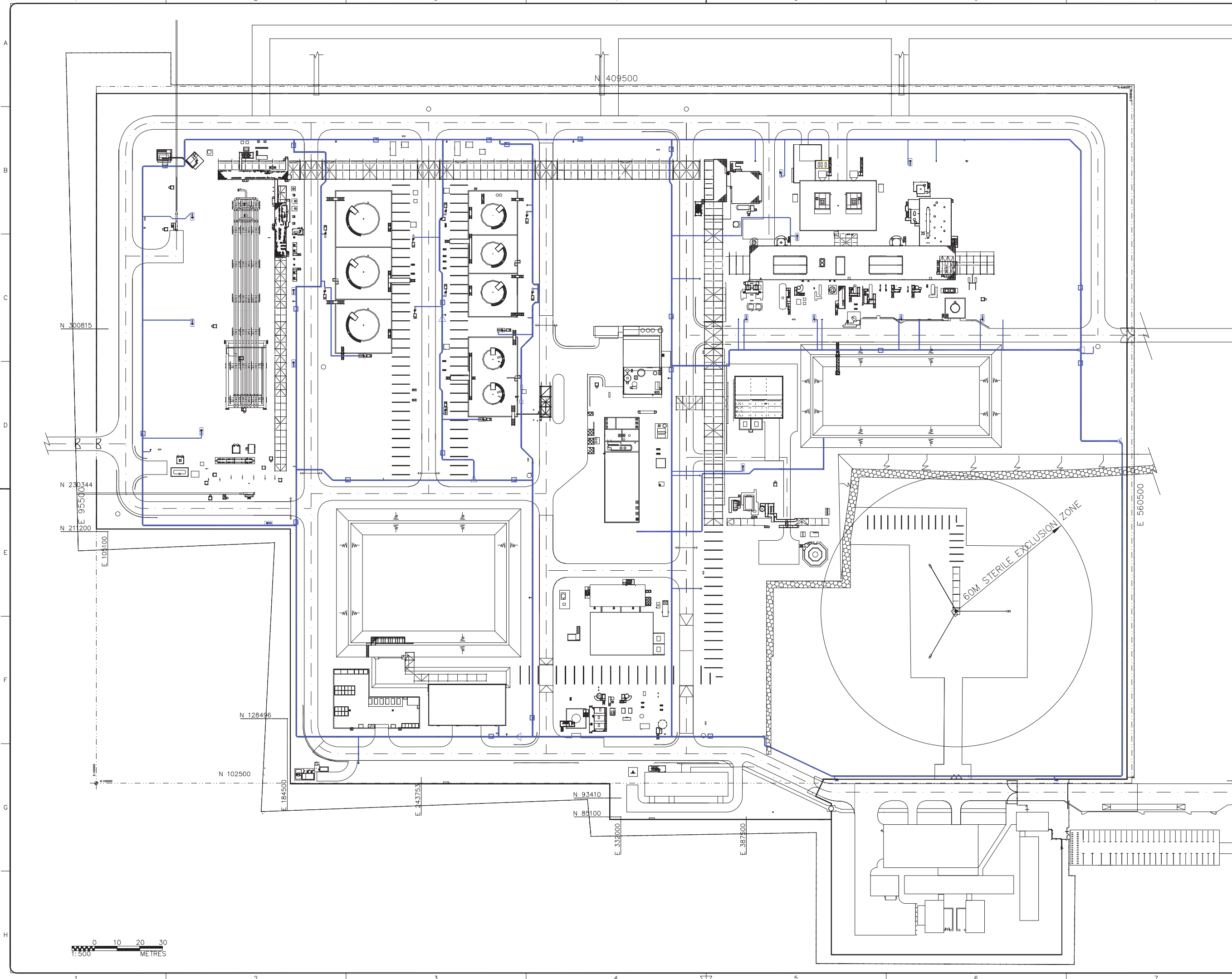
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RESPONSE PURPOSES ONLY

CONTROLLED, plotted on: 11/Mar/2014 13:13:10				

Vermilion Exploration and
Production Ireland Limited

EMERGENCY RESPONSE
EQUIPMENT LOCATIONS

STARTED BY BF	DWG SCALE 1:1000	PLOT SCALE 1:1	START DATE
DRAWING NO COR-52-SH-ER-00005-001	REVISION A02		



Reference drawings	
Drawing No.	Rev Drawing title

NOTES AND LEGEND

1. THIS DRAWING IS INDICATIVE ONLY

2. FIREWATER MAIN

STATUS

CONTROLLED, plotted on: 27/Jun/2014 15:56:01

ADP	Key Safety Case And Safety Report References	COC	Rev	CHK	APPROVED	DATE
REV	Subject of revision					

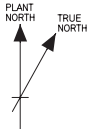
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DRAWING TITLE

FIREWATER RING MAIN LAYOUT

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DRAWING NO	REVISION
COR-52-SH-0129	A01



LEGEND

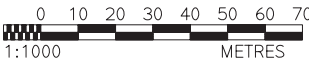
- FIRE HYDRANT CABINET
- FIRE HYDRANTS
- HOSE REELS

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RESPONSE PURPOSES ONLY

STATUS: CONTROLLED, plotted on: 10/Dec/2013 13:56:44									
AD1 Key Safety Case & Safety Report References				MC	SM	SM	TM	© Dec 2013	
REV	Subject of revision				CHK	CHK	APPROVED	DATE	

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DRAWING TITLE FIRE HYDRANT LOCATIONS			
STARTED BY BF	DWG SCALE 1:1000	PLOT SCALE 1:1	START DATE
DRAWING NO COR-52-SH-ER-00007-001			REVISION A01



LEGEND

- FOAM MONITORS
- WATER MONITORS

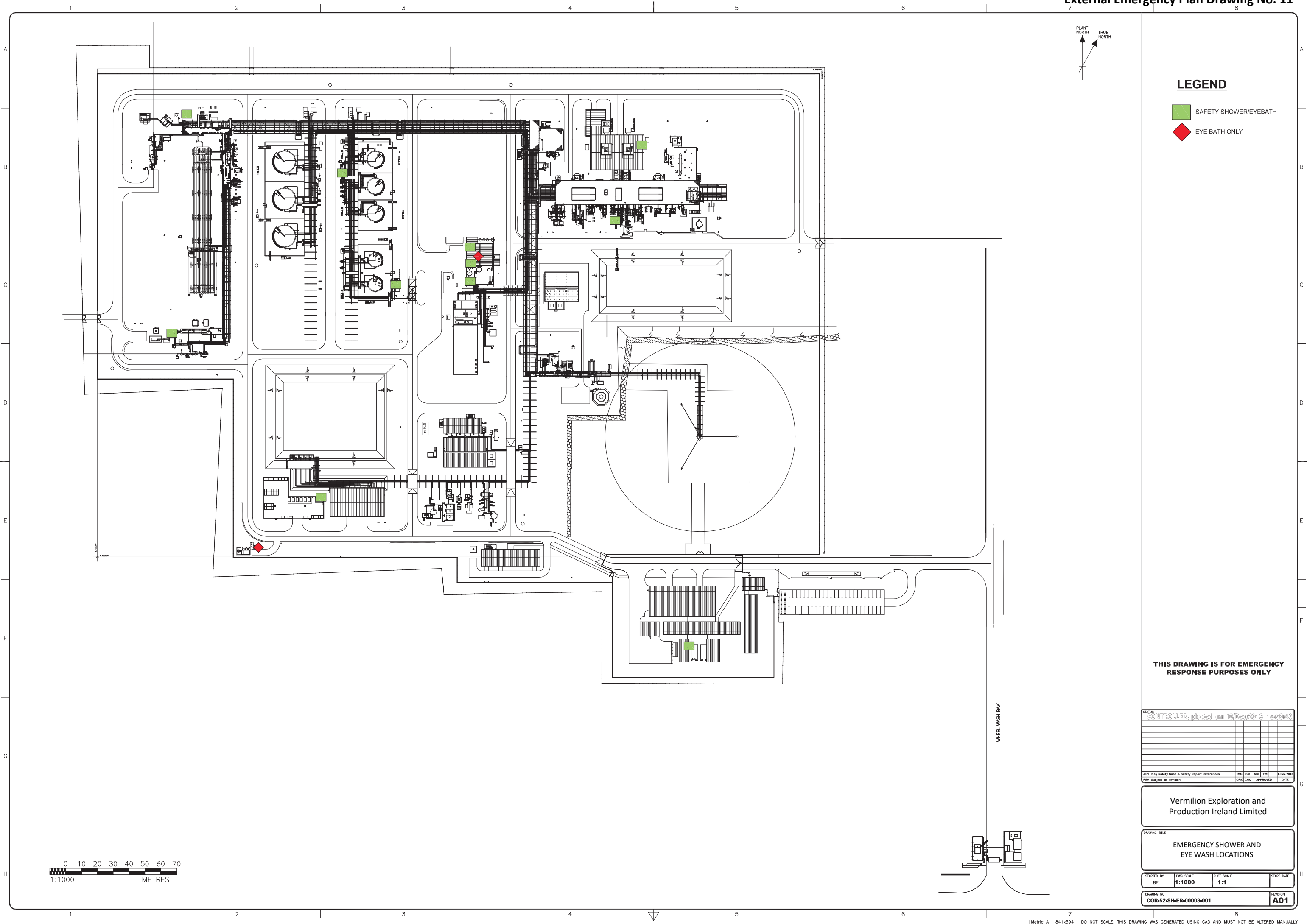
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REV Subject of revision					ORIG	CHK	APPROVED	DATE	

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DRAWING TITLE
FOAM AND WATER MONITORS

STARTED BY BF	DWG SCALE 1:1000	PLOT SCALE 1:1	START DATE
DRAWING NO COR-52-SH-ER-00006-001			REVISION A01



LEGEND

- SAFETY SHOWER/EYEBATH
- EYE BATH ONLY

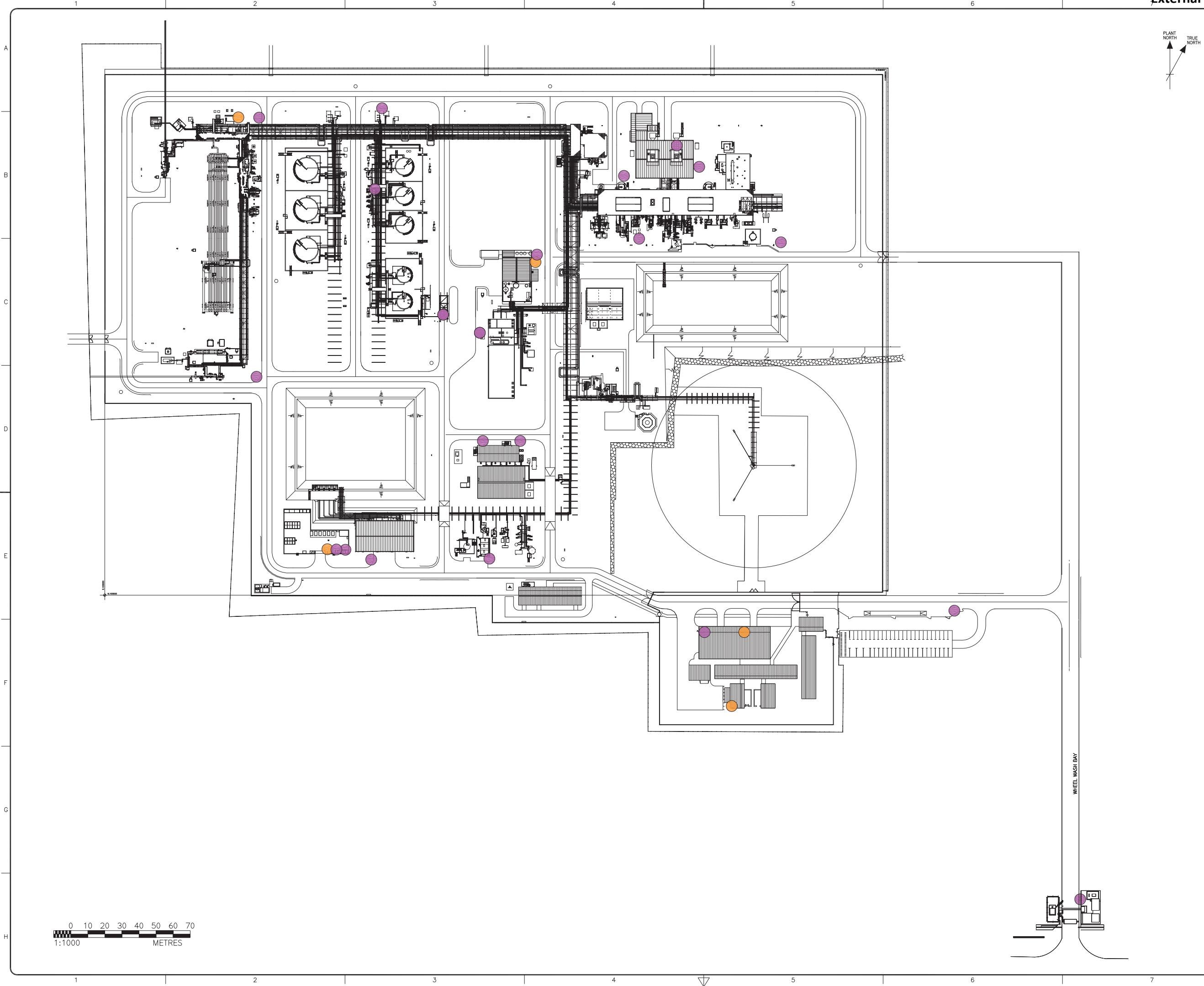
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REV Subject of revision		ORIG	CHK	DATE

Vermilion Exploration and Production Ireland Limited

EMERGENCY SHOWER AND EYE WASH LOCATIONS

STARTED BY	DWG SCALE	PLOT SCALE	START DATE
BF	1:1000	1:1	
DRAWING NO	REVISION		
COR-52-SH-ER-00008-001	A01		



LEGEND

- PORTABLE SPILL KITS
- STATIONARY SPILL KITS

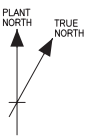
- NOTES
- ALL SPILL KITS CONTAIN MATERIALS TO TREAT BOTH ACID AND OIL SPILLS.

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STATUS: CONTROLLED, plotted on: 10/Dec/2013 16:02:04									

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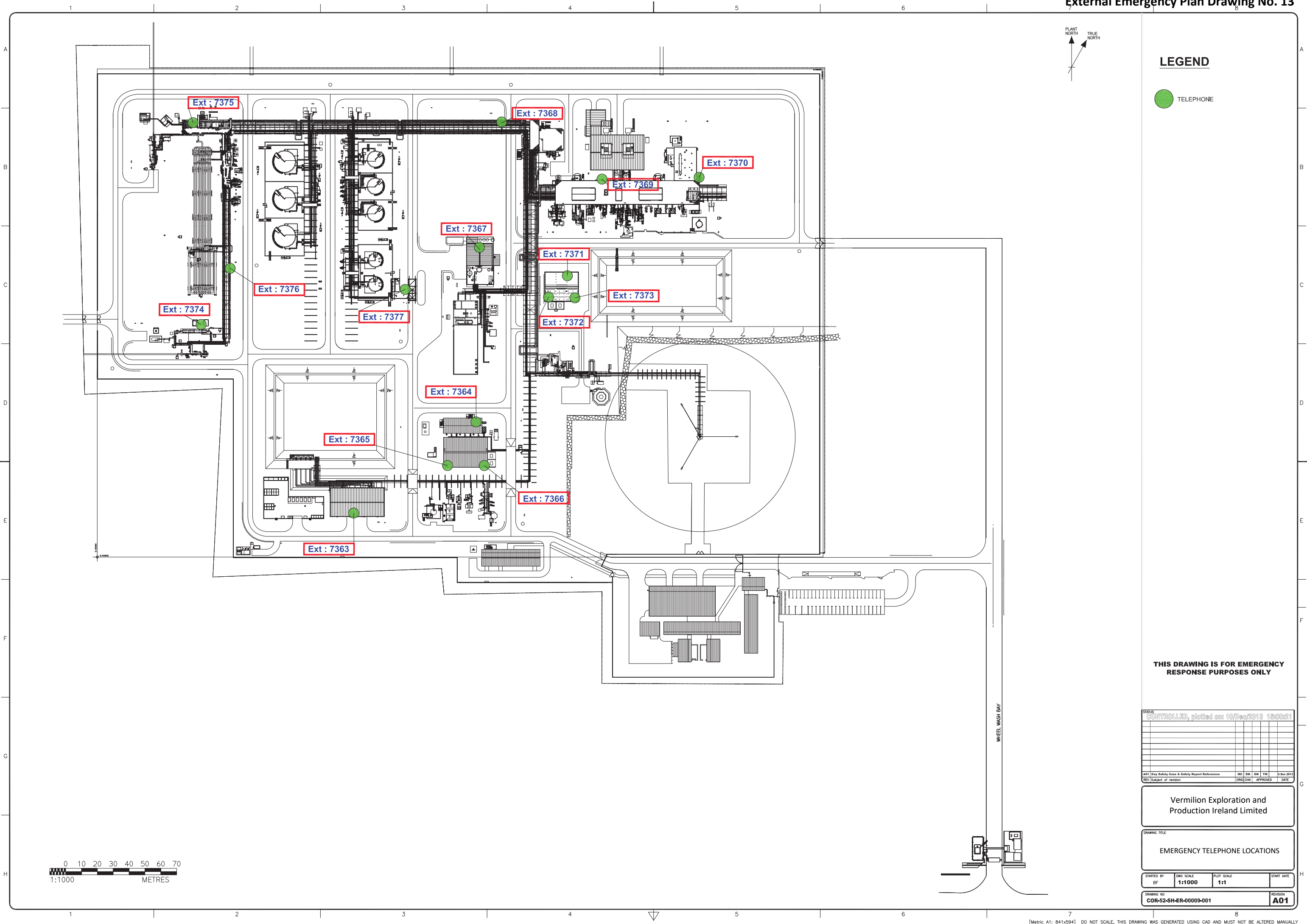
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STARTED BY EF	DWG SCALE 1:1000	PLOT SCALE 1:1	START DATE
DRAWING NO COR-52-SH-ER-00012-001			REVISION A01



