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Oil Spill Contingency Plan (OSCP) – Tier 4

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1 PURPOSE

The purpose of this plan is to build an overall system of preparedness and operational response capabilities for a release of hydrocarbons in the Mediterranean Sea from Leviathan Production Platform (LPP) jacket/topsides installation, commissioning process and Leviathan field subsea work.

2 SCOPE

Noble Energy Mediterranean Limited (NEML) will mobilize the constructed LPP jacket to the permitted installation location and conduct assembly of the unit. This plan focuses on the preparedness and operational response capabilities in the event of an incident of a hydrocarbon sea surface during the jacket/topsides installation, platform commissioning process or subsea installation work.

This Oil Spill Contingency Plan (OSCP) while applicable to the installation activity specifically, will for response purposes focus on the largest determined Worst-Case Discharge (WCD) of a vessel during installation and/or commissioning operations. It is intended to identify the levels of risk, operational capabilities and objectives, resource requirements, roles and responsibilities, and reporting procedures for a release as a result of installation activities.

The OSCP defines NEML's actions for responding to a release of liquid hydrocarbons from an offshore source to ensure compliance with Israel's National Preparedness and Response Plan for Incidents of Sea Pollution by Oil. This plan encompasses all NEML activities in the LPP offshore area of Israel associated with the installation and commissioning work before first gas of the Leviathan field. This OSCP has been developed using the following guidance documents, plans, and protocols:

- Guidance for the Preparation of an Emergency Factory Plan for the Treatment of Incidents of Sea Pollution by Oil for Entities Exploring for and Producing Gas and Oil at Sea.
- National Preparedness and Response Plan for Incidents of Sea Pollution by Oil (National Plan).
- The Protocol of the Barcelona Convention Concerning the Protection of the Mediterranean Sea Against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, 1994 (Barcelona Convention).
- The Protocol Concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Case of Emergency, 1976 (Superseded by the Emergency Protocol).
- The Protocol Concerning Cooperation in Preventing Pollution from Ships, and in Cases of Emergency, Combating Pollution of the Mediterranean Sea, 2002 (Prevention and Emergency Protocol).

3 EHS MANAGEMENT SYSTEM APPLICABILITY

The implementation of this Plan conforms to the following Noble Energy Inc.'s (NEI) Global Environmental, Health, and Safety (EHS) Management System (GMS) elements:

- Element 3 – Safe Work Practices; and
- Element 5 – Emergency Preparedness

This plan also complies with 30 CFR 250 Subpart S Safety and Environmental Management System (SEMS) element:

- Element 10 - Emergency Response and Control.

4 ADMINISTRATION

4.1 PLAN DEVELOPMENT

This plan was developed by a team of major project engineers, environmental, safety specialists and emergency management personnel from NEI with assistance from external subject matter experts in oil spill response operations.

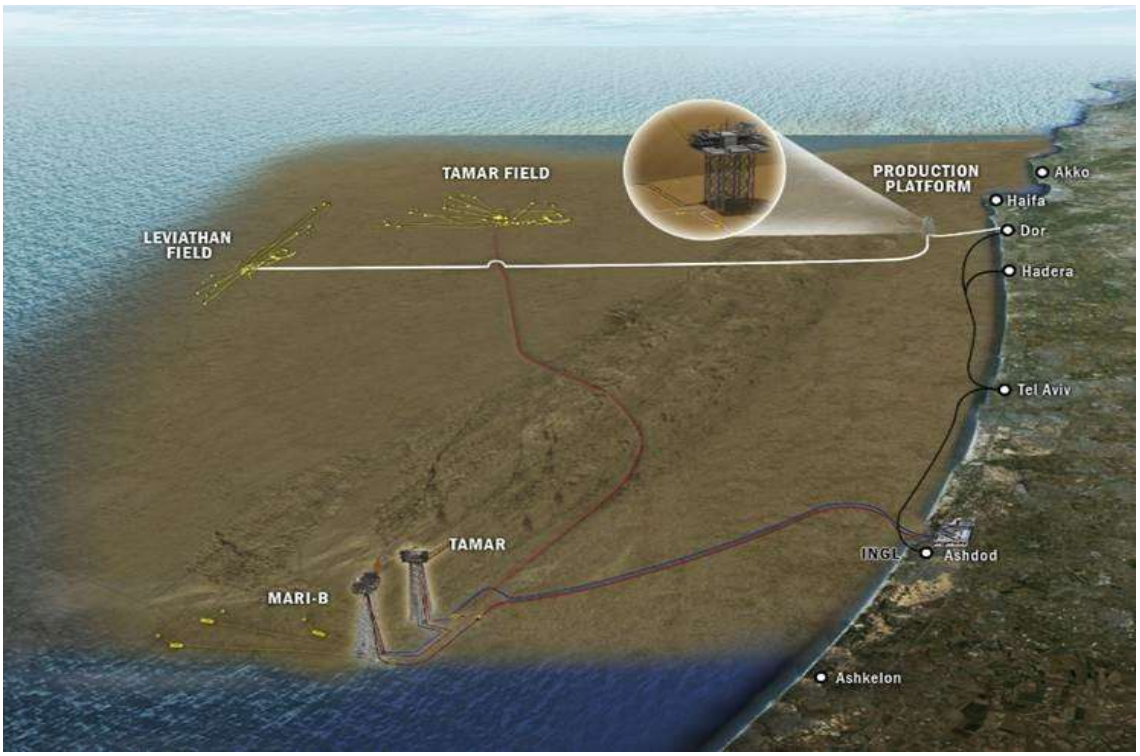


Figure 1: Illustration of the Leviathan project layout.

4.2 RISK MANAGEMENT

Potential release scenarios have been identified from information in the operational overview, and input from the Ministry of Environmental Protection officials. Understanding the overall risk require these scenarios to be defined in terms of the likelihood of occurrence and potential consequences. The likelihood of each scenario has been qualitatively estimated based on industry data and experience and is listed in Appendix 4 - Risk Considerations. The potential consequence has been predicted based on the sensitivities at risk as described below. Those scenarios deemed to be "worst case" have been modeled to gain an understanding of trajectory.

4.3 CLASSIFICATION OF INCIDENTS

All incidents share a general list of priorities to be taken into account for response actions. General emergency management practices and the Incident Command System (ICS) provide guidelines which have been harmonized with NEI established corporate priorities. A comparison of those prioritizations is shown in the table below*:

4.3.1 TIER 1 – MINOR INCIDENT

A minor incident is one which may be managed by the facility or vessel, or requires response from a limited number of personnel to provide technical advice and support. Notifications shall be made to all relevant agencies and designated internal contacts in accordance with the NEML Incident Reporting Procedures. Mobilization of the Incident Management Team (IMT) may not be required at this level.

4.3.2 TIER 2 – SERIOUS INCIDENT

A serious incident is one which affects the safety of the installation, vessel, or facility and its associated equipment, personnel, and/or the environment. This incident type requires mobilization of the IMT and may require integration of external agencies into the response organization. Contractors may also mobilize their internal response teams and liaise with the IMT via a contractor liaison.

4.3.3 TIER 3 – MAJOR INCIDENT

A major incident is one which affects the safety of the facility and/or construction vessels, the associated equipment, personnel, and/or the environment, which, in addition to the IMT, requires mobilization of additional contracted response resources and the Corporate Support Team (CST), as well as integration with external agencies.

4.4 REVIEW

This plan shall be reviewed upon project startup, and if changes occur that affect the project scope or the Business Units ability to respond. The review process will be managed by Global Emergency Management and will include leadership of the Israel Operational Area (OA) and relevant stakeholders.