LEGEND



TELEPHONE



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RESPONSE PURPOSES ONLY

STATUS											
CONTROLLED, plotted on: 10/Dec/2013 16:00:21											
A01	Key Safety Case & Safety Report References						MC	SM	SM	TM	0 Dec 2013
REV	Subject of revision						ORIG	CHK	APPROVED	DATE	

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EMERGENCY TELEPHONE LOCATIONS

STARTED BY BF	DWG SCALE 1:1000	PLOT SCALE 1:1	START DATE
DRAWING NO COR-52-SH-ER-00009-001	REVISION A01		

NOTES:

1. THE SITE TOPOGRAPHY IS REFERENCED TO ORDINANCE DATUM AT MALIN HEAD USING THE ORDINANCE BENCH MARK AT BELLAGABOY BRIDGE WHICH IS 13.192m ABOVE THE DATUM AT MALIN HEAD.
2. USE FIGURED DIMENSIONS ONLY - DO NOT SCALE.
3. THIS MAPPING IS BASED ON ORTHO-RECTIFIED AERIAL SURVEYS CARRIED OUT BY BKS SURVEYS LIMITED IN AUGUST 2003.
4. MAPPING OUTSIDE OF SITE BOUNDARY UPDATED IN DECEMBER 2007 FOLLOWING REVISION OF OS MAPPING IN 2006.

LEGEND:

- UNCONTAMINATED SURFACE WATER FROM TERMINAL AND LAND SURROUNDING TERMINAL VIA SETTLEMENT PONDS.
- GROUND WATER ISOLATION POINT, MANHOLE 26, CLOSED MANUALLY ON HIGH ALARM READING FROM TC ANALYSER. SEE P&ID L3847-020-110-0080 FOR FURTHER DETAILS.
- UNCONTAMINATED SURFACE WATER IS ISOLATED BY MOTOR OPERATED VALVE AUTOMATICALLY VIA HIGH READING IN TC ANALYSER OR CONFIRMED DETECTION OF FIRE ON TERMINAL OR CLOSED MANUALLY FOLLOWING A SPILLAGE ON THE TERMINAL. VALVE WILL BE MANUALLY OPENED USING TOC ANALYSER READING FOR CONFIRMATION OF NON-CONTAMINATION. SEE P&ID L3847-020-110-0080 FOR FURTHER DETAILS.
- POTENTIALLY CONTAMINATED PAVED AREAS (KERBED) AND ROAD AREAS (KERBED) TO WASTE WATER TREATMENT PLANT
TOTAL AREA = 23314m²
- RETAINED ON SITE FOR FIRE FIGHTING
TOTAL AREA = 3780m²
- CONTROLLED DRAINAGE AREA TO WASTE WATER TREATMENT PLANT
TOTAL AREA = 7185m²
- ADMINISTRATION BUILDING ROOFS DISCHARGE TO LOCAL PEAT DITCHES
TOTAL AREA = 2081m²
- NON-SHADED AREAS DRAIN TO LOCAL PEAT DITCHES.
- EHT EMERGENCY HOLDING TANK.
- MH26 - MANHOLE 26.
- WASTE WATER TREATMENT PLANT.

JPI DOCUMENT No.
COR-36-EMS-79207100-D/A.01U/0039

CONTROLLED, plotted on: 18/Dec/2013 14:50:25

REV	DATE	BY	CHK	APP	DATE
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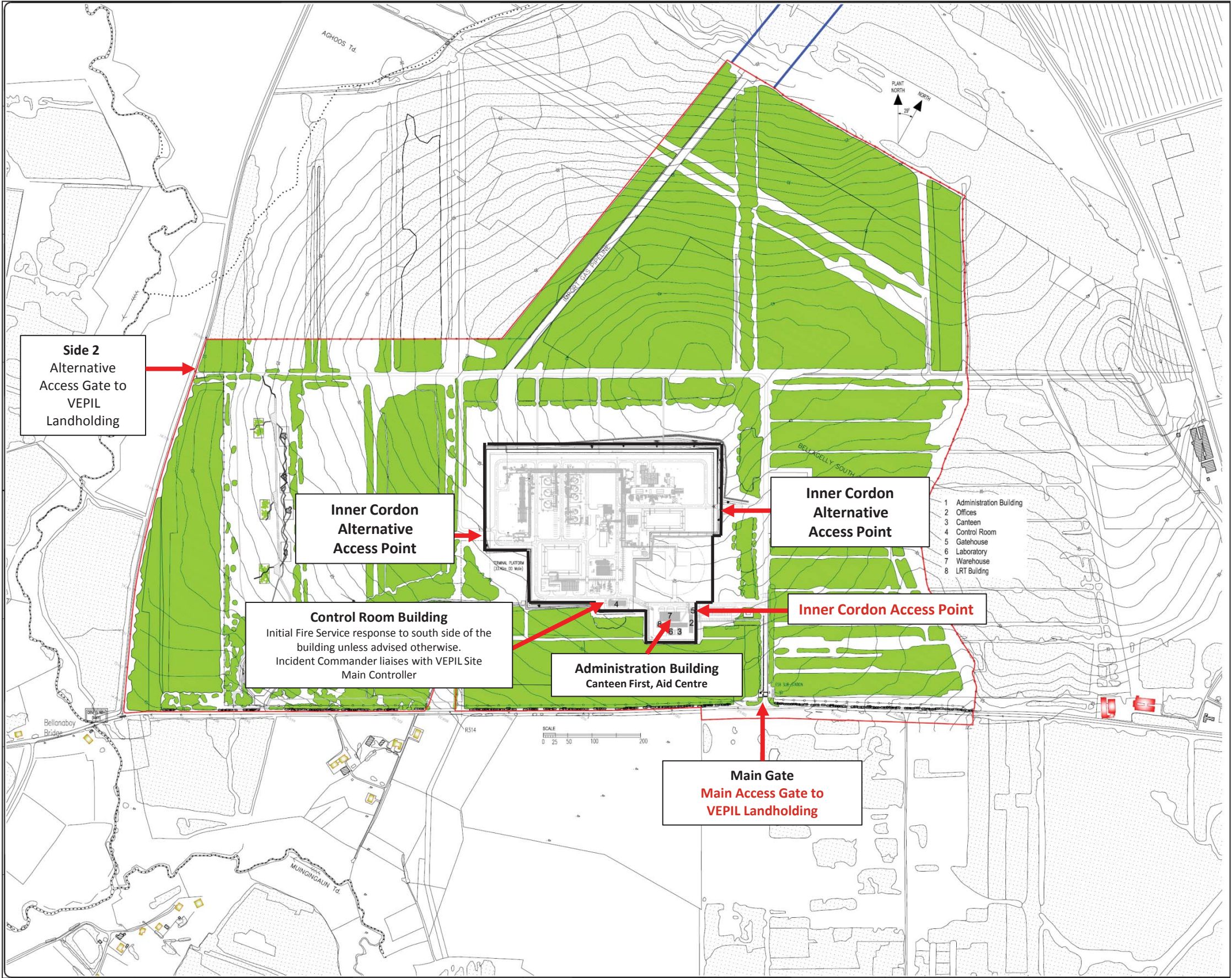
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DRAWING NO	REVISION		
COR-52-SH-0120-001	A01		

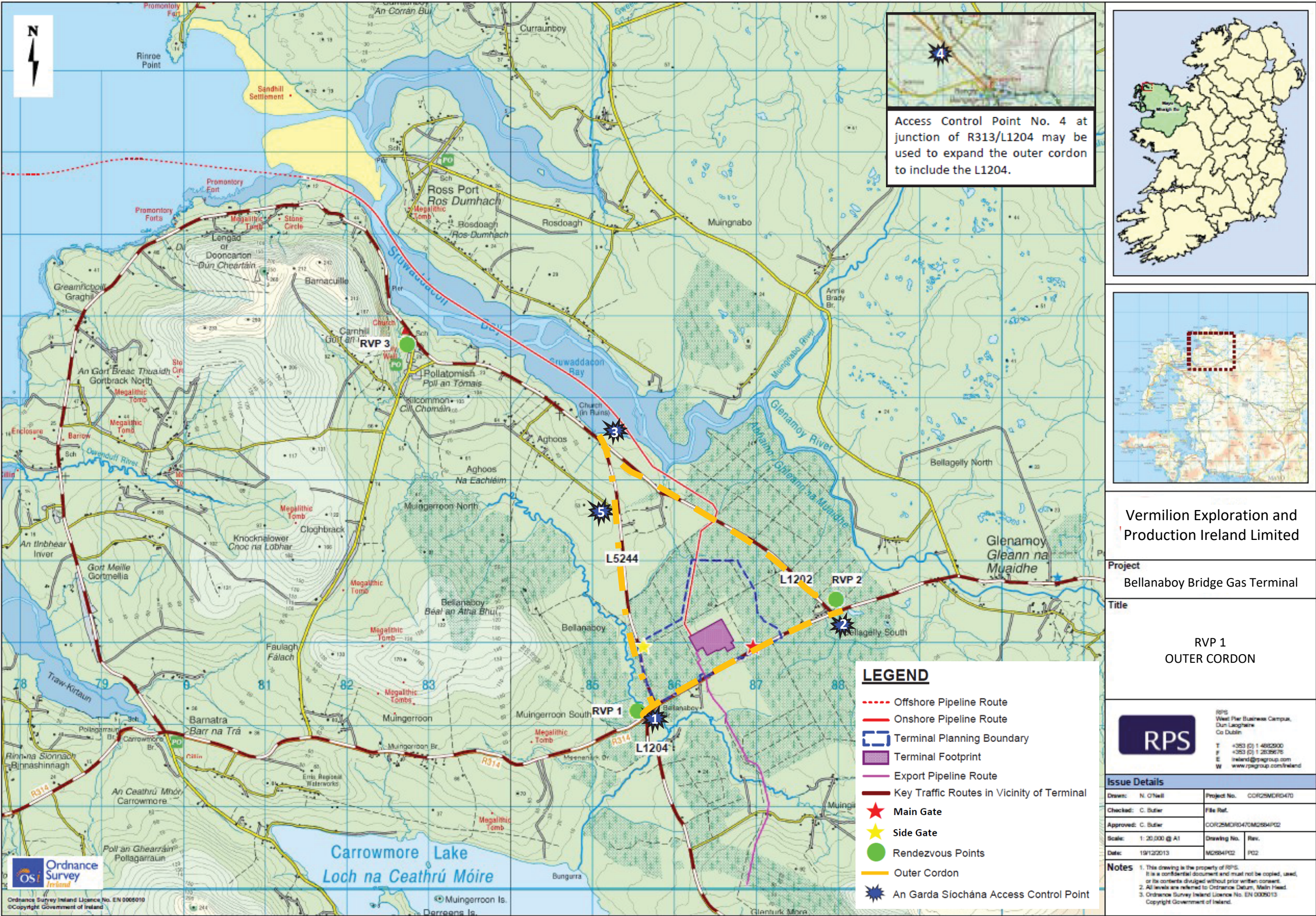
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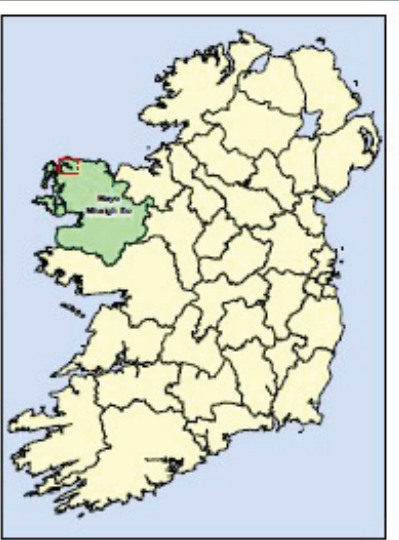
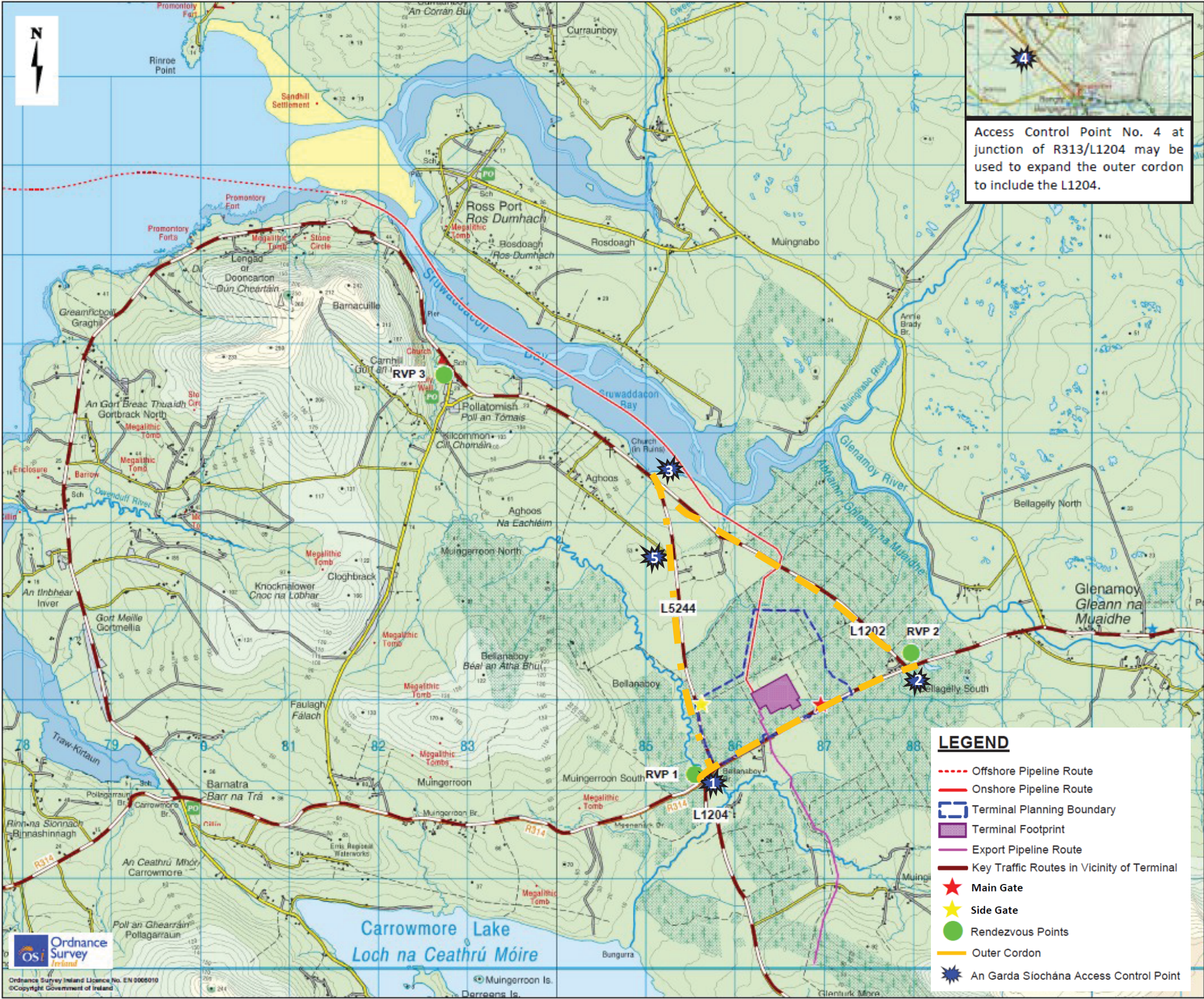
INNER CORDON



RVP 1 OUTER CORDON



RVP 2 OUTER CORDON



Vermilion Exploration and Production Ireland Limited

Project
Bellanaboy Bridge Gas Terminal

Title

RVP 2
OUTER CORDON



RPS
West Pier Business Campus,
Dun Laoghaire,
Co Dublin

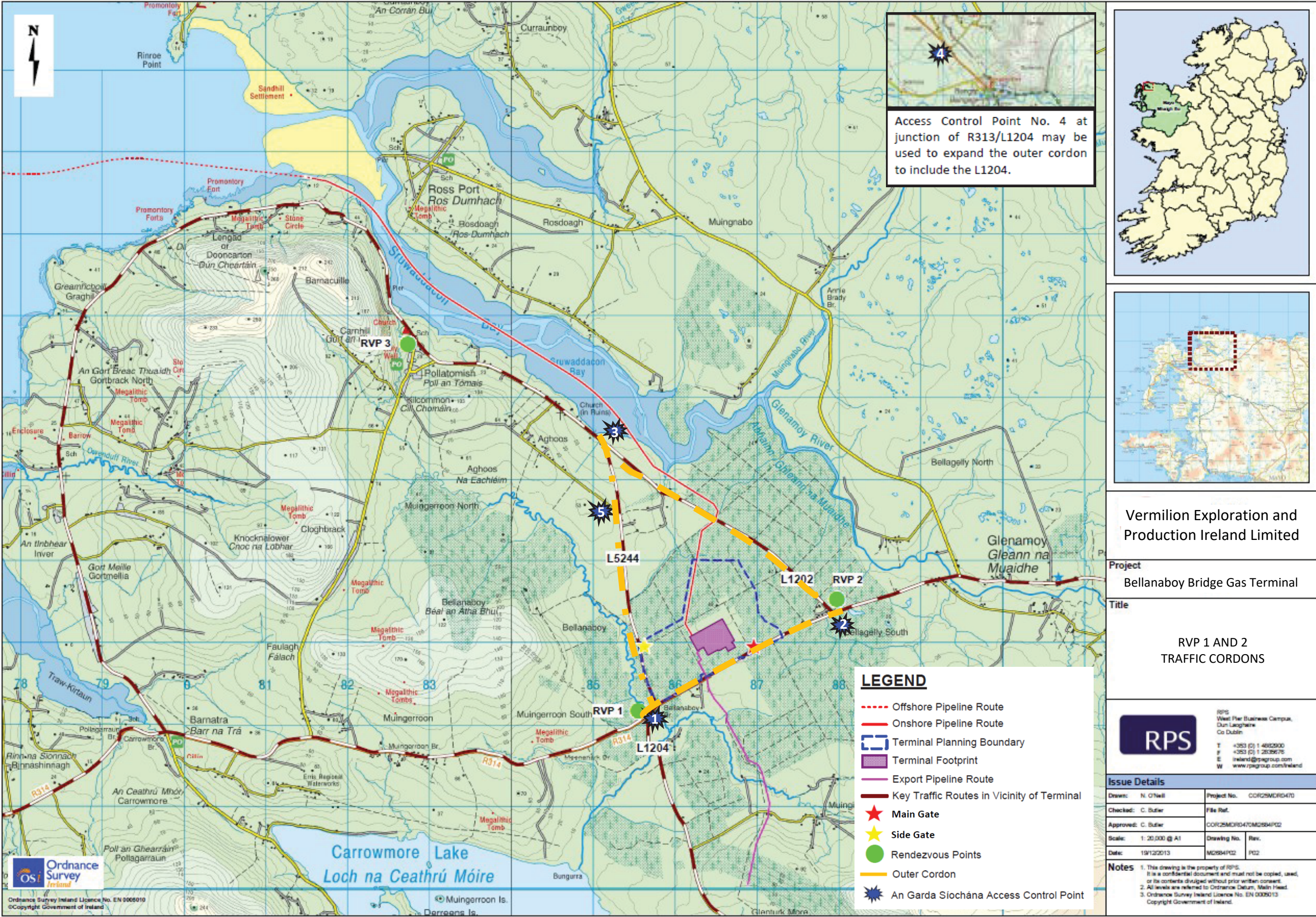
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Issue Details			
Drawn: N. O'Neill	Project No. COR25MDR0470	File Ref.	
Checked: C. Butler		COR25MDR0470M2584P02	
Approved: C. Butler		Drawing No.	Rev.
Scale: 1:20,000 @ A1		M2584P02	P02
Date: 19/12/2013			

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RVP 1 AND 2 TRAFFIC CORDONS



Vermilion Exploration and Production Ireland Limited

Project
Bellanaboy Bridge Gas Terminal

Title
RVP 1 AND 2
TRAFFIC CORDONS

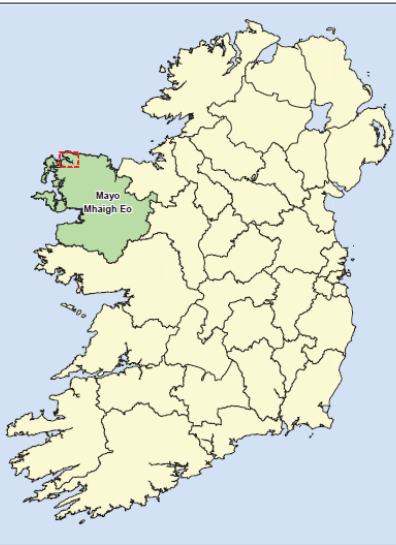


Issue Details	
Drawn: N. O'Neill	Project No: COR25MDR0470
Checked: C. Butler	File Ref: COR25MDR0470M2584P02
Approved: C. Butler	
Scale: 1:20,000 @ A1	Drawing No: M2584P02
Date: 19/12/2013	Rev: P02

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RVP1 Alternative Traffic Cordon



Vermilion Exploration and
Production Ireland Limited

Project
Bellanaboy Bridge Gas Terminal

Title

RVP 1
ALTERNATIVE TRAFFIC CORDONS

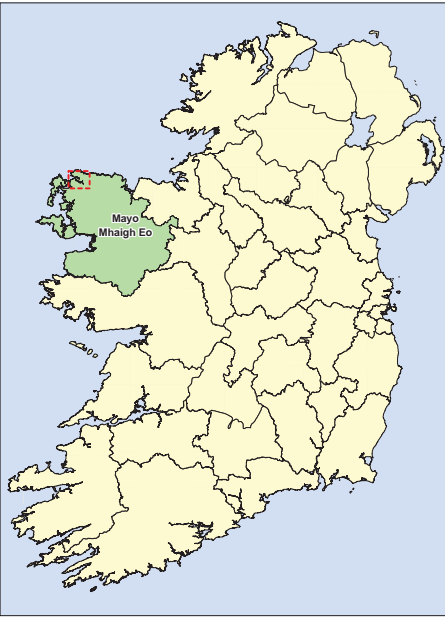
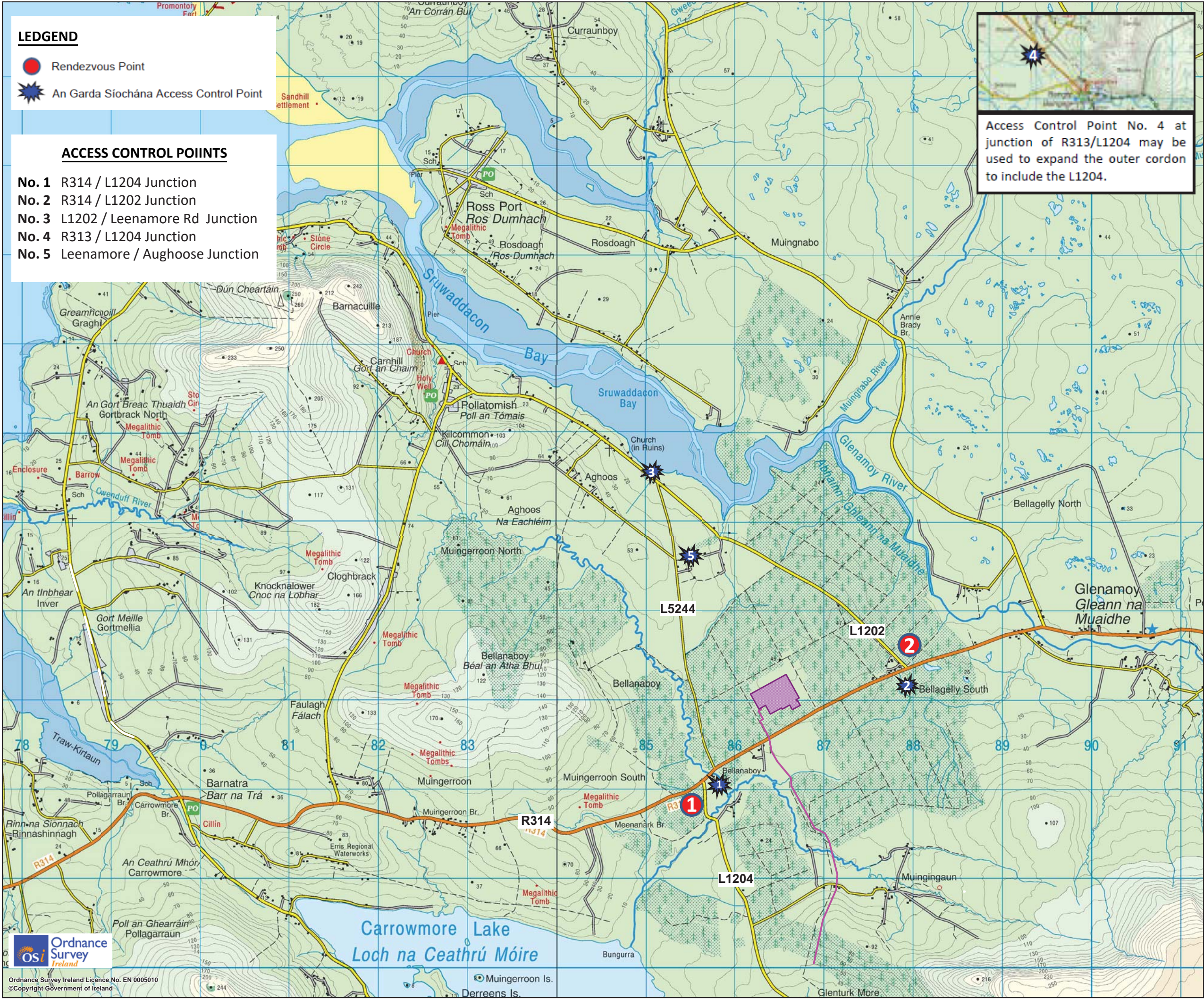


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Approved:	K. McMorland	COR25MDR0470M2092P03	
Scale:	1: 20,000 @ A1	Drawing No.	Rev.
Date:	04/05/2010	DG0100	P03

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Vermilion Exploration and
Production Ireland Limited

Project
Bellanaboy Bridge Gas Terminal

Title
AN GARDÁ SÍOCHÁNA
ACCESS CONTROL POINTS



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Issue Details			
Drawn:	N. O'Neill	Project No.	COR25MDR0470
Checked:	C. Butler	File Ref.	
Approved:	C. Butler	COR25MDR0470M2684P02	
Scale:	1: 20,000 @ A1	Drawing No.	Rev.
Date:	19/12/2013	M2684P02	P02

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APPENDIX 2 INFORMATION ON COMAH DANGEROUS SUBSTANCES

Table 1: COMAH Dangerous Substances – Summary Details

Table 2: COMAH Dangerous Substances – Chemical Characteristics

Table 3: Hazard Statements for the COMAH Dangerous Substances

Table 4: International Hazard Statements

Table 5: European Union Specific Hazard Statements (EUH Statements)

This Appendix lists the dangerous substances in use at the Bellanaboy Bridge Gas Terminal.

An analysis of the quantity and nature of the substances on the Terminal (as part of the Classification as an Upper Tier COMAH Site Report, December 2013) indicates that the substances listed in Table 1 are those with hazards to people and / or the environment.

The name under IUPAC nomenclature relates to single substances and since the substances are generally mixtures, IUPAC names are not appropriate. Therefore, substances are identified by the IUPAC name where appropriate and otherwise by the common name. For all hazardous substances in Table 1, the CAS Numbers of the constituents are provided.

The substance name, physical and toxicological characteristics are summarised in Table 1 and specific chemical characteristics are set out in Table 2.

The hazard statements are defined in Table 3 and a summary of the hazardous substances and their hazard statements are defined in Table 4.

Table 1: COMAH Dangerous Substances – Summary Details

Substance Name	CAS Number	Hazard Statement(s)	Inventory (tonne) - Storage Type - Storage Location	Physical Characteristics (Note 1)		Hazard to People		Hazard to the Environment (Note 3)	Toxicological /Asphyxiation Characteristics
				In Containment	Under Release / Accident Conditions	Immediate	Delayed (Note 2)		
Acetylene	74-86-2	COMAH H220 Non COMAH H280 EUH006	0.39 ----- Gas cylinders ----- Waste and Chemical Storage Area and Admin Building Mechanical Workshop	- Gas dissolved in a liquid medium for stability	- Colourless gas	- Extremely flammable gas - Ignited releases may lead to one or more of the following: - jet fire - flash fire - vapour cloud explosions - Heating may cause an explosion - Explosive with or without contact with air	N/A	N/A	N/A
CIP Chemical Roclean P606	77-92-9 51580-86-0	COMAH H411 Non COMAH H319	0.6 ----- Tank ----- Waste Water Treatment Building	- White powder	- White powder - Released substance would remain in the immediate vicinity - Dealt with using spill kits	-Irritating to eyes	N/A	-Toxic to aquatic life with long lasting effects -NOEC: 0.1-1 mg/l	N/A

Substance Name	CAS Number	Hazard Statement(s)	Inventory (tonne) - Storage Type - Storage Location	Physical Characteristics (Note 1)		Hazard to People		Hazard to the Environment (Note 3)	Toxicological /Asphyxiation Characteristics
				In Containment	Under Release / Accident Conditions	Immediate	Delayed (Note 2)		
Stabilised Condensate (Petroleum products)	64741-47-5	COMAH H224 H411 Non COMAH H304 H315 H336 H340 H350 H361 H411	2082 — Storage tank — Condensate Storage Tanks	- Contained as liquid under atmospheric conditions within storage vessels and present in processing equipment under high pressure	- Brown/straw coloured liquid - Liquid released from atmospheric conditions forms a liquid pool - Liquid released from high pressure processing equipment forms a liquid jet, from which droplets may rain out forming a pool - Any released liquid would flow towards, and enter the drainage / catchment system - Any liquid not retained by the onsite catchment system may travel offsite and pose a threat to the aquatic environment	- Extremely flammable liquid - Ignited releases from the high pressure processing equipment would lead to a combination of jet and pool fires - Ignited releases from the atmospheric storage vessels would lead to pool fires	- Ingestion and /or prolonged exposure: - may cause cancer - may cause heritable genetic damage	- Toxic to aquatic life with long lasting effects - NOEC: 0.1-1 mg/l	N/A
Corrosion Inhibitor KI 302C (Noe 4) comprising: 10-30% Sodium Nitrite (SN) 1-5% Disodium Tetraborate Decahydrate (DSTD)	7632-00-0 (SN) 1303-96-4 (DSTD)	COMAH H400 Non COMAH H302 H315 H319 H360FD	1.1 (Note 4) — Skid — Process Area North (Sales Gas Compressor Building)	N/A	- Colourless to pale yellow liquid with no characteristic odour	- Toxic if swallowed	N/A	- Very toxic to aquatic life - LC50/EC50 ≤ 1 mg/l	- Sodium Nitrite: LD50 85 mg/kg (ingestion, rat) (Note 5)

Substance Name	CAS Number	Hazard Statement(s)	Inventory (tonne) - Storage Type - Storage Location	Physical Characteristics (Note 1)		Hazard to People		Hazard to the Environment (Note 3)	Toxicological /Asphyxiation Characteristics
				In Containment	Under Release / Accident Conditions	Immediate	Delayed (Note 2)		
Corrosion Inhibitor Cortron CK 352 (Note 4) comprising: 25-60% Naphtha 25-60% Organic Phosphate Ester (OPE) <1% Naphthalene	64742-94-5 (Naphtha) CAS not present on SDS (OPE) (Note 6) 91-20-3 (Naphthalene)	COMAH H411 Non COMAH H304 H315 H318 H336	5.5 (Note 4) —— Storage tanks —— Pig Receiver and Subsea Equipment Area (Gas Inlet Area)	N/A	- Any released liquid would flow towards and enter the drainage / catchment system - Any liquid not retained by the on-site catchment system may travel off site and pose a threat to the aquatic environment	- Irritating to skin - Risk of serious damage to eyes - Harmful, may cause lung damage if swallowed - Vapours may cause drowsiness and dizziness	N/A	- Toxic to aquatic life with long lasting effects - NOEC: 0.1-1 mg/l	N/A
Demulsifier (Note 7)	95-63-9 64742-94-5 68425-60-5 78-83-1 91-20-3	COMAH H226 Non COMAH H315 H318 H304 H412	0.05 —— IBC's —— Process Area South and Waste and Chemical Storage Area	N/A	- Dark brown liquid with an 'aromatic' odour	- Flammable liquid - Ignited releases would lead to pool fires	N/A	- Harmful to aquatic life with long lasting effects	N/A
Diesel	68334-30-5	COMAH H411 Non COMAH H304 H315 H332 H350 H373	77 —— Storage tank —— Utilities Area and Fire Water Pumphouse	N/A	- Any released liquid would flow towards, and enter the drainage / catchment system - Any liquid not retained by the onsite catchment system may travel offsite and pose a threat to the aquatic environment	N/A	- Possible risk of irreversible effects	- Toxic to aquatic life with long lasting effects - NOEC: 0.1-1 mg/l	N/A