*(*Note: Prioritizations and tiered levels represented industry/company terms and definitions. As such, they are different from those specified within the TALMAT).*

4.5 APPROVAL

Upon determination that the plan accurately reflects the OA's operational expectations for oil spill response, the plan will be approved by the Leviathan Asset Manager.

4.6 IMPLEMENTATION

Upon approval of the plan, the leadership of the OA will be responsible for implementing the plan, in whole or in part, based on the emergency situation and available resources. International Emergency Management will provide direct support to the OA and will facilitate reviews, approval, and exercising of the plan.

5 CONCEPT OF OPERATIONS

5.1 SITUATION

- Worst Case Discharge (WCD) for this plan will consist of largest known storage single tank volume that have catastrophically been released outside of secondary containment from an installation or support vessel (typically supply or work boat). Most likely this event is due to a ship Allision or collision resulting in a hydrocarbon or similar stored liquid release.
- A Net Environmental Benefit Analysis will be conducted to understand which tactic is most appropriate for the specific release scenario.
- The State of Israel affirms the use of dispersants as a primary tactic for oil releases on water. They establish a restriction zone of 0.5 nm from shore and 20 meter water depth. Maritime reserves and offshore fish farms have a restriction of 1nm.
- During an incident, modeling of these scenarios is conducted by a qualified Oil Spill Modeling specialist and is based on accepted industry standards.

5.2 ASSUMPTIONS

- The general characteristics of the product associated with NEML operations favors dispersant over recovery. NEML's strategy will depend on many factors that will be situation dependent. In general, hydrocarbon release response strategies may include the following:
  - Natural Evaporation
  - Dispersant Application
  - Mechanical Agitation
  - Mechanical Recovery
  - Shoreline Protection
  - Shoreline Cleanup/Recover
  - Rehabilitation
- Should multiple strategies be implemented, they may occur simultaneously. Thus, Simultaneous Operations (SIMOPS) becomes a critical factor in responding to a release.

5.3 PROJECT SECTION SPECIFICS

The project is separated into two sections, referring to the initial jacket installation which is followed by the commissioning of the installation for production.

5.3.1 SECTION A – PLATFORM JACKET AND TOPSIDES INSTALLATION

Primary activities for this section focus on installation of the platform jacket into the bedrock in advance of the topside placement of the various platform decks. Both activities will be conducted within a reservoir hydrocarbon free environment. This means there will be no storage or flow of Leviathan gas or condensate during this period.

5.3.2 SECTION B – PLATFORM COMMISSIONING

Following the successful construction of the platform, the installation must conduct an extensive commissioning phase. This includes fabrication, testing and certifying all of the installation components are ready for first gas. This plan covers the activity during commissioning during a reservoir hydrocarbon free environment.

The construction sequence is as follows: jacket installation (Q1/19), subsea installation & pre-commissioning (Q1/19 to Q2/19), topsides installation (Q3/19). Final commissioning of the system will take only place after the subsea and topsides installation.

5.4 RELEASE SCENARIOS

Statistically, the most common releases are small incidents associated with day to day operations, such as those occurring during routine maintenance and fuel transfers. However, in terms of assessing risks to the environment, it is important to consider potential releases that have a low probability of occurring, but a high potential impact, such as the release of the largest liquid storage unit aboard a single vessel.

The potential release scenarios for installation operations are summarized in the tables located in Appendix 4 Risk Considerations. These scenarios and release volumes represent a broad cross section of possible release scenarios.

As a result of prevention and preparedness activities such as training, establishment of standard operating procedures and engineering solutions, successful identification and mitigation of unlikely releases will be effectively managed.

The following are potential scenarios for a release of produced hydrocarbons from NEML offshore installation activities. These scenarios entail risks to the environment due to the released volume as well as the distance from the shore (approx. 10 km).

5.4.1 OPERATIONAL FAILURE

Operational failure includes occurrences such as the discharge of hydraulic, hydrocarbons or tank/container overflows. The most likely operational failure associated with NEML installation operations is a small release during bunkering or fuel transfer operations. The volume of such a release is dependent on the specifics of the failure, but is typically a small, fixed amount following an instantaneous release.

5.4.2 EQUIPMENT FAILURE

This includes instances such as the rupture of process piping, process equipment, onboard the sea craft. The volume of this type of release will not exceed the volume of the vessel or line that has failed and is released nearly instantaneously.

5.4.3 SHIP ALLISON/COLLISION

Such an incident constitutes the extreme scenario as the likelihood is small and the communication and navigation systems in place to prevent them. The volume of such a release is dependent on the total volume of the vessels storage container/tank.

5.5 RELEASE SCENARIO PREPAREDNESS

NEML has a tier one level Oil Spill Response (OSR) capability to enable a rapid response to an oil on water incident. This Tier 1 capability consists of vessels and equipment that are staged at the Ashdod port. Additional equipment is also available for use in Haifa and Hadera, in the unlikely event of fuel release to water incident. In addition, for releases that occur within the confines of the vessel, the vessel SOPEP identifies the equipment, responsibilities and response effort for a shipboard release.

The current scope of the project shows vessel refueling operations will be conducted from Cyprus and limited, if at all, fueling from the Israel ports. As such, NEML has taken the following preparedness measures for response to the potential release scenarios listed above:

5.5.1 Operational Failure

These failures usually result in small releases of marine fuel oil which typically require only monitoring and reporting. Preparations are included in this plan for proper reporting of a hydrocarbon release to water scenario. Depending on the location and volume of material released, an expedited response from our oil spill response contractor and approval for the use of dispersant use is an important factor in the initial stages of a successful response.

5.5.2 Equipment Failure

Equipment failures usually result in small releases of marine fuel oil which require only monitoring and reporting. Preparations are included in this plan for reporting and in training of personnel. An expedited response from our oil spill response contractor will be important in responding properly to this type of incident. Approved use of dispersant may also be potential tactic for consideration.

5.5.3 Ship Allision/Collision

A ship Allision/collision is a significant incident which may endanger lives and result in an environmental pollution incident. Depending on the amount of fuel released, the use of additional Tier 2 and/or Tier 3 response resources may be assessed. For response to incidents requiring resources above and beyond that the contractor provided Tier 1 package, NEML has contracts with Oil Spill Response Ltd. (OSRL) and National Response Corporation (NRC) for Tier 2 and 3 resources. These resources are globally positioned in a state of readiness for deployment in order to facilitate a rapid response to a release anywhere in the world. NEML also has contracts in place with contact Subject Matter Experts (SME's) to augment the NEML Spill Management Team (SMT).

5.6 Response Procedures

The main objective in responding to an offshore release is to minimize impact by removing as much product from the surface of the water as quickly as possible. This will result in:

- Reducing public contact with product in the near-shore and onshore areas,
- Reducing the presence of VOCs in the environment,
- Reducing shoreline and near-shore environmental and economic impacts, and
- Reducing wildlife impact.

The handling of incidents resulting from a release include defining roles and responsibilities, operative work procedures, and methods of treatment for both onshore and offshore, and methods of waste management.

For planning purposes, the approximate response for an LPP fuel on water release is targeted at eight hours for initial resources to arrive on location and twelve hours for supplementary resources. A release within this section of work could activate the full Tier 1 resources located in country. Additionally, a planning scenario will be used to identify Tier 2/3 resource targets if appropriate.

Due to the nature of the operations, a series of model simulations has been conducted to assess the potential dispersion of a nearly instantaneous discharge of marine gas oil (MGO) and/or heavy fuel oil (HFO) from a vessel collision/allision near the LPP. The discharge volumes account for the

worst-case discharge scenario depicted in appendix 6. According to the results of the shortest beaching simulation, the location of the slick after 8 hours from the initial release is predicted to be around 6 km off the nearest coastline, at a water depth of approximately 52 m.