Substance Name	CAS Number	Hazard Statement(s)	Inventory (tonne) - Storage Type - Storage Location	Physical Characteristics (Note 1)		Hazard to People		Hazard to the Environment (Note 3)	Toxicological /Asphyxiation Characteristics
				In Containment	Under Release / Accident Conditions	Immediate	Delayed (Note 2)		
Hydrocarbon Gas (Natural Gas)	68410-63-9 (Comprising principally: Methane 74-82-8 and Ethane 74-84-0)	COMAH H220 Non COMAH H280	48 ----- Process pipework ----- Slugcatcher, Main Process Area and Gas Pipeline	N/A	- Colourless and odourless gas	- Extremely flammable gas - Ignited releases may lead to one or more of the following: - jet fire - flash fire - vapour cloud explosions	N/A	N/A	N/A
Unstabilised Condensate	68919-39-1	COMAH H224 H411 Non COMAH H304 H315 H336 H340 H350 H361	48 ----- Storage tank ----- Slugcatcher, Main Process Area and Gas Pipeline	- Liquid containing dissolved light end hydrocarbons (Methane, Ethane, etc.) - Present in processing equipment under high pressure	- Brown / straw coloured liquid - Liquid released from high pressure processing equipment forms a liquid jet, from which droplets may rain out forming a pool. On release, the light end hydrocarbons 'flash off' leading to generation of flammable gas - Any released liquid would flow towards and enter the drainage / catchment system - Any liquid not retained by the on-site catchment system may travel off site and pose a threat to the aquatic environment	- Extremely flammable liquid - Ignited releases would lead to a combination of jet and pool fires - Generation and dispersion of flammable gas may lead to a flash fire and /or vapour cloud explosion	- Ingestion and /or prolonged exposure: - may cause cancer - may cause heritable genetic damage	- Toxic to aquatic life with long lasting effects - NOEC: 0.1-1 mg/l	N/A
Hydrogen	1333-74-0	COMAH H220 Non COMAH H280	0.005 ----- Gas cylinders ----- Laboratory in Admin Building	- Pressurised gas contained in cylinders	- Colourless and odourless gas	- Extremely flammable gas - Ignited releases may lead to one or more of the following: - jet fire - flash fire - vapour cloud explosions	N/A	N/A	N/A

Substance Name	CAS Number	Hazard Statement(s)	Inventory (tonne) - Storage Type - Storage Location	Physical Characteristics (Note 1)		Hazard to People		Hazard to the Environment (Note 3)	Toxicological /Asphyxiation Characteristics
				In Containment	Under Release / Accident Conditions	Immediate	Delayed (Note 2)		
Methanol (Product) - 98% Aqueous Methanol	67-56-1	COMAH H225 H301 H331 Non COMAH H311 H370	787 — Storage tanks — Product Methanol storage tanks	N/A	- Colourless liquid with a distinctive odour - Releases form liquid pools from which vapour may be generated with subsequent dispersion	- Toxic by inhalation, in contact with skin and if swallowed	N/A	N/A	- LD50 5300 mg/kg (ingestion, rat) - LC50 83.8 mg/l (inhalation, rat, 4 hour) (Note 8)
Methanol (Raw) - 40% Aqueous Methanol	67-56-1	COMAH H225 H301 H331 Non COMAH H311 H370	3391 — Storage tanks — Raw Methanol storage tanks	N/A	- Colourless liquid with a distinctive odour - Releases form liquid pools from which vapour may be generated with subsequent dispersion	- Toxic by inhalation, in contact with skin and if swallowed	N/A	N/A	- LD50 5300 mg/kg (ingestion, rat) - LC50 83.8 mg/l (inhalation, rat, 4 hour) (Note 8)
Nitric Acid	7697-37-2	COMAH H272 Non COMAH H314 H318	0.05 — Drums — Laboratory in Admin Building and Waster and Chemical Storage Area	N/A	- Light yellow / colourless liquid with acrid odour - Liquid on release which will pool and can result in generation of vapour	- May cause severe skin burns and eye damage - May intensify fires and corrode metals	N/A	N/A	N/A
Odorant comprising: 80% Tert Butyl Mercaptan, TBM (IUPAC 2-Methylpropane-2-thiol) 20% Dimethyl Sulphide, DMS (IUPAC Methylsulphanyl-methane)	75-66-1 (TBM) 75-18-3 (DMS)	COMAH H225 H411 Non COMAH H317 H319	9 — Storage tanks — Sales Gas Export Area	N/A	- Pale yellow liquid with a distinctive odour - Releases form liquid pools from which vapour may be generated with subsequent dispersion	- Toxic by inhalation - Extremely flammable liquid - Ignited releases would lead to pool fires	N/A	- Toxic to aquatic life with long lasting effects - NOEC: 0.1-1 mg/l.	- DMS LC50 0.17 mg/l (inhalation, rat, 4 hour) (Note 9) - Mixture LC50 0.85 mg/l

Substance Name	CAS Number	Hazard Statement(s)	Inventory (tonne) - Storage Type - Storage Location	Physical Characteristics (Note 1)		Hazard to People		Hazard to the Environment (Note 3)	Toxicological /Asphyxiation Characteristics
				In Containment	Under Release / Accident Conditions	Immediate	Delayed (Note 2)		
Oxygen	7782-44-7	COMAH H270 Non COMAH H280	0.5 — Gas cylinders — Waster and Chemical Storage Area	- Pressurised gas	- Colourless gas	- Oxidiser - may cause or intensify fire - Contains gas under pressure – may explode if heated	N/A	N/A	N/A
Oxygen Scavenger – Diethyl-hydroxylamine (DEHA)	3710-84-7	COMAH H226 H411 Non COMAH H312 H332 H335	3 — Storage tank — Tanker Loading Area and Waste and Chemical Storage Area	N/A	- Yellowish liquid with an amine-like odour	- Flammable liquid - Ignited releases would lead to pool fires	N/A	- Toxic to aquatic life with long lasting effects - NOEC: 0.1-1 mg/l	N/A
Propane	74-98-6	COMAH H220 Non COMAH H280	0.47 — Gas cylinders — Maintenance Flare Area and Waste and Chemical Storage	- Liquefied pressurised gas	- Colourless and odourless gas - Releases form aerosol jets from which droplets may 'rain out' and subsequently evaporate	- Extremely flammable gas - Ignited releases may lead to one or more of the following: - jet fire - flash fire - vapour cloud explosions	N/A	N/A	N/A
Sodium Hypochlorite Solution	7681-52-9	COMAH H400 Non COMAH H290 H314 EUH031	0.5 — Drums — Laboratory in Admin Building	N/A	- Any released liquid would flow towards and enter the drainage / catchment system - Any liquid not retained by the on-site catchment system may travel off site and pose a threat to the aquatic environment	- Causes burns - Risk of serious damage to eyes	N/A	- Very toxic to aquatic organisms - LD50 / EC50: <1 mg/l	N/A

Notes

1. The physical characteristics of some substances are different dependent on whether the substance is in containment or under accident conditions - where there is a difference, this is noted. Otherwise, the physical characteristics in containment are considered the same as under release conditions, and N/A (not applicable) is recorded in the 'In Containment' column.
2. Delayed hazards are summarised for substances where there is a potential long term or chronic effect resulting from exposure, these are noted; for all other substances, N/A - not applicable, is noted.
3. The 'Hazard to the Environment' information is provided only for those substances which possess hazard statements that relate to an environmental hazard (H400, H410, H411); all other substance are marked 'N/A'.
4. The Classification as an Upper Tier COMAH Site Report provided information for the set of corrosion inhibitors. For the purposes of this table, information for both KI 302C and CK 352 are presented separately as they individually represent the different hazards to people and the environment.
5. Toxicological data for Sodium Nitrite from the IUCLID Safety Data Sheet.
6. The Safety Data Sheet does not provide the CAS number for Organic Phosphate Ester (OPE). The OPE does not contribute to the overall (COMAH relevant) hazard statements (OPE hazard statements H315 and H318 apply). Therefore, for identification purposes, and in the absence of specific information, the provision of CAS numbers for the other main constituents (which contribute to the overall risk phrases) is deemed suitable and sufficient.
7. Exact demulsifier product not chosen so representative MSDS used.
8. Toxicological data for Methanol from the IUCLID Safety Data Sheet. LC50 and LD50 values are for Pure Methanol, 100%.
9. Toxicological data for Dimethyl Sulphide from the IUCLID Safety Data Sheet.

Table 2: COMAH Dangerous Substances – Chemical Characteristics

Description	Chemical Characteristics								Safety Data Sheet (SDS) Source
	Boiling Point (°C)	Melting Point (°C)	Density (kg/m³)	Lower Flammability Limit (v/v)	Upper Flammability Limit (v/v)	Autoignition Temperature (°C)	Flash Point (°C) ^(Note 1)	Vapour Pressure	
Acetylene	-84.2	-80.8	1.1	2.4%	83%	325	-18	44 bar @ 20°C	SDS ^(Note 2)
CIP Chemical Roclean P606	-	-	1050 - 1150	Not flammable	Not flammable	Not flammable	Not flammable	N/A	SDS ^(Note 3)
Stabilised Condensate (Petroleum products)	35-350	N/A	700-870	0.6%	8.7%	>200	<0	Data not available	SDS ^(Note 4)
Corrosion Inhibitor KI 302C ^(Note 5) comprising: - 10-30% Sodium Nitrite (SN) - 1-5% Disodium Tetraborate Decahydrate (DSTD)	100	-13	1148-1180	Not flammable	Not flammable	Not flammable	Not flammable	2.1 kPa @ 20°C	SDS ^(Note 6)
Corrosion Inhibitor Cortron CK352 ^(Note 5) comprising: - 25-60% Naphtha - 25-60% Organic Phosphate Ester (OPE) <1% Naphthalene	>175	< -50 (pour point)	915-945	0.01	7	320	65 (approx)	1 hPa (0.001 bar) @ 20°C	SDS ^(Note 7)
Demulsifier	108	<-35	925-995	N/A	N/A	N/A	24	4.41 kPa @ 38°C	SDS ^(Note 8)
Diesel	180	N/A	820 - 880	0.5%	5%	250	60	<0.1 kPa @ 20°C	SDS ^(Note 9)
Hydrocarbon Gas (Natural Gas)	-195	N/A	0.7 - 1.0	4%	17%	575-640	-187	N/A	SDS ^(Note 10)
Unstabilised Condensate	<35 ^(Note 11)	N/A	700-940	0.6%	8.7%	>200	<0	Data not available	SDS ^(Note 4)
Hydrogen	-252.9	-252.9	0.07	4%	75%	560	N/A	N/A	SDS ^(Note 12)

Description	Chemical Characteristics								Safety Data Sheet (SDS) Source
	Boiling Point (°C)	Melting Point (°C)	Density (kg/m³)	Lower Flammability Limit (v/v)	Upper Flammability Limit (v/v)	Autoignition Temperature (°C)	Flash Point (°C) ^(Note 1)	Vapour Pressure	
Methanol (Product) - 98% Aqueous Methanol	64-65	-98	792	6%	36%	455	11	130.3 hPa @ 20°C	SDS ^(Note 13)
Methanol (Raw) - 40% Aqueous Methanol	80 ^(Note 14)	-38 ^(Note 14)	940 ^(Note 14)	6%	36%	455	29 ^(Note 14) Error! Reference source not found.	97 mmHg	SDS ^(Note 13) for pure Methanol, except where indicated
Nitric Acid	83	0	1025	Not flammable	Not flammable	Not flammable	Not flammable	23 hPa @ 20°C	SDS ^(Note 15)
Odorant comprising: 80%Tert Butyl Mercaptan, TBM (IUPAC 2-Methylpropane-2-thiol) 20% Dimethyl Sulphide, DMS (IUPAC Methylsulphanyl-methane)	55	-30	848 ^(Note 18)	2.2% ^(Note 18)	19.7% ^(Note 18)	247	-30	530 hPa @ 25°C ^(Note 18)	SDS ^(Note 16) , except for where indicated, where information for DMS is presented
Oxygen	-183	-219	1.429	Not flammable	Not flammable	Not flammable	Not flammable	N/A	SDS ^(Note 17)
Oxygen Scavenger Diethyl-hydroxylamine (DEHA)	96	-25	902	N/A	N/A	N/A	49.5	43 hPa @ 25°C	SDS ^(Note 18)
Propane	-42.1	-188	500-510	1.7%	10.8%	470	-104	N/A	SDS ^(Note 19)
Sodium Hypochlorite Solution	102	-16	1220 - 1250	N/A	N/A	N/A	N/A	20 hPa (0.02 bar) @ 20°C	SDS ^(Note 20)

Notes

1. Pensky-Martens Closed Cup Method for flash point determination.
2. Air Products. Safety Data Sheet Acetylene. Version 1.24, revision date 05.01.2013. MSDS number 300000000002.
3. Avista Technologies, Safety Data Sheet RoClean P606, Revision 4, revision date 09.10.2015.
4. Shell E&P Ireland Limited. Safety Data Sheet Natural Gas Condensates (Sweet). Version 1.0, revision date 29.08.2014.
5. The COMAH notification provided information for the set of corrosion inhibitors. For the purposes of this table, information for both KI-302C and CK352 are presented separately as they individually represent the different hazards to people.
6. M-I Swaco. Safety Data Sheet Corrosion Inhibitor KI-302C. Revision date 08.07.2015. SDS no. 11794.
7. Champion Technologies. Safety Data Sheet Cortron CK352. Revision Date 22.06.2012.
8. Baker Petrolite. Safety Data Sheet Demulsifier DMO80046. Revision date 18.07.2005.
9. EMO Oil Ireland. Safety Data Sheet Marked Gas Oil. December 2011.
10. Shell E&P Ireland. Safety Data Sheet Natural Gas, dried. Version 1.0, revision date 22.08.2014.
11. Initial boiling point <35°C (due to presence of light end hydrocarbons).
12. Air Products. Safety Data Sheet Hydrogen. Version 1.20, revision date 03.08.2015. MSDS number 3000000000074.
13. Fisher Chemical. Safety Data Sheet Methanol. Revision Number 8. Revision Date 04.09.2013.
14. The Methanol Institute Technical Information - series of graphs presenting physical properties of methanol versus concentration in water. Properties taken from graphs, for 40% methanol.
15. Reagecon. Safety Data Sheet Nitric Acid. Version 17. Revision date 01.04.2015
16. Robinson Brothers. Safety Data Sheet Odorant NB. Revision No. 5, revision date 24.11.2005.
17. Air Products. Safety Data Sheet Oxygen. Version 1.21. Revision Date 05.05.2015. SDS number 3000000000110.
18. Mi Swaco. Safety Data Sheet DEHA 85%. Version 1. Revision date 27.06.2014. SDS number MI22851.
19. BOC. Safety Data Sheet Propane. Version 1.4. Revision date 14.03.2013.
20. Fisher Scientific. Safety Data Sheet Sodium Hypochlorite Solution. Revision Number 4. Revision date 01.10.2012.

Table 3: Hazard Statements for the COMAH Dangerous Substances

Description	Hazard Statement (CLP Regulations)
Acetylene	H220, H280, EUH006
CIP Chemical Roclean P606	H319, H411
Stabilised Condensate (Petroleum products)	H224, H304, H315, H336, H340, H350, H361, H411
Corrosion Inhibitor KI302C	H302, H315, H319, H400, H360FD
Corrosion Inhibitor CK352	H304, H315, H318, H336, H411
Demulsifier	H226, H315, H318, H304, H412
Diesel	H304, H315, H332, H350, H373, H411
Hydrocarbon Gas (Natural gas)	H220, H280
Unstabilised Condensate	H224, H304, H315, H336, H340, H350, H361, H411
Hydrogen	H220, H280
Methanol (Product) - 98% Aqueous Methanol	H225, H331, H311, H301, H370
Methanol (Raw) - 40% Aqueous Methanol	H225, H331, H311, H301, H370
Nitric Acid	H272, H314, H318
Odorant (80%Tert Butyl Mercaptan, TBM, 20% Dimethyl Sulphide, DMS)	H225, H319, H317, H411
Oxygen	H270, H280
Oxygen Scavenger Diethyl-hydroxylamine (DEHA)	H312, H332, H411, H335, H226
Propane	H220, H280
Sodium Hypochlorite Solution	H290, H314, H400, EUH031

Table 4: International Hazard Statements

International Hazard Statements	
Physical Hazards	
H200	- Unstable explosive
H201	- Explosive; mass explosion hazard
H202	- Explosive; severe projection hazard
H203	- Explosive; fire, blast or projection hazard
H204	- Fire or projection hazard
H205	- May mass explode in fire
H220	- Extremely flammable gas
H221	- Flammable gas
H222	- Extremely flammable material
H223	- Flammable material
H224	- Extremely flammable liquid and vapour
H225	- Highly flammable liquid and vapour
H226	- Flammable liquid and vapour
H227	- Combustible liquid
H228	- Flammable solid
H240	- Heating may cause an explosion
H241	- Heating may cause a fire or explosion
H242	- Heating may cause a fire
H250	- Catches fire spontaneously if exposed to air
H251	- Self-heating; may catch fire
H252	- Self-heating in large quantities; may catch fire
H260	- In contact with water releases flammable gases which may ignite spontaneously
H261	- In contact with water releases flammable gas
H270	- May cause or intensify fire; oxidizer
H271	- May cause fire or explosion; strong oxidizer
H272	- May intensify fire; oxidizer
H280	- Contains gas under pressure; may explode if heated
H281	- Contains refrigerated gas; may cause cryogenic burns or injury
H290	- May be corrosive to metals
Health Hazards	
H301	- Toxic if swallowed
H302	- Harmful if swallowed
H303	- May be harmful if swallowed
H304	- May be fatal if swallowed and enters airways
H310	- Fatal in contact with skin
H311	- Toxic in contact with skin
H312	- Harmful in contact with skin
H313	- May be harmful in contact with skin

H314	-	Causes severe skin burns and eye damage
H315	-	Causes skin irritation
H316	-	Causes mild skin irritation
H317	-	May cause an allergic skin reaction
H318	-	Causes serious eye damage
H319	-	Causes serious eye irritation
H320	-	Causes eye irritation
H330	-	Fatal if inhaled
H331	-	Toxic if inhaled
H332	-	Harmful if inhaled
H333	-	May be harmful if inhaled
H334	-	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	-	May cause respiratory irritation
H336	-	May cause drowsiness or dizziness
H340	-	May cause genetic defects
H341	-	Suspected of causing genetic defects
H350	-	May cause cancer
H351	-	Suspected of causing cancer
H360	-	May damage fertility or the unborn child
H361	-	Suspected of damaging fertility or the unborn child
H362	-	May cause harm to breast-fed children
H370	-	Causes damage to organs
H371	-	May cause damage to organs
H372	-	Causes damage to organs through prolonged or repeated exposure
H373	-	May cause damage to organs through prolonged or repeated exposure
Environmental Hazards		
H400	-	Very toxic to aquatic life
H401	-	Toxic to aquatic life
H402	-	Harmful to aquatic life
H410	-	Very toxic to aquatic life with long lasting effects
H411	-	Toxic to aquatic life with long lasting effects
H412	-	Harmful to aquatic life with long lasting effects
H413	-	May cause long lasting harmful effects to aquatic life

Table 5: European Union Specific Hazard Statements (EUH Statements)

European Union Specific Hazard Statements (EUH Statements)		
Physical Hazards		
EUH001	-	Explosive when dry
EUH006	-	Explosive with or without contact with air
EUH014	-	Reacts violently with water
EUH018	-	In use may form flammable/explosive vapour air mixture
EUH019	-	May form explosive peroxides
EUH044	-	Risk of explosion if heated under confinement
Health Hazards		
EUH029	-	Contact with water liberates toxic gas
EUH031	-	Contact with acid liberates toxic gas
EUH032	-	Contact with acids liberates very toxic gas
EUH066	-	Repeated exposure may cause skin dryness or cracking
EUH070	-	Toxic by eye contact
EUH071	-	Corrosive to the respiratory tract
Environmental Hazards		
EUH059	-	Hazardous to the Ozone layer
Other EU Hazard Statements		
EUH201	-	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children
EUH201A	-	Warning! Contains lead
EUH202	-	Cyanocrylate. Danger, bonds skin and eyes in seconds, keep out of reach of children
EUH203	-	Cyanocrylate chromium (VI), may produce an allergic reaction
EUH204	-	Contains isocyanates, may produce an allergic reaction
EUH205	-	Contains epoxy constituents, may produce an allergic reaction
EUH206	-	Warning! Do not use together with other products, may release dangerous gases (Chlorine)
EUH207	-	Warning! Contains Cadmium, dangerous fumes are formed during use, see information supplied by the manufacturer, comply with the safety instructions
EUH208	-	Contains sensitising agent, may produce an allergic reaction
EUH209	-	Can become highly flammable in use
EUH209A	-	Can become flammable in use
EUH210	-	Safety data sheet available on request
EUH401	-	To avoid risks to human health and the environment, comply with the instructions for use

APPENDIX 3 SITE ARRANGEMENTS FOR RESPONDING EMERGENCY SERVICES



SITE ARRANGEMENTS FOR RESPONDING EMERGENCY SERVICES

**Bellanaboy Bridge Gas Terminal
(‘Corrib Gas Terminal’)**

**Bellanaboy Bridge
Bellagelly South
Barnatra
Ballina
Co. Mayo**

2020

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INTRODUCTION

This document has been developed to assist the emergency services from the principal response agencies (PRA's) respond to an incident at the Bellanaboy Bridge Gas Terminal (BBGT).

This document outlines the particular Site Management Arrangements and Traffic Cordons to be put in place.

Refer to Appendix A for a site location map.

Please note that a separate Site Arrangements for Responding Emergency Services Document has been developed for an emergency event associated with the Corrib Gas Onshore Pipeline and Landfall Valve Installation.

SECTION 1 RENDEZVOUS POINTS AND HOLDING AREAS

1.1 Rendezvous Points

The rendezvous point is the location to which all resources responding to the emergency are directed in the first instance (apart from the first Fire Service response vehicle which will proceed onto the terminal and park at the rear of the Control Room).

An Garda Síochána organise the rendezvous point. Other agencies may have a marshalling officer present to direct responding vehicles to the scene.

There are two rendezvous points associated with an emergency event at the BBGT. (A third rendezvous point, 'RVP 3', is associated with the Corrib Gas On-shore Pipeline and is outside the scope of this document.) For any incident, only one rendezvous point will be used.

In the event of an emergency, the VEPIL Control Room Operator, when contacting the emergency services, will direct the responding agency to RVP 1 or RVP 2.

The primary rendezvous point for the terminal is RVP 1. The alternative rendezvous point, RVP 2, may be selected based on the incident details and other factors, including wind direction.

Refer to Appendix B for an overview of the location of the rendezvous points.

1.1.1 Location of Rendezvous Point 1

Rendezvous Point 1 is located at the lay-by adjacent to the junction of R314 and L1204 (Haulage Road). It is located 1.3 km west of the main gate and approximately 6.1km east of Barnatra.



Figure 1.1 Rendezvous Point 1 (RVP 1)

1.1.2 Location of Rendezvous Point 2

Rendezvous Point 2 is located at the junction of Belmullet to Ballycastle Road R314 and the Glenamoy to Glengad Road (L1202).



Figure 1.2 **Rendezvous Point 2 (RVP 2)**

1.1.3 Access Routes to Rendezvous Points

The emergency services responding to an incident at the BBGT will travel from various locations, as deemed necessary by each of the individual principal response agencies. Accordingly, the access route to the designated rendezvous point will vary based on the direction of approach. The route to each rendezvous point is predetermined to facilitate a more efficient and co-ordinated response.

Refer to Appendix B for route maps from Belmullet and Castlebar / Ballina to each rendezvous point and refer to Appendix C for maps, photographs and directions to each point.

1.2 Holding Areas

The holding area is the location that resources which are not immediately required at the site will wait until requested. An Garda Síochána will organise the holding area. Other services may have a Marshalling Officer present to direct responding vehicles into action.

The location of the holding area is determined by the choice of the designated rendezvous point.

1.2.1 Location of Holding Area 1

Holding Area 1 corresponds to RVP 1 and is located adjacent to the junction of the R314 and L1204 (Haulage Route), both on the L1204 and R314, as deemed necessary.

Holding Area 1 is located in close proximity to Rendezvous Point 1.

1.2.2 Location of Holding Area 2

Holding Area 1 corresponds to RVP 2 and is located adjacent to the junction of the R314 and L1202, both on the L1202 and the R314, as deemed necessary.

Holding Area 2 is located in close proximity to Rendezvous Point 2.

SECTION 2 ON-SITE CO-ORDINATION POINT

2.1 On-Site Co-ordination Point

The on-site co-ordination point is the location from which the PRA's will control, direct and co-ordinate their organisations response to the emergency.

A representative from VEPIIL will attend the initial on-site co-ordination point.

2.1.1 Initial On-Site Co-ordination Point

The initial on-site co-ordination point is located at the designated holding area for the incident. The on-site co-ordination point may be repositioned depending on the location, type and duration of the incident.

2.2 On-Site Co-ordination Centre

If a Major Emergency is declared under the Framework for Major Emergency Management, the On-Site Co-ordination Group may convene at the VEPIIL Office in Belmullet (Unit 4, Údarás na Gaeltachta, Belmullet) or at a suitable alternative location.

SECTION 3 CORDONS

3.1 Inner Cordon

The inner cordon defines an area where the emergency services work to rescue casualties and survivors and deal with the substance of the emergency.

The inner cordon should be under the control of the lead agency.

For the BBGT, the inner cordon is defined by the double-fence line around the main terminal site. The cordon will be secured by security staff from the terminal acting under the direction of the lead agency. Persons working inside this area should have appropriate Personnel Protective Equipment (PPE).

Refer to Appendix D for a map showing the inner cordon.

3.1.1 Inner Cordon Access Point

The main inner cordon access point is located at the BBGT Administration Building. An alternative inner cordon access point is also available on the east and west side of the terminal double fence line.

The access point should be under the control of the lead agency. This point will also be manned by security staff from the terminal.

Refer to Appendix D for a map showing the inner cordon access points.

3.2 Outer Cordon

The outer cordon seals off an extensive area around the site. The area between the inner cordon and outer cordon is used by the principal response agencies to provide support to personnel within the inner cordon. This area can be used for the casualty clearing station, the ambulance loading area, etc.

The outer cordon is the triangle of roads immediately around the terminal; the Belmullet to Ballycastle Road (R314), the Glenamoy to Glengad Road (L1202) and the Leenamore Road (L5244).

Refer to Appendix E for a map showing the outer cordon.

3.2.1 Outer Cordon Access Point

The Outer Cordon Access Points are controlled by An Garda Síochána.

Refer to Appendix E for a map showing the Outer Cordon Access Points.

3.3 Traffic Cordons

Traffic cordons have been identified to assist in the control of emergency services vehicles and private motor vehicles in the event of an incident at the terminal. The purpose of the traffic cordon is to ensure free passage of emergency response vehicles into and out of the site, to prevent unauthorised vehicles and to prevent congestion in the area.

Traffic cordons are managed by An Garda Síochána.

The main traffic cordon is similar to the outer cordon. However, it also includes the Bangor to Bellanaboy Road (L1204) (previously the Haulage Route) which provides access onto the Belmullet to Bangor Road (R313). This cordon requires that the junction at the Marian Shrine on the Bangor to Belmullet Road (L1204 with the R313) be manned by An Garda Síochána.

An alternative traffic cordon, if required, can be arranged along the Ballycastle to Belmullet Road (R314) leading east from the site through Glenamoy into Ballina (junction with the N59). This cordon would require the management of the junction with the R315 at Ballycastle, as well as other locations on the R314 and N59.

Traffic Cordons may be repositioned depending on the location, type and duration of the incident.

Refer to Appendix F for maps showing the locations of the Traffic Cordons and Access Control Points.

SECTION 4 SITE MANAGEMENT DETAILS

4.1 Danger Area

A Danger area may be defined as part of site management arrangements where there is a definite risk to rescue personnel, over and above that which would normally pertain at emergency operations. The danger area will reflect the type of incident and will be determined by the Controller of Operations of the lead agency (advised by the Rostered Senior Fire Officer / Fire Service Incident Commander). Due to the size of the terminal more than one danger area may be declared.

If a danger area is declared, an access point will be established to act as a safety checkpoint to monitor personnel within the area.

4.2 Casualty Clearing Station and Ambulance Loading Area

The casualty clearing station and ambulance loading area is located at the Administration Building (Canteen, First Aid Room).

If this building is not available, these areas may be relocated at an alternative suitable location such as the main gate or the designated holding area.

4.3 Helicopter Landing Site

A landing site will be considered based on suitability and availability, following consultation between the National Aeromedical Co-ordination Centre, the helicopter crew and the ground ambulance.

SECTION 5 ACCESS CONTROL

5.1 Access Control

Access control is managed by An Garda Síochána.

Refer to Appendix G for details of restrictions in the event traffic cordons are established.

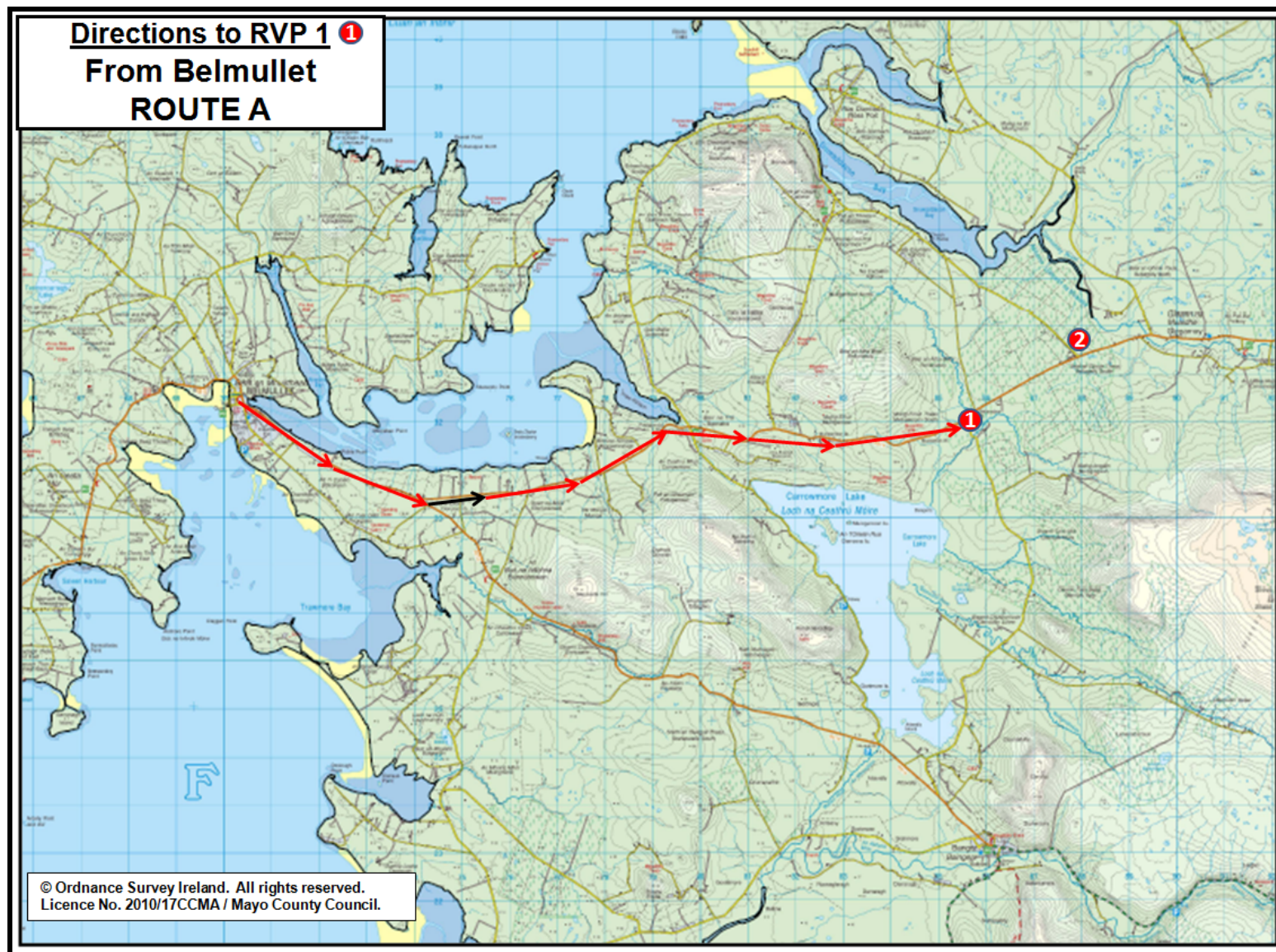
Local residents wishing to pass any manned An Garda Síochána access control point would be required to identify themselves prior to being permitted to pass through.