5.6.1 IMMEDIATE RESPONSE (Identification of Incident +0 hours)

- Any person observing or becoming aware of a release of any size must immediately report the incident to the Person in Charge (PIC) of the vessel. The vessel PIC will immediately report all releases (known or unknown source) to the Operations Support Center (OSC).
- Field personnel will take immediate actions that may include the following:
  - Stop the discharge, if capable and safe to do so.
  - Assess the possible hazards:
    - Fire and explosion potential of vapors at or near the source.
    - Type of liquid discharged overboard.
    - Damage to facility affecting safety.
  - Protect personnel by:
    - Sounding alarm.
    - Shutting off ignition sources.
    - Restricting access.
    - Evacuate as necessary.
    - Initiate rescue and response actions.
- Notify and place Tier 1 contractor(s) on standby.
- Vessels operating with an International Maritime Organization (IMO) required Shipboard Oil Pollution Emergency Plan (SOPEP) and train their crew to observe and report suspected oil sheens on the water. The SOPEP response measures may be utilized for onboard release operations only.
- OSC will attempt to gather the following information
  - Type of hydrocarbon released, if able
  - Release duration (ongoing vs instantaneous)
  - Location, amount and approximate time of release
  - Weather, current and wind conditions
  - Contact information of reporting party
  - Any immediate action done as known by the reporting party
- Notification to the Ministry of Environmental Protection will occur

5.6.2 INTERMEDIATE RESPONSE (Incident Notification +4 hours)

- OSC will notify the MoEP and the MoE.
- The Incident Commander (IC) will obtain information regarding the incident from field personnel and assemble required members of the IMT. The Section Chiefs will notify and brief personnel in their Section to initiate immediate response actions.
- NEML will rely on the initial reports to provide initial trajectory locations for further oil observation analysis.
- Upon validation of the required information, an application for the use of dispersants should be submitted to the MoEP.
- Initial aircraft observation, if possible, should be conducted by NEML trained personnel.
  - Obtain surveillance to determine:
    - Type of fuel oil released.
    - Size of slick.

- Description of slick.
- Location of leading and trailing edge of slick, if possible
- Direction of movement.
- Threat to personnel, sensitive areas, and/or coastline.
- Wildlife spotted in the area.

– Other items for consideration
- Weather around slick/discharge/source control area
- Time of day (daytime vs nighttime)
- Nearby vessels sensitive areas/vessel traffic lanes

- Develop a response strategy based on surveillance data and information from the notifying PIC.
- Conduct Net Environmental Benefit Analysis (NEBA) to help determine appropriate tactic.
- Notify Tier 1 vessels to outfit accordingly.
- In the specific case of construction activities near the LPP location, involving the Heavy Lift vessels (Thialf and Sleipner), a dedicated vessel will stand-by in Hadera Port. In the event of a release, the NEML Tier-1 initial response dedicated vessel will arrive to the location of the slick and commence the response operations. Time frame to reach LPP location from the Hadera port shall be up to 4 hours.

5.6.3 OPERATIONAL RESPONSE (Incident Notification +8 hours)

- The tier 1 initial response has arrived at the location of the slick and activated the cleanup operations (i.e. containment, recovery or dispersant).

5.6.4 SUPPLEMENTARY OPERATIONAL RESPONSE (Incident Identification + 12 hours)

Based on the nature of the incident, the NEML main Tier-1 response has been activated and implemented situational tactic (i.e. containment, recovery or dispersant) operations at the location of the slick. Additionally, an assessment by the Incident Management Team for additional resources may be activated to support response actions.

5.7 RESPONSE OPTIONS

A release of hydrocarbon into the water may will invoke a quick response from business unit personnel, as already discussed. Many factors will contribute to the determination of the recommended tactic for on water/shore activity. Some of variables that the Incident Commander and Environmental Unit Leader must factor are:

- Time of day of the release and/or response
- Volume of material released
- Current and projected sea state
- Proximity to protected or sensitive environments
- Wind/current direction and
- Amount of weathering

The main objective in responding to an offshore release is to minimize impact by removing as much product from the surface of the water as quickly as possible. This will result in:

- Reducing public contact with product in the near-shore and onshore areas,
- Reducing the presence of VOCs in the environment,
- Reducing shoreline and near-shore environmental and economic impacts, and
- Reducing wildlife impact.

5.7.1 BIODEGRADATION

Marine Gas Oil (Diesel) is the primary fuel oil for the project vessels in and around the LPP location. Diesel releases to water show a high degree of natural evaporation without response intervention. A spontaneous release to water would produce a very thin (<.1mm potential) surface sheen with a high Volatile Organic Compound (VOC) potential.

Generally speaking, marine environments that are impacted with a high level of vessel activity on average show a higher concentration of natural microbes (bacteria, microbes, fungi, single-cell algae and protozoa) that conduct the biodegradation of oil entering their environment. Nevertheless, there is no certainty that such high concentration of oleophilic microbes actually exist in the specific location of the release.

This option should be considered when the amount release is small in size (<100 bbls) or for shoreline cleanup operations.
Benefits of natural evaporation are:

- No VOC exposure to responders
- Naturally occurring Oleophilic microbes are able to work optimally
- Reduces the amount of MGO potential from entering the water column

5.7.2 DISPERSANT APPLICATION

During response to a release, it is essential to establish clear objectives and focus response actions accordingly. This section describes the benefits of using dispersants and provides objectives that are applicable to most scenarios. Dispersants may be applied utilizing sub-surface, surface, and/or aerial application methods.

Application of dispersants provides the following benefits in meeting the below objectives:

- Apply dispersants to large slicks.
- Treat thousands of barrels of product per day.
- Reduce shoreline and wildlife impacts by transferring the product from surface waters into the water column more quickly and quicken biodegradation by naturally occurring micro-organisms.
- Operate effectively over a much wider range of wind and wave conditions than mechanical recovery.
- Responds as a self-contained, all inclusive, dedicated operational unit of equipment and personnel that have been trained and exercised together.
- Can be easily monitored for effectiveness.

The application of chemical dispersants is part of an overall comprehensive strategy to a major oil spill. All of these response techniques will be considered for use in compliance with Israeli Government and MoEP Standards taking into account previously identified cultural or environmentally sensitive areas near the coastline.

In general, the viscosity of spilled oil changes with time as it 'weathers', influencing the potential effectiveness of dispersants when encountering surface oil. As the viscosity of floating oil increases with time, the probable effectiveness of dispersant use may decline. This 'window of opportunity' for effective use of dispersants 'opens' when the oil hits the water and starts to 'close' as the oil weathers. The 'window of opportunity' can vary with oil type and prevailing conditions. In the event of a spill, the impact of the actual weather conditions on the 'window of opportunity' will also be considered.

Dispersants reduce the oil/water interfacial tension, making it easier for waves to break oil into larger number of smaller particles. Chemical dispersants also, prevent dispersed particles from recoalescing and forming bigger, more buoyant droplets that float to the surface, re-creating sheens. Depending on the wave activate additional agitation (usually by propeller prop wash) is needed to help achieve optimal dispersion. This helps effectively diminish oil from spreading or weathering.

Some dispersants are applied with a dilution concentration. For example, Sea Brat #4 is applied using 1 part Sea Brat #4 to 9 parts water for a 10 percent solution. This effectively increases amount of dispersant available to ten times the amount of the stored quantity. Other dispersants are applied directly to water without dilution.

Special Monitoring of Applied Response Technologies (SMART) protocol for monitoring alternative operational strategies or tactics, including the application of dispersants, will be conducted to measure efficacy and/or to monitor any potential health and safety impacts to the public or environment.

The IMT may set the following response objectives for surface dispersant operations:

- Activate sufficient dispersant assets.
- Thoroughly document response activities.
- Assess dispersant effectiveness and environmental impacts.
- Effectively communicate dispersant risks and information.