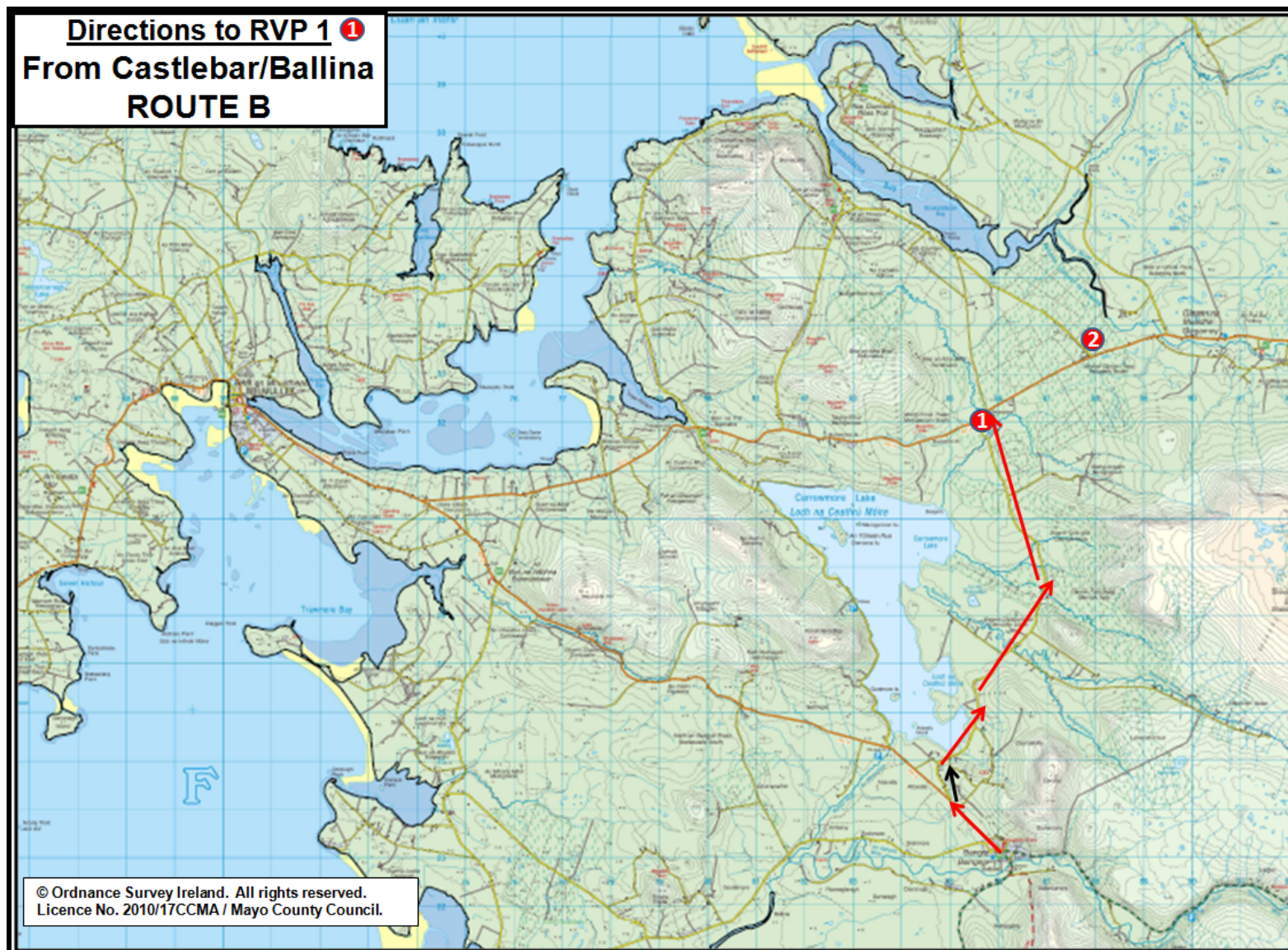
APPENDIX A LOCATION OF BELLANABOY BRIDGE GAS TERMINAL

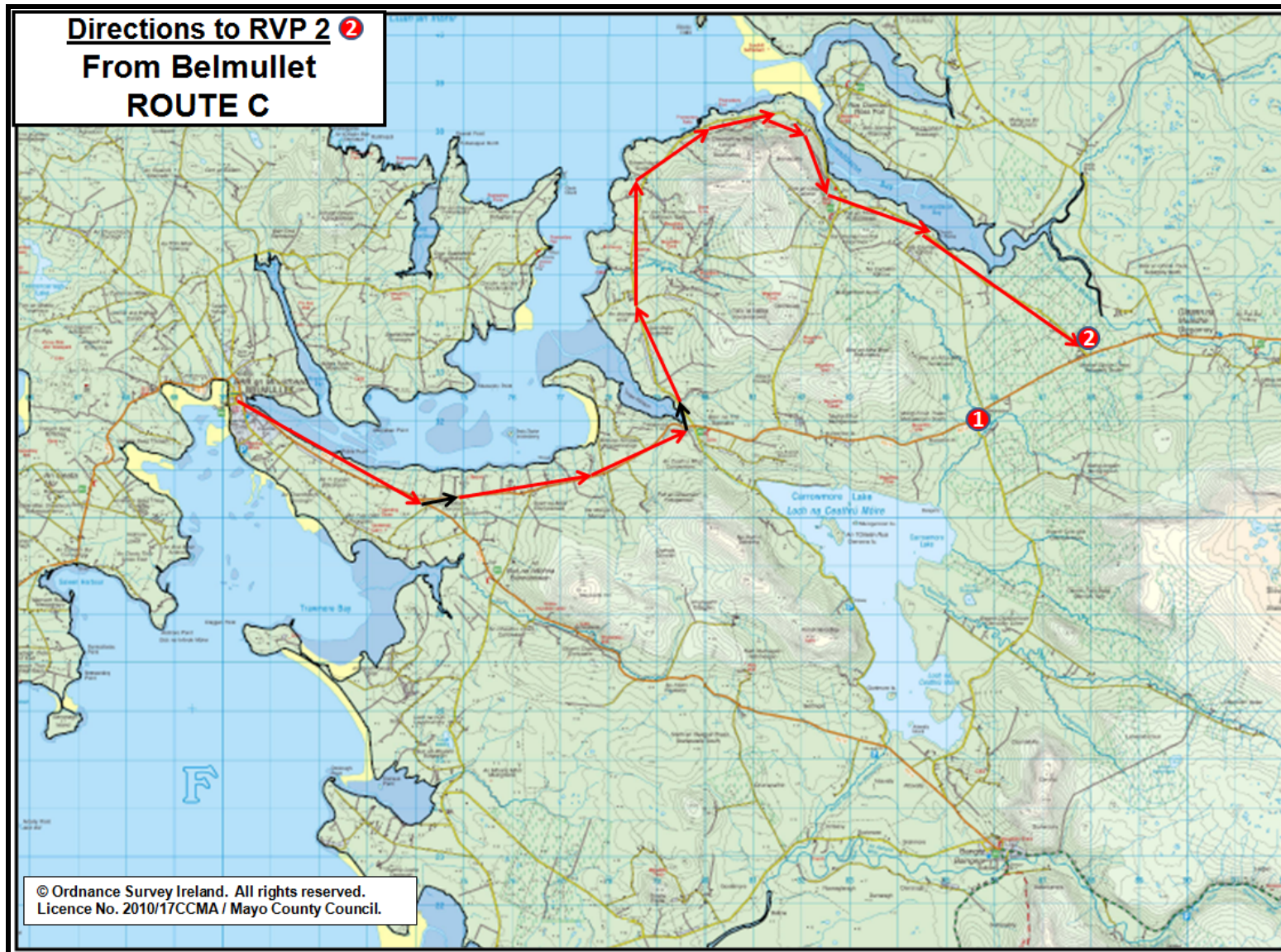


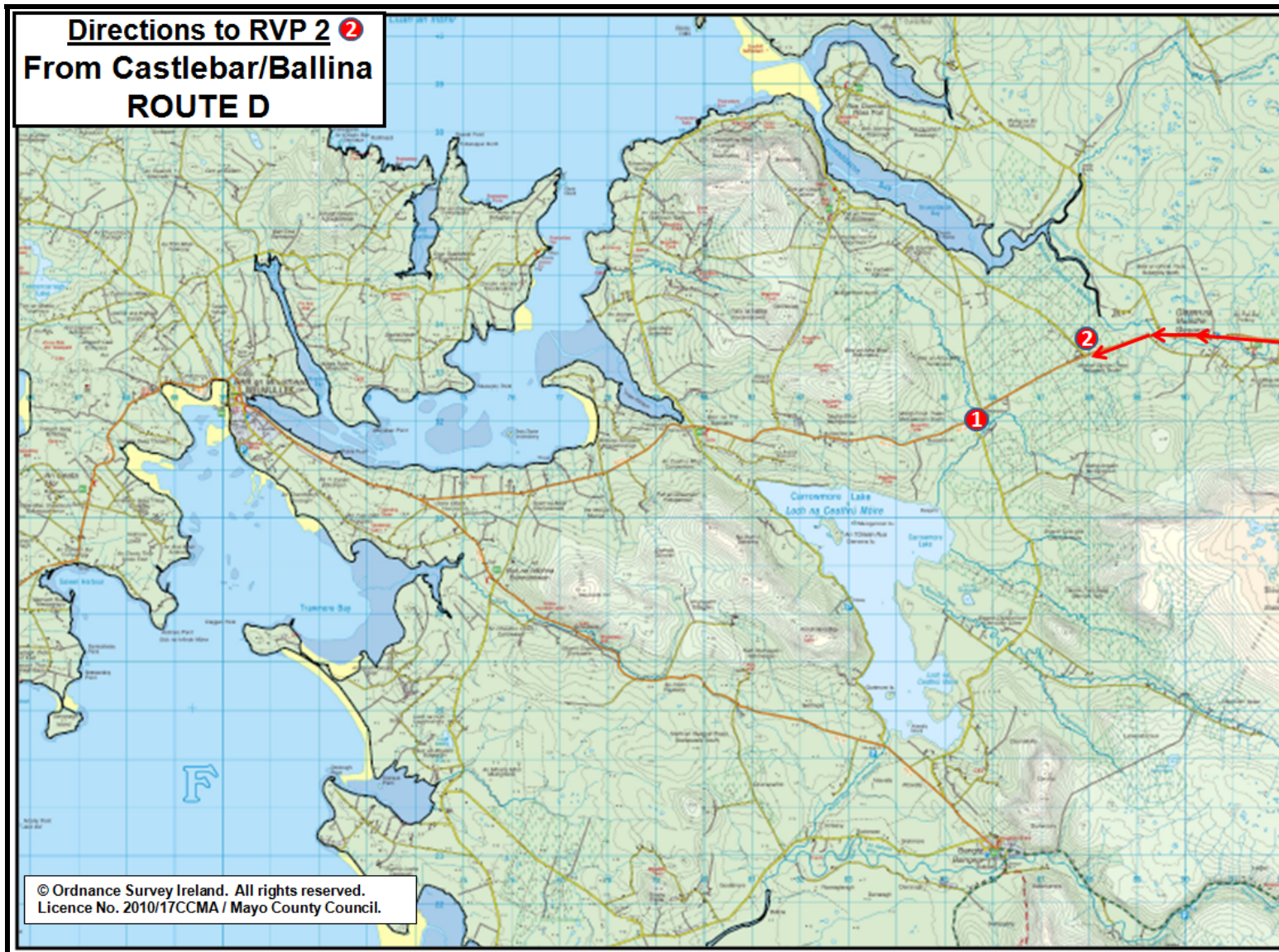
APPENDIX B ROUTE MAPS TO THE RENDEZVOUS POINTS











APPENDIX C DIRECTIONS TO THE RENDEZVOUS POINTS (RESPONDING PROTOCOLS)

RVP 1

Route A – From Belmullet



- From Belmullet, proceed 5.0 km East on R313 (Belmullet to Bangor Erris road) to junction with R314 Ballycastle road.



- Turn left (East) on R314 Ballycastle road. Proceed for 12.4 km, travelling through Barnatra.



- RVP 1 is located 6.1 km on the Ballycastle side of Barnatra. RVP 1 is located at the junction with the L1204 road.
- Vehicle should stand-by at Designated Holding Area, in a manner which does not cause obstruction to other emergency services access / egress to incident.
- This is RVP 1

RVP 1

Route B – From Castlebar/Ballina



- From Bangor Erris, proceed West on R313 (Belmullet road) for 1.6 km.



- At junction with L1204 (R314), sign posted for Gleann na Muaide / Ceide Fields, turn right.



- Proceed Northwards for 8.0 km to T-Junction (junction with R314, Barnatra – Glenamoy road)
- Proceed to the designated holding area as directed and stand by to await further instruction

RVP 1

Route B – From Castlebar/Ballina



- Vehicle should stand-by at Designated Holding Area, in a manner which does not cause obstruction to other emergency services access / egress to incident.



- This is RVP 1

RVP 2

Route C – From Belmullet



- From Belmullet, proceed east on R313 (Belmullet to Bangor Erris road) to junction with R314 Ballycastle road.



- Turn left (East) on R314 Ballycastle road.



- Proceed to Barnatra.

RVP 2

Route C – From Belmullet



- Turn left (North) at Barnatra and follow L1 202 for An Tinbhear (Inver).



- Continue on L1 202 for Belagally South, to junction with R314 Ballycastle – Belmullet road. **RVP 1 is located at this junction.**

Vehicle should stand-by at Designated Holding Area, in a manner which does not cause obstruction to other emergency services access / egress to incident.

RVP 2

Route D – From Castlebar/Ballina



- From Ballycastle, Proceed West along R314 Belmullet road.

- Continue on through Glenamoy



- Proceed past Glenamoy on R314 to junction with L1202 road (signposted for Pullathomas).



- RVP 1 is located at this junction.

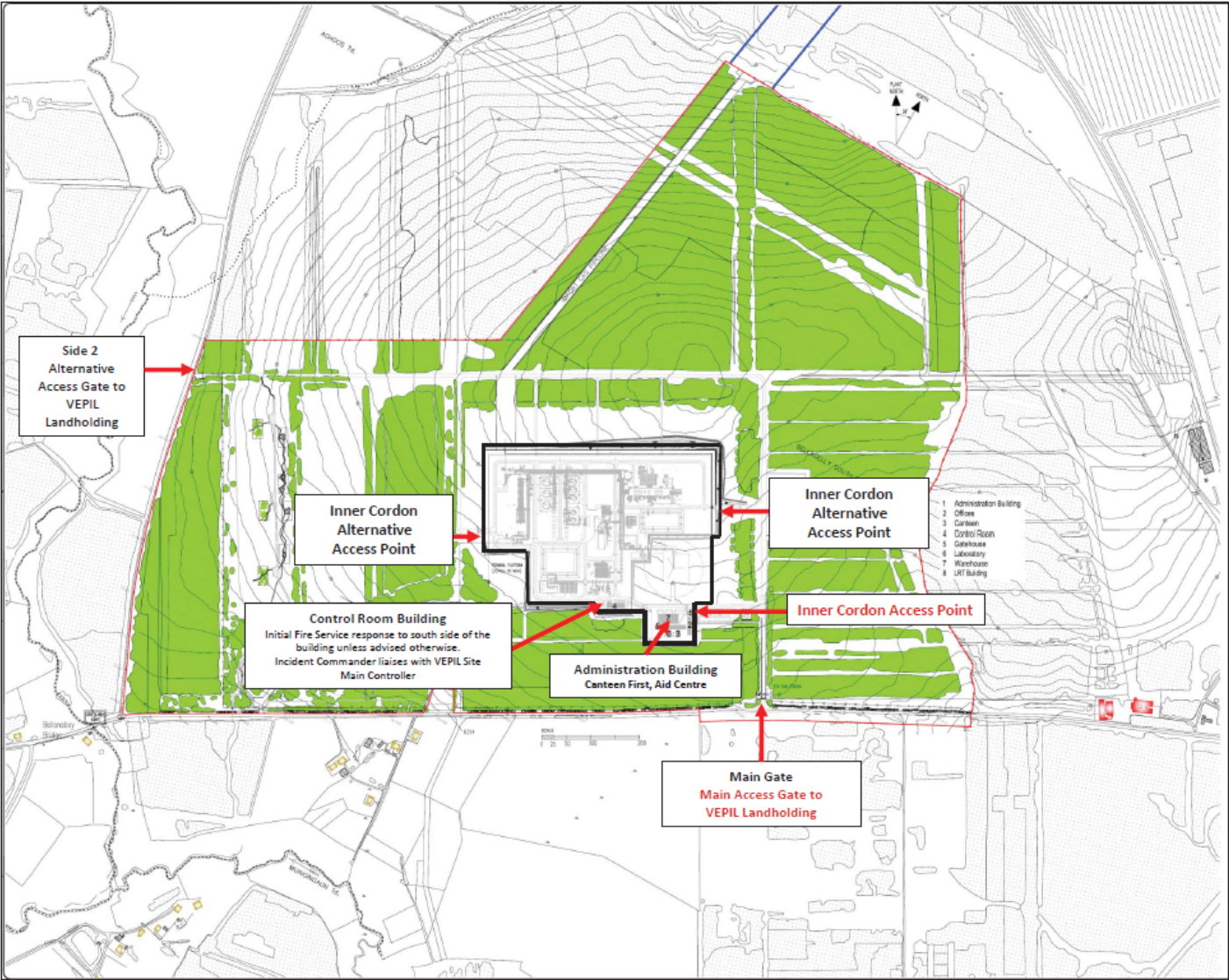
Vehicle should stand-by at Designated Holding Area, in a manner which does not cause obstruction to other emergency services access / egress to incident.