5.7.3 DISPERSANT CAPABILITIES

The dispersant capabilities listed in the table below reflect the Tier 1 capabilities maintained by NEML in country as well as the Tier 2/3 capabilities NEML maintains via membership in OSRL:

Aircraft/Vessel Staging Base	Payload (gallons / liters)	Estimated Dispersant Capability* (gallons/liters)				Estimated Amount of Oil Treated (barrels/m³)			
		DY1	DY2	DY3	Total	DY1	DY2	DY3	Total
OSRL									
C-130 with ADDS (Singapore)	3,434 / 13,000	---	6,868 / 26,000	6,868 / 26,000	13,736 / 52,000	---	4763 / 757 m³	4763 / 757m³	9526 / 1,514m³
B-727 NIMBUS (Doncaster, UK)	4,094 / 15,500	—	8,188 / 31,000	8,188 / 31,000	16,376 / 62,000	---	5,667 / 900 m³	11,334 / 1,800 m³	17,001 / 2,700 m³
Noble Energy Mediterranean, Ltd.									
Tosca 1 (In country)	1,585 / 6,000 L	1,585 / 6,000 L	1,585 / 6,000 L	1,585 / 6,000 L	4,755 / 18,000 L	889/ 141 m³	889/ 141 m³	889 / 141 m³	2,667/ 423 m³
Danchor IV* (In country)	1,585 / 6,000 L	1,585 / 6,000 L	1,585 / 6,000 L	1,585 / 6,000 L	4,755 / 18,000 L	-----	889/ 141 m³	889 / 141 m³	1,778/ 282 m³
Aircraft & Vessel Totals									
Total	------	3,170 / 12,000 L	18,226/ 69,000 L	18,226/ 69,000 L	39,622 / 150,000L	889/ 141 m³	12,208/ 1,939 m³	17,875 / 2,839 m³	30,982 / 4,919 m³

Table 1: Dispersant Capabilities of Tier 1 and Tier 3 providers

* The dispersant array of the Danchor IV may be installed on either of the Danchor vessels, with similar spraying capabilities.

For further information regarding available dispersant quantities, see Appendix 7.

5.7.3.1 Dispersant Approval Process

The MoEP's approval is required before applying dispersants within Israeli waters. No spray operations either by aircraft or vessel will be conducted without written approval from MoEP.

To expedite the commencement of dispersant operations to respond to a spill, the IMT will commence the dispersant approval process simultaneously with activating dispersant resources. To obtain Israeli government approval the IMT will first complete and submit the Initial Response Information Form (See Appendix 8) to the appropriate Israeli authorities. This form will provide initial information on the spill, location of the spill showing it is in an approved dispersant application area, and the dispersant will be effective on the oil spilled.

In order to remove any doubt, we emphasize that the use of dispersants in Israel is permissible only upon prior approval by the MoEP for the specific dispersant to be used. See Appendix 8 for application form.

5.7.3.2 Dispersant Offshore Application Areas

To commence the approval process, the IMT should first determine the location of the spill and whether the location is in an area where dispersants can be applied. As stated in the TALMAT, NEML agrees that dispersant use is a primary response tool for most oil spills that occur in offshore areas that have water depths greater than 20 meters and are greater than 1 nautical mile (nm) from national parks, marine reserves or other specially protected areas.

Dispersant application is optimally carried out during daylight hours due to the need to target the leading edge of the hydrocarbon slick to ensure a high encounter rate with the dispersant. With the current distance of the field from shore, significant resources will be used to keep beach impact to a minimum, if at all.

5.7.4 MECHANICAL AGITATION (WATER FLUSHING)

Most marine fuel oil will, if released into the water, create a large sheen on the surface of the water the further removed from the initial on water release source it becomes. Several marine fuel oils have a specific gravity .85 or higher will evaporate quickly. In this case, mechanical agitation is recommended when wave heights are below 0.2m or when a sheen has developed. It is possible to assist dispersion of oil by using vessels in the area for 'prop washing', in other words using the wake generated by the vessel to agitate the oil, further agitating the hydrocarbon molecules and assisting in evaporation.

5.7.5 MECHANICAL RECOVERY

Mechanical recovery will be the primary option for a Heavy Fuel Oil (HFO) release into the sea. Concentration of skimming assets around the source would allow for more efficient recovery operations by maximizing the encounter rate of the skimmers. Skimmers will be deployed in conjunction with inflatable offshore boom, such as the Desmi Ro-Clean, located in NEML's Tier 1 package. The booming process is a two-vessel operation, with one vessel serving as a "deployment craft" and one as a "daughter craft". The deployment craft holds the boom deployment/recovery reel and associated equipment, and the bulk of personnel assets assigned to the operation. The daughter craft contains limited number of deckhands. The two craft must work in close concert to establish a "J" formation, in which

the skimmer is placed at the apex. This allows for a deep collection point at which product gathers, thereby creating the maximum encounter rate possible.

Additionally, should recoverable product be encountered, smaller skimming units and shore protection boom would be positioned near to the shoreline to protect critical assets. Aerial observation should be used to determine if recoverable product is approaching shorelines, and, if it is discovered, the spotter aircraft can notify the near-shore skimming assets where to position themselves to be most effective.

From a strategic standpoint, near-shore and offshore skimming resources will be deployed in much the same fashion. The only significant difference is the actual skimmers used, which can vary based on capacity. Should additional skimming resources be required to accomplish strategic or tactical objectives, they will be brought in through agreements with NRC and OSRL.

5.7.6 SHORELINE PROTECTION

Booming strategy may include placement of deflection boom in front of the inlet, and angling of the boom inside of the inlets to collect any product that may pass the deflection boom. Shallow water skimmers may be placed at the end of deflection booms or especially sensitive and/or natural collecting points. In open shallow water areas, skimmers may be used in a dynamic mode.

Appendix 5 identifies areas that could potentially be impacted by an unintentional release and may require shoreline protection resources to be deployed.

5.7.7 SHORELINE CLEANUP

With limited shoreline protection resources and near shore activities, if marine fuel oil is released into an open water environment a beach or shoreline will be impacted by oil for large oil releases. As such, The State of Israel has authorized mechanical, manual as well as bioremediation techniques for cleanup.

Cleanup strategies will vary widely depending on seasonal conditions, daylight vs nighttime lighting, coastal makeup (sandy, boulders, man-made structures, etc….) and the amount of oil located in a particular beach section. Shoreline cleanup operations are often considered in three stages:

(1) Bulk oil removal from shore to prevent remobilization (a technique with heavy fuel oils).
   a. Typical cleanup operations include vacuum trucks, pumps and skimmers near the pooled oil. For emulsified oil (heavy fuel/crude products) non-specialized civil engineering or agricultural machinery could be used to collect and remove stranded oil or contaminated material.

(2) Removal of stranded oil and oiled shoreline material which is often the most protracted part of the clear-up (cleaned beach sections becoming oiled due to tidal impact).
   a. Flushing, a technique that uses high volumes of low-pressure water to wash stranded or buried oil from shorelines, or surf washing, whereby the natural cleaning action of the shoreline waves are used to release the oil from the shore sediment are used with large success rates for stranded oil beaches. Additionally, a combination of the two techniques described above have been used with large success by pushing the oiled sand, using

mechanical means, back into the surf to allow the natural wave action to disperse the oil.

(3) Cleaning of the light contamination and removal of stains, if required.

Consideration will also be given to environmentally or culturally sensitive shoreline areas to ensure the planned level of cleaning will not cause more harm than leaving the oil in place.

5.8 WASTE MANAGEMENT

NEML procedures for waste management of materials recovered from a release are as follows:

5.8.1 WASTE COLLECTION & STORAGE LOCATIONS

Waste collection receptacles shall be clearly labeled and provided in strategic locations. Employees, contractors, and visitors shall be advised of what waste should or should not be discarded. Food and drink is prohibited in any waste storage area.