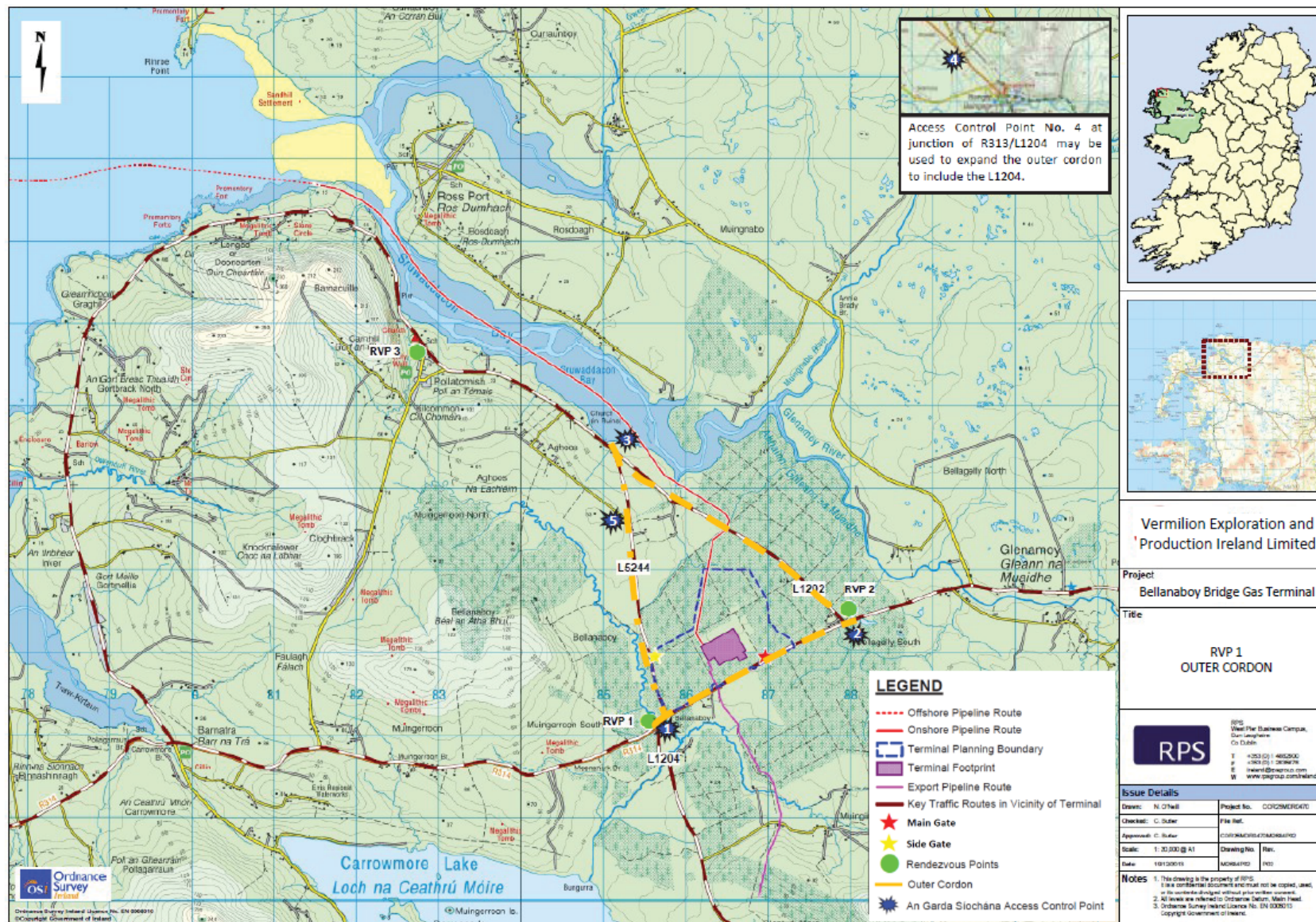
Emergency Services Arrival

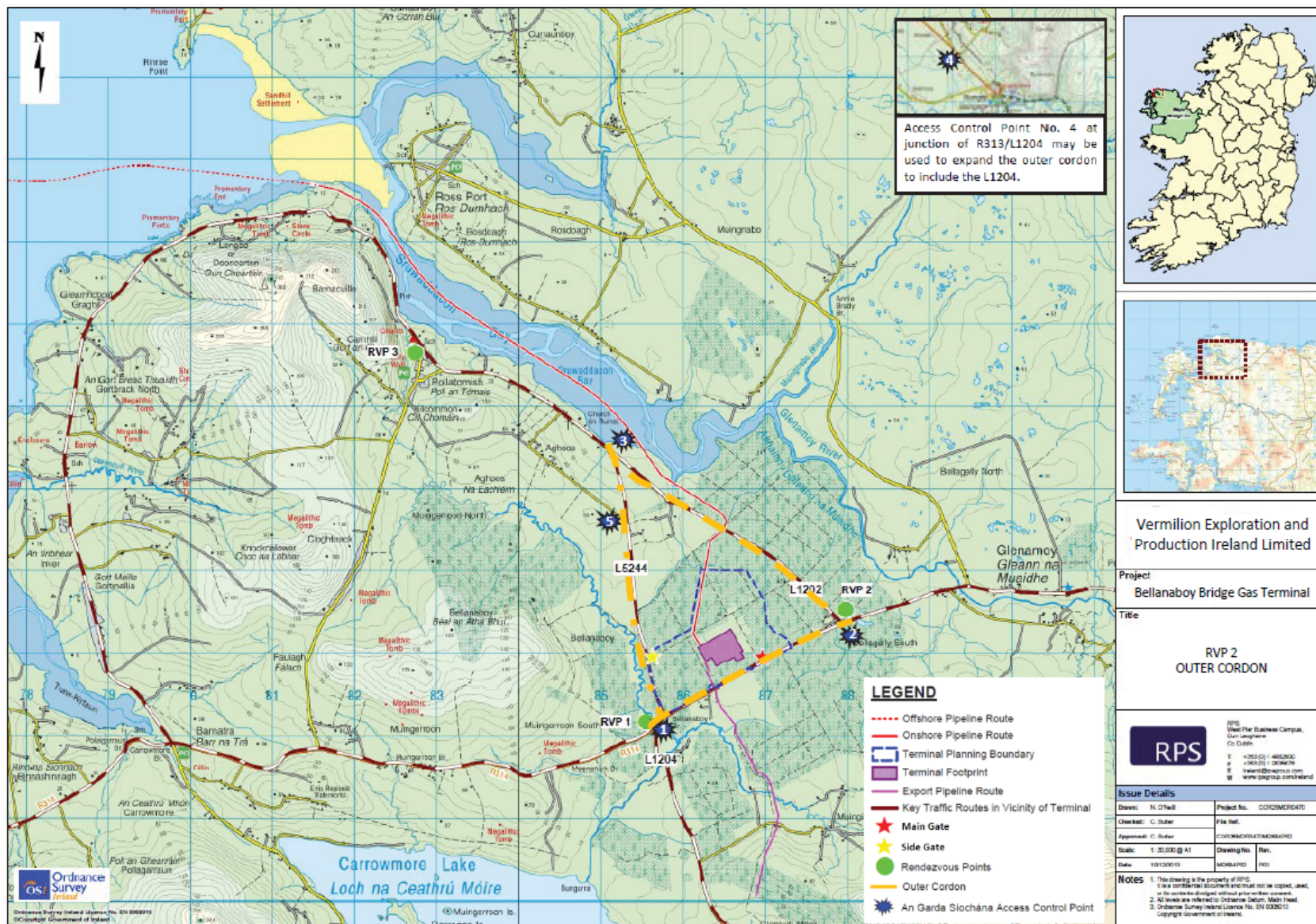
- When requested, proceed to the incident. The following rules apply
 - Drive at a safe speed, to the left hand side of the roadway.
 - Use dipped vehicle headlights at all times when driving within the Gas Terminal environs.
 - Use vehicle beacons at all times while driving within the Gas Terminal perimeter.
 - Give right of way to Ambulance Service vehicles which are exiting the incident scene with casualties.
 - Follow all instructions given by Gas Terminal Security personnel with regard to proceeding to the scene of the incident.