Waste collection receptacles shall be labeled appropriately and provided in locations determined by coordinated efforts of the Waste Group Supervisor and appropriate ministry officials. The Waste Group Supervisor will establish the locations of the receptacles and the central processing location based on response activities and the location of the release. Waste collection receptacles will be lined, covered, and readily available.

When waste satellite collection points (on vessels) are full they will be shipped to the central processing location for transportation to the disposal facility. Any liquid waste recovered from skimming activities will be transferred for temporary storage at Dor and/or Gadot based on availability and existing master service agreements. The NEML EHS Manager maintains a copy of this agreement.

The central processing area should be kept orderly and be designated specifically for hazardous waste. Product should not be stored in this area. Waste should also be stored using safe practices.

5.8.2 WASTE TRANSPORTATION & DISPOSAL

All waste shipped to shore for disposal will be collected at either the central processing area or temporary liquid storage area locations and disposed as specified in this Plan.

The generator of the waste is ultimately responsible for the proper disposal of the waste. The Waste Group Supervisor shall ensure legal requirements are complied with at all times and is responsible for ensuring the hazardous Waste Disposal Log is up to date and a copy of all shipping documentation is maintained in a centralized location onsite.

5.9 REHABILITATION

To support a sustained response effort, additional resources have been identified. These resources will be engaged at the direction of the IMT to support rehabilitation efforts within the affected area.

A list of resources NEML has timely access to can be found in Appendix 7 of this plan.

5.10 REPORTING REQUIREMENTS

It is NEML's policy to report all releases immediately as required by regulations. Upon discovery of a release, provided that it is established that an incident actually occurred, the OSC will notify the Ministry of Environmental Protection (MoEP) Environmental Emergency Center, and other appropriate officials as necessary. See Table 2 for a list of those reporting requirements. The IC, or his designee, will also notify the responsible party (if known).

Designated personnel will immediately report the incident to the Ministry of Energy (MOE) having jurisdiction over the location where the incident has occurred. As additional information becomes available, the ministry will be notified through normal reporting channels.

If necessary, requests will be made to the On-Scene Inspector with MCED, for the following:

- 2 km Safety Zone in Water - MCED
- 10 km Safety Zone in Air - MCED
- Notice to Mariners – MCED

Note: When calling from outside of Israel, dial country exit code, +972, and drop the leading "0" in the area code. The leading "0" in area codes (02, 03, 04, etc.) is only dialed when calling within Israel.

REQUIRED NOTIFICATIONS	
Ministry of Natural Infrastructure, Energy and Water Resources – Senior Coordinator for Oil & Gas	
Victor Bariudin	@phone@ (24 Hr.) @phone@ (Day Phone)
REPORTING REQUIREMENTS TYPE: Knowledge of a liquid hydrocarbon discharge greater than 1 bbl into water. VERBAL: Immediate oral notification (by telephone). WRITTEN: Ensure a log of notification is maintained.	
Ministry of Environmental Protection – Marine Environment Protection Division	
Shlomo Katz	@phone@ (24 Hr.) @phone@ (Day Phone)
REPORTING REQUIREMENTS TYPE: Knowledge of a liquid hydrocarbon discharge greater than 1 bbl into water. VERBAL: Immediate oral notification (by telephone). WRITTEN: Ensure a log of notification is maintained.	
Natural Gas Authority	
Yasha Juborsky	@phone@ (24 Hr.) @phone@ (Day Phone)
REPORTING REQUIREMENTS TYPE: Threat / Knowledge of a liquid hydrocarbon discharge threatening their jurisdiction. VERBAL: Oral notification (by telephone). WRITTEN: Ensure a log of notification is maintained.	
Petroleum Commissioner (Per Leviathan Leases)	
Yossi Wurzburger	@phone@
REPORTING REQUIREMENTS PER LEVIATHAN LEASES TYPE: Knowledge of a liquid hydrocarbon discharge. VERBAL: Oral notification (by telephone). WRITTEN: Written report due no later than 24 hours after awareness of event. Report must include the cause, location, volume, and remedial action taken. Spills of more than 50 barrels must include information on the sea state, meteorological conditions, and the size and appearance of the slick.	
Haifa Port Harbor Master	
	@phone@ (24 Hr.)
REPORTING REQUIREMENTS TYPE: The master or any other representative of the vessel, whether at sea or in port should notify Israeli authorities on any pollution that may impact Port Operations. VERBAL: Oral notification (by telephone). NOTE: The report should be made through the respective Port Control.	

REQUIRED NOTIFICATIONS	
Haifa Port Marine Coastal Inspector	
	@phone@ (24 Hr.)
REPORTING REQUIREMENTS TYPE: The master or any other representative of the vessel, whether at sea or in port should notify Israeli authorities on any pollution that may impact Port Operations. VERBAL: Oral notification (by telephone). NOTE: The report should be made through the respective Port Control.	
RCC	
	@phone@ (24 Hr.)
REPORTING REQUIREMENTS TYPE: Knowledge of a liquid hydrocarbon cleanup operation. VERBAL: Oral notification (by telephone). WRITTEN: Ensure a log of notification is maintained. NOTE: RCC is used to help facilitate MEDEVAC coordination from on water cleanup operations.	
Israel Nature and Parks Authortiy	
North District	04-652-2167
REPORTING REQUIREMENTS TYPE: Knowledge of a liquid hydrocarbon discharge with sensitive area impact. VERBAL: Oral notification (by telephone). WRITTEN: Ensure a log of notification is maintained.	

Table 2. Required Entity Notifications

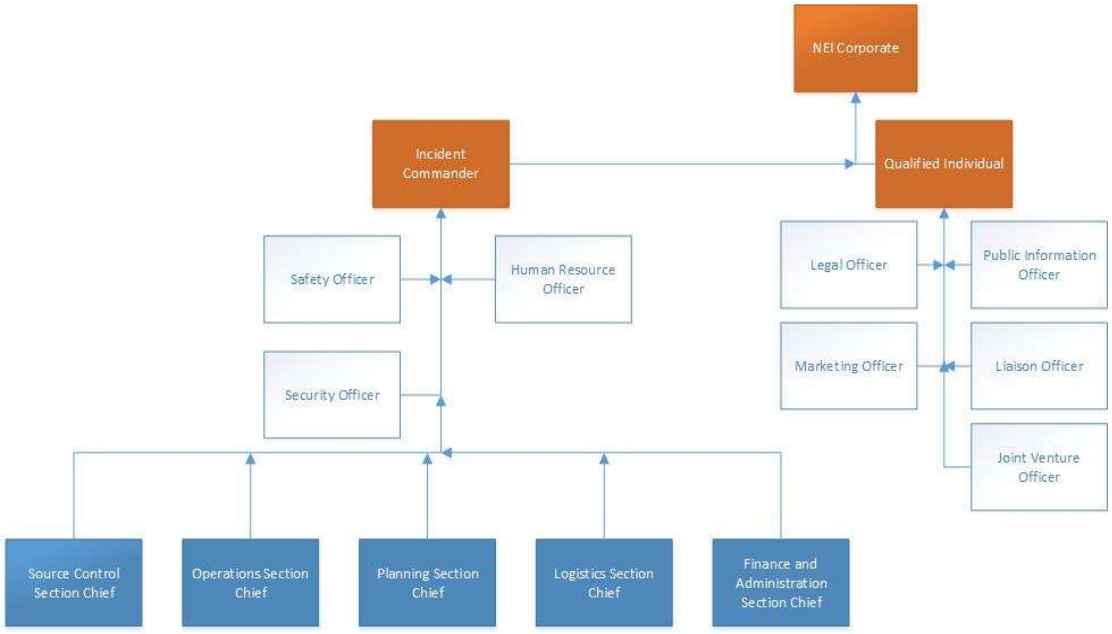
6 IMT Roles and Responsibilities

The IMT is a team comprised of personnel from NEML Operations and Support activities organized into an ICS structure (Figure 2). The IMT is activated in the event an incident expands beyond the capabilities of on-site personnel. When activated, the IMT assumes responsibility for the following actions:

- Sizing up the incident to identify the problems that need to be addressed by response personnel.
- Ensuring that response operations are carried out in a safe, well-organized, and effective fashion.
- Developing solutions to the problems and organizing the work to be done into manageable tasks to achieve site control, ensure site safety, control the source of the incident, and protect people, the environment, and property.
- Securing and assigning necessary response resources.
- Supporting response operations.
- Continuously assessing the incident to determine the adequacy of available response resources and the potential need for elevation to a Tier 2 or Tier 3 response.
- Coordination with local municipal jurisdiction's (Appendix 5 and Talmat F-1) on response planning strategies and supporting requirements as required.
- Interacting, as appropriate, with IMT personnel, government agency officials, and other involved or interested parties.

On-site personnel and the IMT are capable of handling most incidents that may occur at NEML facilities. However, the potential exists for incidents that require a response capability beyond that provided by the Tier 1 resources in country and may require additional out of country Tier 2/3 resource activation. If and when such incidents occur, the IMT would activate the NEI Corporate Support Team as described in the Business Unit's Emergency Management Plan (EMP).

Figure 2: Incident Management Team Organization



6.1 QUALIFIED INDIVIDUAL (QI)

- Direct activation of IMT, as appropriate.
- Ensure that strategic issues such as business continuity, legal liabilities, and company reputation are considered.
- Issue strategic objectives to Incident Commander (IC).
- Communicate incident details to OA leadership.
- Manage media relations.
- Authorize expenditure of funds for incident response.
- Serve as focal point between IMT and CST/CMT.
- Manage government/partner/customer relations.
- Maintain an activity log (ICS-214).

6.2 INCIDENT COMMANDER (IC)

- Set Incident Objectives and operational period.
- Establish incident response organization.
- Activate required Command & General Staff positions.
- Implement resource ordering process.
- Implement cost sharing/cost accounting procedures.
- Communicate incident details to QI.
- Support initial incident call with CST/CMT directors.
- Approve and authorize implementation of the Incident Action Plan (IAP).
- Participate in the Command & General Staff Meeting.
- Maintain an activity log (ICS-214).

6.3 PUBLIC INFORMATION OFFICER (PIO)

- Develop incident information with IC for release to public and media.
- Obtain QI review and approval of all information releases.
- Coordinate/Conduct media briefings.
- Manage partner/government Joint Information Center (JIC), if activated.
- Brief IC on public information issues and concerns.
- Participate in the Command & General Staff Meeting, Planning Meeting, and Operation Period Briefing.
- Maintain an activity log (ICS-214).

6.4 LEGAL OFFICER

- Advise IMT on legal Issues related to the incident and response operations.
- Review all media releases prior to release.
- Participate in the Command & General Staff Meeting and Planning Meeting.
- Maintain an activity log (ICS-214).

6.5 LIAISON OFFICER

- Serve as communications conduit between IMT and stakeholders impacted by the incident.
- Monitor operations for potential government interagency problems.
- Participate in Command & General Staff Meeting and Planning Meeting.

- Coordinate activities of visiting dignitaries.
- Maintain an activity log (ICS-214).

6.6 MARKETING OFFICER

- Manage communications with NEML customers impacted by the incident.
- Work with Operations to ensure outage/delay forecasting is accurate.
- Inform IMT of customer impacts and potential long term issues.
- Manage government interagency problems.
- Participate in Command & General Staff Meeting and Planning Meeting.
- Coordinate activities of visiting dignitaries
- Maintain an activity log (ICS-214)

6.7 JOINT VENTURE OFFICER

- Manage communications with partners/joint venture entities listed for the specific project/field.
- Manage government interagency problems.
- Participate in Command & General Staff Meeting and Planning Meeting.
- Coordinate activities of visiting dignitaries
- Maintain an activity log (ICS-214

6.8 SAFETY OFFICER

- Develop and publish Site Safety Plan (ICS-208).
- Develop the Incident Action Plan Safety Analysis worksheet (ICS-215A).
- Review and Approve Medical Plan (ICS-206).
- Participate in Command & General Staff Meeting, Tactics Meeting, Planning Meeting, and Operations Period Briefing.
- Monitor incident operations for safety issues.
- Maintain an activity log (ICS-214).

6.9 SECURITY OFFICER

- Develop Site Security Plan, as appropriate.
- Assist Safety Officer with development of Incident Action Plan Safety Analysis worksheet (ICS-215A).
- Participate in Command & General Staff Meeting, Tactics Meeting, Planning Meeting, and Operations Period Briefing.
- Monitor incident operations for security Issues.
- Maintain an activity log (ICS-214).

6.10 HUMAN RESOURCES (HR) OFFICER

- Coordinate Critical Stress Management (CSM) issues.
- Coordinate between IMT and injured employee(s).
- Coordinate with PIO concerning employee information.
- Provide IMT employee administrative oversight.
- Maintain an activity log (ICS-214).

6.11 OPERATIONS SECTION CHIEF

- Evaluate and request sufficient staffing and supervision.
- Participate in Command & General Staff Meeting, Tactics Meeting, Planning Meeting, and Operations Period Briefing.
- Identify/Utilize Staging Areas.
- Supervise Operations Section personnel.
- Subdivide the section's work areas into manageable components.
- Develop work assignments of the section's personnel and allocate tactical resources based on strategic requirements Operational Planning Worksheet (ICS-215).
- Participate in the planning process and the development of the tactical portions on the Organization Assignment List and Air Operations Summary Worksheet (ICS-204 and ICS-220, respectively) of the IAP.
- Assist with development of long-range strategic, contingency, and demobilization plans.
- Maintain an activity log (ICS-214).

6.12 SOURCE CONTROL SECTION CHIEF

- Participate in Command & General Staff Meeting, Tactics Meeting, Planning Meeting, and Operations Period Briefing.
- Evaluate and request sufficient staffing and supervision.
- Identify/Utilize Staging Areas.
- Supervise Source Control Section personnel.
- Subdivide the section's work areas into manageable groups.
- Develop work assignments for the section's personnel and allocate tactical resources based on strategic requirements Operational Planning Worksheet (ICS-215).
- Participate in the planning process and the development of the tactical portions of the Organization Assignment List (ICS-204) of the IAP.
- Assist with development of long-range strategic, contingency, and demobilization plans.
- Maintain an activity log (ICS-214).

6.13 PLANNING SECTION CHIEF

- Facilitate Command & General Staff Meeting, Tactics Meeting, Planning Meeting, and Operations Period Briefing.
- Collect, process, and display situational information to the IMT.
- Assist Operations and/or Source Control Section Chiefs in development of response strategies.
- Supervise the preparation of the IAP.
- Supervise tracking of all personnel and resources assigned to the incident.
- Establish IMT reporting requirements and schedule.
- Determine the need for specialized resources to support the incident.
- Establish special information collection activities, as necessary (e.g., weather, environmental, etc.).
- Direct development of IMT supporting plans, as required (e.g., traffic, medical, communications, demobilization, transition, security, etc.).
- Maintain an activity log (ICS-214).