APPENDIX D INNER CORDON

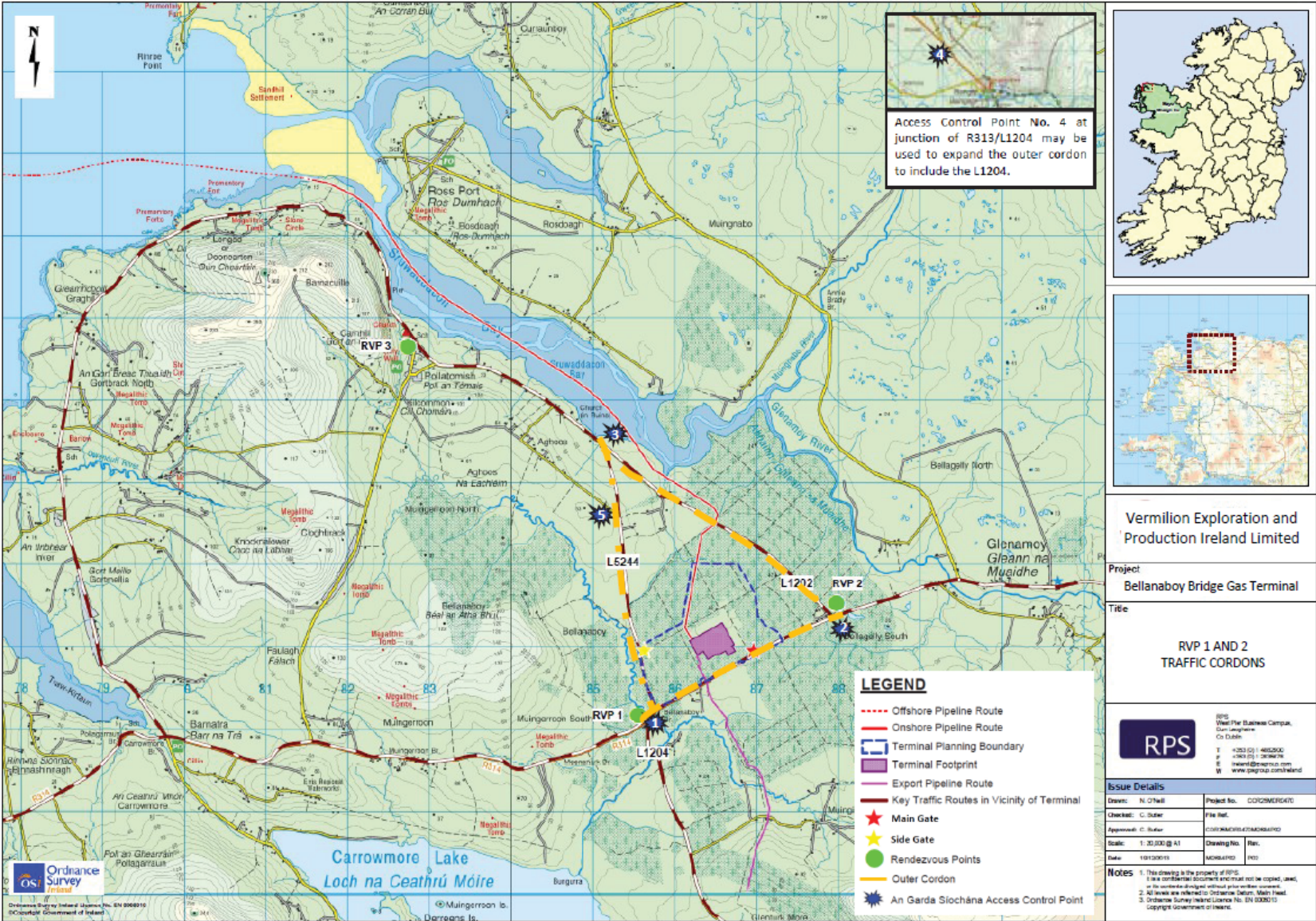


APPENDIX E OUTER CORDONS





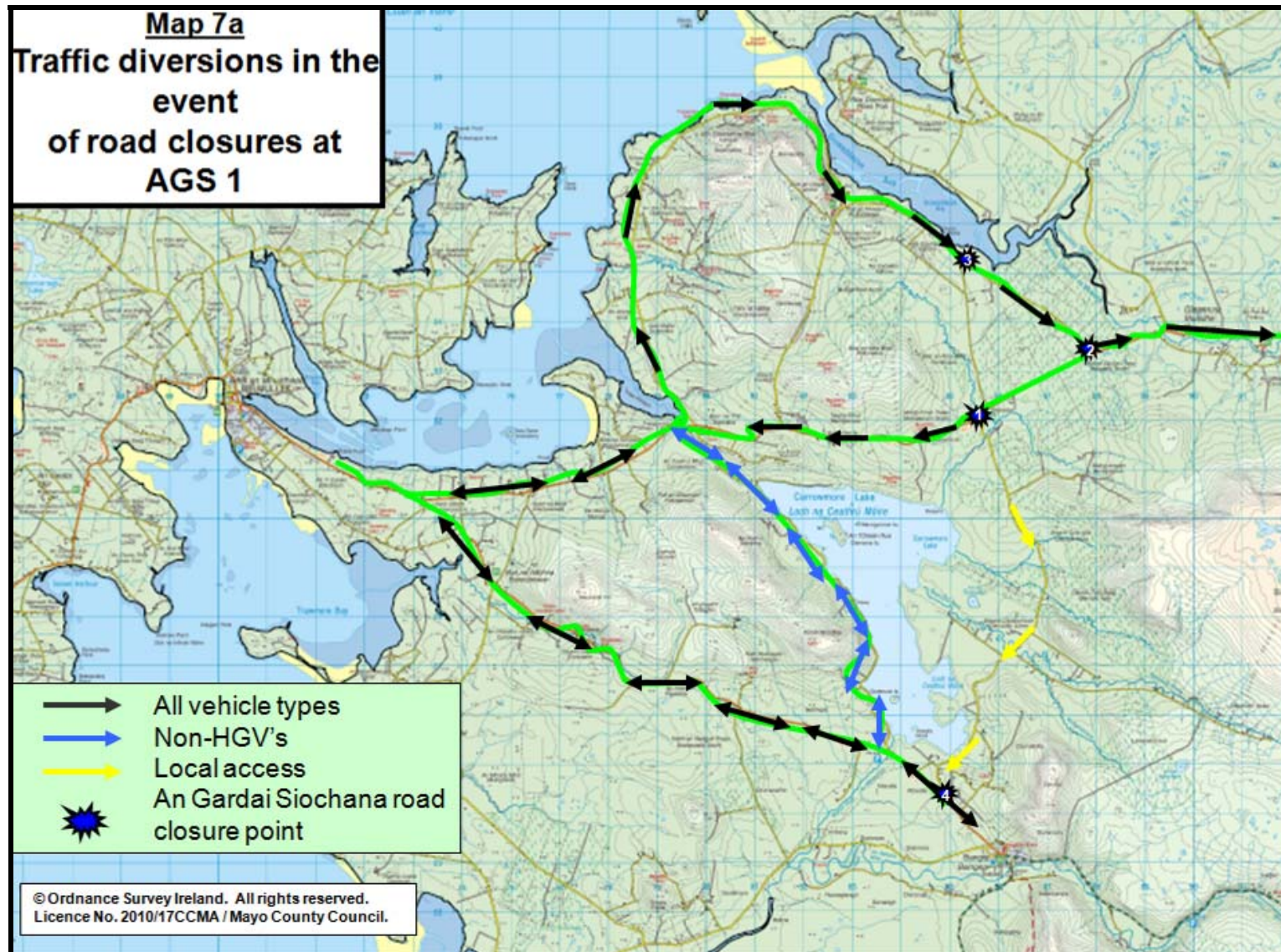
APPENDIX F TRAFFIC CORDONS AND AN GARDA SÍOCHÁNA ACCESS CONTROL POINTS

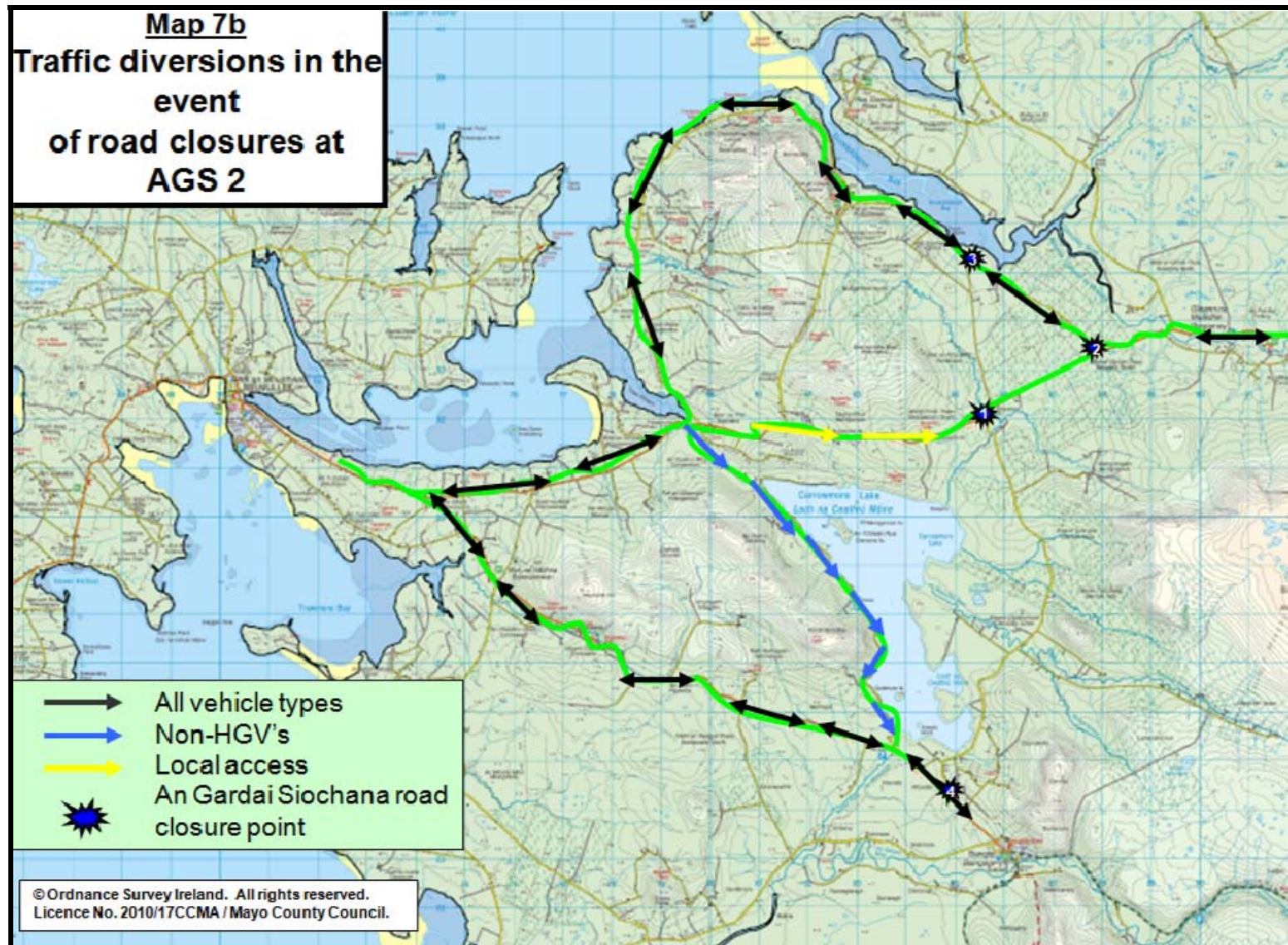


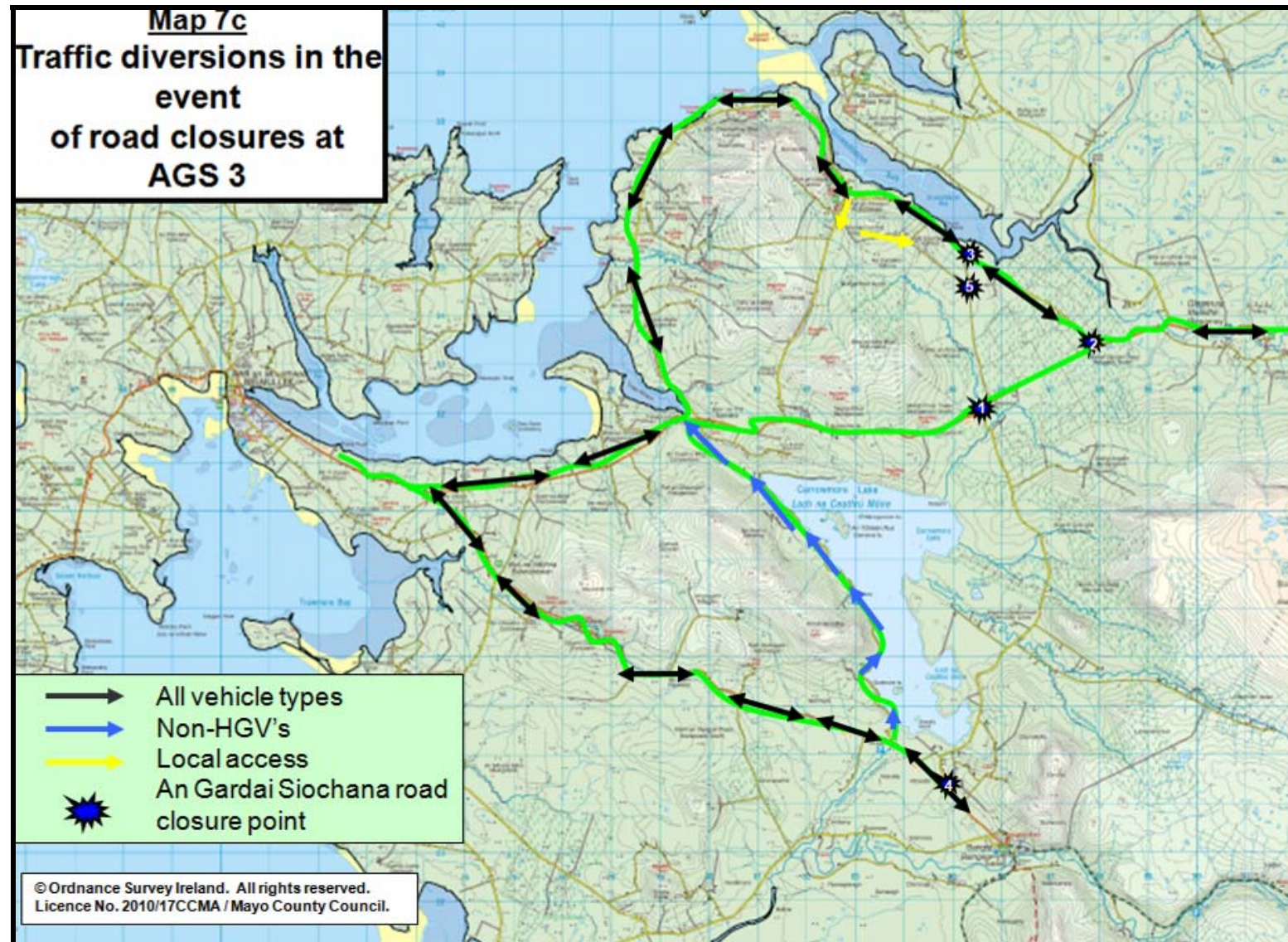


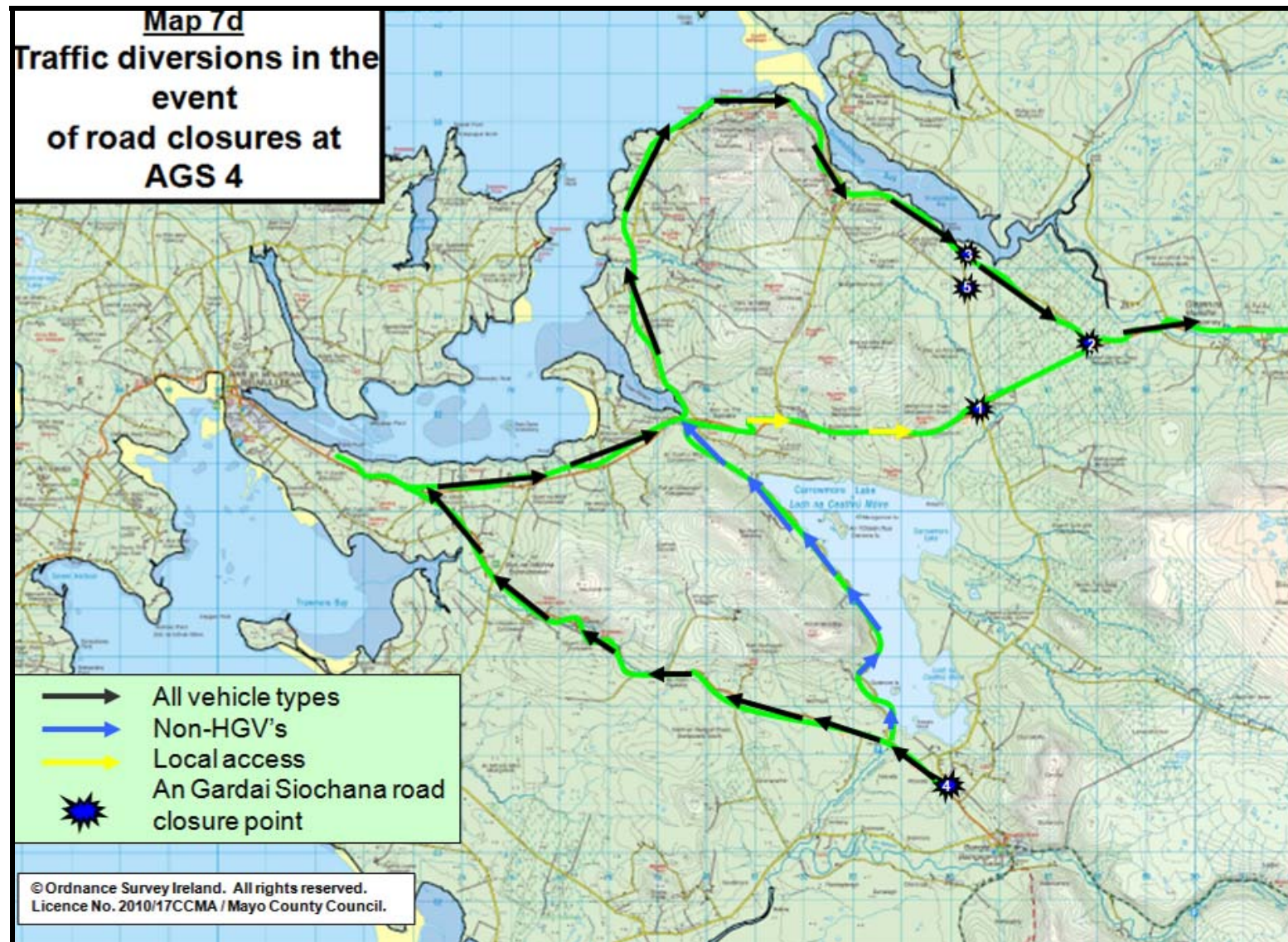
APPENDIX G ACCESS CONTROL

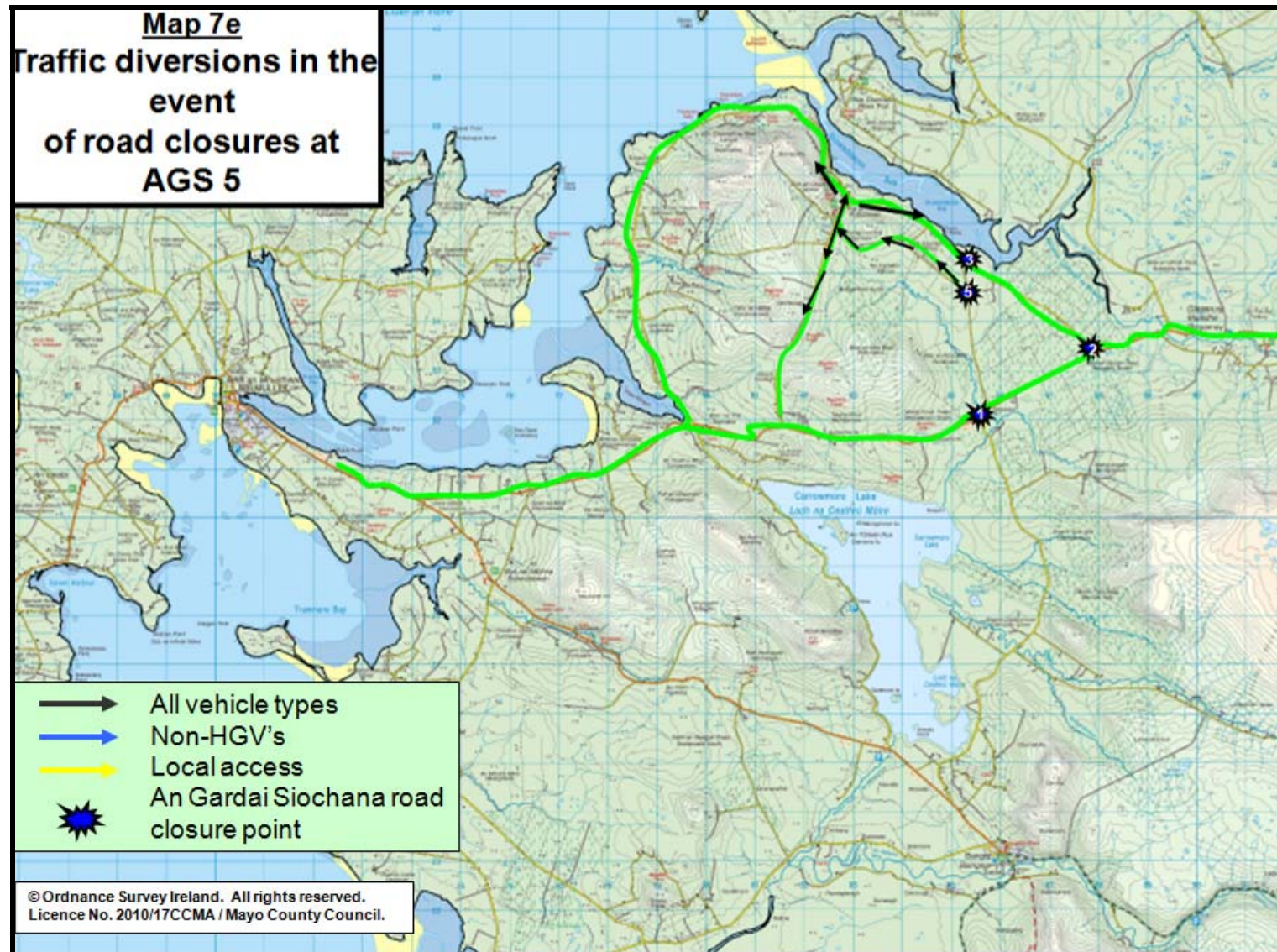












APPENDIX 4 SAMPLE MEDIA HOLDING STATEMENT

Sample Media Holding Statement

Refer to the Framework for Major Emergency Management Document 'A Guide to Working with the Media' and the Western Region Emergency Services 'Inter-Agency Public Communication Plan'.

Sample Media Holding Statement

Holding Statement

An incident (briefly describe (*fire / explosion*)) took place / is imminent at Bellanaboy Bridge Gas Terminal / Corrib Gas Terminal, Bellanaboy Bridge, Bellagelly South, Barnatra, Ballina, Co. Mayo at (time, day and date).

An External Emergency Plan for the establishment was activated and resources from Mayo Fire Service, the HSE and An Garda Síochána were called to the scene.

Currently there are (detail number and type of emergency response units) present at the scene.

At this early stage, all our energies are concentrated on bringing the situation under control.

The public should be aware the following information:

- (If relevant) Members of the public present in the vicinity (detail area) are advised to go indoors, close windows and remain indoors for now.
- Members of the public should not attend at the scene of the emergency.
- Access to the site is restricted. It is vital that all roads in the vicinity remain clear to allow emergency vehicles access to the site.
- Alternative routes and diversions are in operation and we would ask the public to observe and obey road signs in the vicinity and to listen to radio news bulletins for updates.
- Public transport routes are (affected / unaffected).
- Members of the media can contact (provide details).
- We are not in a position to comment on any medical details as yet and no interviews can be given at this time.
- Further updates will be made available as soon as possible.