6.14 ENVIRONMENTAL UNIT

- Participate in Tactics, Planning Meeting and Operational Period Briefing
- Assess spill hazards
- Predict movement and dispersion of products through
  - On-water spill trajectory modeling and mapping
  - Shoreline assessment and mapping
- Provide expertise on living marine resources and their habitats and information on associated cleanup and mitigation methods
- Develop strategies to minimize environmental monitoring strategies that will help decision makers understand the impact of response countermeasures that have been implemented.
- Prepare environmental data for Situation Unit
- Provide direction, if needed, to contractor(s) during cleanup.
- Maintain an activity log (ICS-214)

6.15 LOGISTICS SECTION CHIEF

- Participate in Command & General Staff Meeting, Tactics Meeting, Planning Meeting, and Operations Period Briefing.
- Determine and supply immediate incident resource and facility needs.
- Manage resource request process.
- Track resource effectiveness and make necessary adjustments.
- Provide resource and logistical support for upcoming operational period per information within Operational Planning Worksheet (ICS-215).
- Develop Communications Plan (ICS 205 & 205A) and Medical Plan (ICS 206) for IAP.
- Identify long term service and support requirements.
- Maintain an activity log (ICS-214).

6.16 FINANCE & ADMINISTRATION SECTION CHIEF

- Participate in Command & General Staff Meeting, Planning Meeting, and Operations Period Briefing. Review operational plans and provide alternatives where financially appropriate.
- Manage all financial aspects of the incident.
- Provide cost analysis, as requested.
- Establish third party claims process, if required.
- Track personnel and equipment time.
- Ensure all obligation documents are properly prepared and completed.
- Establish and manage compensation & claims issues.
- Maintain an activity log (ICS-214).

7 COORDINATION WITH OTHER ENTITIES

7.1 NEIGHBORING FACILITIES AND AUTHORITIES

NEML will work with affected facilities and/or authorities to augment their response efforts in the event of an impending hydrocarbon incident that may affect their facility. The list of contacts in Appendix 5 - Neighboring Facilities and Authorities, references the facilities and coastal authorities which may be affected by pollution from NEML operations.

7.2 COORDINATION WITH NEIGHBORING LOCAL AUTHORITIES

NEML will work with neighboring local authorities and their relevant emergency plans to facilitate response measures. This includes contacting those entities in the event of an incident and offering any necessary assistance to prevent or mitigate potential impacts to those local authorities. NEML's response resources will be deployed in a manner to prevent impacts to sensitive areas and support the needs of all neighboring local authorities will be considered in those efforts.

7.3 COORDINATION WITH STATE OFFICIALS

In the event the State of Israel experiences a Talmat Tier 3 type incident, NEML is prepared to offer assistance with access to our Tier 1 capability. This is in compliance with Section 1.9 of the National Contingency Plan for Preparedness and Response to Incidents of Oil Pollution of the Sea (TALMAT). Continued coordination of resource requirements will be handled by the NEML IMT.

7.4 CONTRACTED EQUIPMENT AND SERVICES

NEML has entered into contracts with a number of contractors for the purpose of responding to releases. These contractors include:

- Marine Pollution Services (Tier 1 Equipment, Manpower, and Waste Handling)
- OSRL (Certified OSRO, Tier 2/3 Equipment and Manpower Support)
- NRC (Certified OSRO, Tier 2/3 Equipment and Manpower Support)
- @@@@ (Compensation and Claims)
- Spill Management Team
- Dor Chemical (Contingency Support for Waste Handling)
- Gadot (Contingency Support for Waste Handling)
- Chemovil Group (Contingency Support for Waste Handling)

7.4.1 EQUIPMENT INSPECTIONS

Inspection by Oil Spill Response contracted vendors occurs on a quarterly basis. Annual deployment of the equipment is conducted usually in conjunction with a governmental initiated or required exercise. NEML personnel are provided with updates on equipment status and have the right to initiate spot checks of the equipment.

7.4.2 EQUIPMENT SPECIFICATIONS

Item descriptions, quantity, function, location, general response times and specifications of mechanical equipment and special products for the treatment of sea pollution, are located in Appendix 7 – Technical Means for Treatment of Incident. The timeframes for all assets listed as being in country include the timelines for being operationally deployed.

Those assets listed as cascading from out of country show a timeline for arriving at a point of entry into Israel. In order for those out of country resources to be operationally deployed, several factors should be considered:

- NEML is assuming approximately a four (4) hour time frame to clear customs for all out of country resources.
- It should take approximately two (2) hours to transit from the point of entry to a shore-base deployment point.
- Approximately one and one half (1.5) hours should be allowed for load-out of equipment onto the appropriate deployment craft.

Dispersant application equipment should be assembled to deployment readiness during this transit time, thus not increasing the response time of those resources.

7.4.3 Installation Vessel Specifications

The installation vessels will have a number of response resources for an oil spill event on deck, depending on the vessel configuration. These may include:

- Large marine spill kits
- An oily water separator system to treat residues not contained in the spill kits
- Personnel dedicated as the Emergency Response Team (ERT) Spill Crew.

8 Plan Maintenance

8.1 Training and Exercise

NEML requires all response personnel to have appropriate training to serve in their assigned position during a response. Each member of the Incident Management team has undertaken the appropriate level Incident Command System (ICS) training.

8.1.1 Operational Training

Training will be conducted at least annually in operational response actions, including dispersant application and mechanical recovery. This training may be held in conjunction with annual drills.

8.1.2 Simulation Drill

A simulation drill for the IMT will be held annually, including an activation of the Incident Command Center (ICC), for the purpose of evaluating procedures and locating gaps.

8.1.3 Full Scale Exercise

A full scale exercise will be conducted once every year combining the efforts of the IMT and actual equipment deployment, as required by regulatory authorities.

8.2 Records

A log will be maintained which documents the history of the events and communications that occur during the response. When recording this information, the log may become instrumental in legal proceedings.

8.2.1 INCIDENT ACTION PLAN

During significant response activities, development of an Incident Action Plan (IAP) is critical for identifying objectives and strategies and implementing tactics for each operational period. The number, type and frequency of the IAP forms used is dependent on the complexity of the incident and determined by the Incident Commander in conjunction with the Unified Command (if activated). An incident management software will be utilized in the development of the IAP.

The Documentation Unit Leader within the ICS organization is responsible for the control of records during an incident. They will determine the process for keeping records and how to keep them. Ultimately, records kept from a NEML incident will be kept at the NEML offices for a period of no less than three years.

APPENDICES

APPENDIX	CONTENT
1	Acronyms and Definitions
2	Record of Change
3	External Personnel and Emergency Rescue/Command Services
4	Scenario Risk Considerations
5	Neighboring Facility Authorities
6	Field Installation Vessel - WCD
7	Technical Treatment Equipment/Supplies
8	MoEP Spill Report and Dispersant Approval Form
9	Installation & Response Vessel Contact List
10	Tier 3 Oil Spill Response Support Options

APPENDIX 1: ACRONYMS AND DEFINITIONS

ACRONYMS	
Bbl(s)	Barrel(s)
CMP	Crisis Management Plan
CMT	Crisis Management Team
COP	Common-Operating-Picture
CST	Corporate Support Team
EHS	Environmental, Health, and Safety
EHSR	Environmental, Health, Safety, Regulatory
EMP	Emergency Management Plan
EEZ	Exclusive Economic Zone
GMS	Global Environmental, Health and Safety Management System
HFO	Heavy Fuel Oil
HR	Human Resources
IAP	Incident Action Plan
IC	Incident Commander
ICC	Incident Command Center
ICS	Incident Command System
IDF	Israeli Defense Forces
IEC	Israel Electric Corporation
IMO	International Maritime organization
IMT	Incident Management Team
JIC	Joint Information Center
MCED	Marine Coastal and Environmental Division
MGO	Marine Gas Oil
MoE	Ministry of Energy
MPS	Marine Pollution Service
MOD	Ministry of Defense
MoEP	Ministry of Environmental Protection
MOT	Ministry of Transportation
NEI	Noble Energy, Inc.
NEML	Noble Energy Mediterranean Ltd
NM	Nautical Mile
NRC	National Response Corporation
OA	Operational Area
OSC	Operation Support Center
OSCP	Oil Spill Contingency Plan
OSRL	Oil Spill Response Ltd

OSRO	Oil Spill Response Organization
PIC	Person In Charge
PIO	Public Information Officer
PPE	Personal Protective Equipment
QI	Qualified Individual
SCADA	Supervisory Control and Data Acquisition
SEMS	Safety Environmental Management System
SIMOPS	Simultaneous Operations
SOPEP	Shipboard Oil Pollution Emergency Plan
SMT	Spill Management Team
VOC	Volatile Organic Compounds
WCD	Worst Case Discharge

DEFINITIONS	
Crisis Management Team (CMT)	An NEI executive leadership group focused on corporate and reputational impacts created by an incident
Corporate Support Team (CST)	A specialized group assembled from NEI personnel to provide support to IMT in the event of an incident that has grown in complexity beyond the capabilities of the IMT.
Global Environmental, Health and Safety (EHS) Management System (GMS)	The umbrella framework under which NEI's legal requirements and best practices are incorporated within a model that integrates elements from both the US Occupational Health & Safety Administration and the US Bureau of Safety and Environmental Enforcement (BSEE) Safety Environmental Management System.
Incident	An undesired event which results, or has the potential to result, in harm to people, damage to property, loss of process, and/or harm to the environment.
Incident Commander (IC)	The designated NEML representative responsible for the management of all incident activities on site. The IC leads the IMT.
Incident Command Center	The designated location from which the IMT supports the incident and manages the impact to the business unit.
Incident Command Post (ICP)	The field location at which the primary tactical-level, on-scene incident command functions is performed.
Incident Command System (ICS)	A standardized on-scene emergency management concept specifically designed to allow its user(s), an incident response organization, to adopt an integrated, modular organizational structure scalable to the complexity and demands of an incident.
Incident Management Team (IMT)	A team comprised of personnel from the OA organized into an ICS structure in the event of an incident that has grown beyond the capabilities of on-site personnel.
Operational Area (OA)	The area of responsibility identified for core business within Israel.
Public Information	Information that is disseminated to the public via the news media before, during, and/or after an emergency or disaster
Qualified Individual (QI)	A designated NEML representative authorized to expend funds during emergency operations and serves as the link between the IMT and CST.
Stakeholder	External entities within the OA that may be impacted by NEML emergency operations.

APPENDIX 2 – RECORD OF CHANGE

RECORD OF REVIEWS & REVISIONS			
Date	**Action**	**Text**	**Author**
09/16/2018	@@@@	@@@@	@name@
10/20/2018	@@@@	@@@@	@name@
11/4/2018	@@@@	@@@@	@name@
12/31/2018	@@@@	@@@@	@name@
1/16/2019	@@@@	@@@@	@name@

APPENDIX 3: EXTERNAL PERSONNEL AND EMERGENCY RESCUE AND COMMAND SERVICES

Note: When calling from overseas, dial country exit code, +972, and drop the leading "0" in the area code. The leading "0" in area codes (02, 03, 04, etc.) is only dialed when calling within Israel.

ENTITY	DISCIPLINE	PRIMARY PHONE
AIR FORCE	@position@	@phone@
	@position@	@phone@
	@position@	@phone@
	@position@	@phone@
AIRPORT AUTHORITIES	Ben Gurion Airport Command and Control (24/7)	@phone@
	Ben Gurion Airport Immigration	@phone@
	Sde Dov Control Tower	@phone@
	Ben Gurion Control Tower	@phone@
	Ben Gurion Airport –Security Duty Manager (24/7)	@phone@
	Passport Control	@phone@
ASHDOD PORT	Ashdod Municipality Security Manager- @name@	@phone@
	Ashdod Municipality Security Department	@phone@
	Ashdod Harbor Master	@phone@
	Port Security Manager- @name@	@phone@
	Security Officer	@phone@
	Ashdod Port Immigration	@phone@
	Passport Control-@name@	@phone@
AVIATION SECURITY OPERATIONS CENTER	Call Center 24/7	@phone@
	Aviation Security Operations Manager- @name@	@phone@
@company@	@name@	@phone@
	@name@	@phone@
	@name@	@phone@
CYPRUS	Navy Commander - @name@	@phone@
@company@	General Manager - @name@	@phone@
HAIFA PORT	Port Security Manager - @name@	@phone@
	Haifa Harbor Master	@phone@
	Haifa Harbor Security Officer	@phone@
	Haifa Port Immigration	@phone@
	Haifa Municipality Security Department	@phone@
RCC - HAIFA	Regional Coordination Center	@phone@
HOME FRONT COMMAND	Information Center – Main Control	@phone@
	Information Center – South Region	@phone@
HERZLIYA MARINA	Marina	@phone@
	Herzliya Municipality Security Department	@phone@

INTERNAL AIRPORTS	Security Manager –Sde Dov @name@	@phone@
	Sde Dov Security	@phone@
	Airport Manager-Sde-Dov @name@	@phone@
	Security Manager –Haifa @name@	@phone@
	Airport Manager-Haifa @name@	@phone@
ISY	ISY Security Manager - @name@	@phone@
	ISY Security Control Room	@phone@
	Operations Manager- @name@	@phone@
LAHAK	Ron Ben-Moshe CEO	@phone@
	Avishay Head of Ops	@phone@
	Menachem VP	@phone@
	Call Center	@phone@
LOCAL EMERGENCY CONTACTS	Police	100 Tel Aviv: 03-546-0111 Jerusalem: 02-652-3133 Haifa: 04-851-2233
	Ambulance / Magen David Adom	101 03-546-0111 03-540-2652
	Fire	102
	Primary Hospital (Ichilov Tel Aviv)	03-679-4000
	Alternate Hospital (Tel Hasomer)	03-530-3030
	Herzeliya Medical Center	09-959-2999
	The Barzilai Medical Center	08-674-5777
	Rambam Medical Center	1-700-505-170
		04-854-2222
	Assaf Harofe Medical Center	08-977-9900
	Ziv Hospital	Harambam St. Safed (Tsfat) 04-682-8811
Joyce McCall	Bridge	@phone@
Nor Naomi	Bridge	@phone@
MOD	Deputy General Director- Ministry of Defense @name@ (Direct Responsibility for EEZ)	@phone@
	@name@	@phone@
MOE	Head of Security- @name@	@phone@
MOT	Aviation Security Ops Control (ASOC)	@phone@
	Head of Division-@name@	@phone@
	Deputy Director for Ministry of Transportation Security- @name@	@phone@

NAVY	Navy Command Post	@phone@
	Security Officer (Tel Aviv)	@phone@
	Officer @name@ (Ops Manager, Ashdod)	@phone@
	Officer @name@ (Ashdod)	@phone@
	Head of Command (Chief Staff of Command)	@phone@
OIL SPILL REMOVAL ORGANIZATIONS (OSRO)	Marine Pollution Services (MPS)	@phone@
	Oil Spill Response Limited (OSRL)	@phone@
	National Response Corporation (NRC)	@phone@

APPENDIX 4: RISK CONSIDERATIONS

LPP Release Scenarios

Ref.	Scenario	Product	Volume	Likelihood	Consequence	Comments
1	Minor fuel releases from support / supply vessel.	Marine Gas Oil	<1m³ (<6.3bbls)	E	0	Likely to naturally dissipate quickly.
2	Work boat incident resulting in loss of largest marine fuel volume.	Marine Gas Oil	18 - 4149m³ (113- 26,097 bbl)	B	3	MGO release likely to naturally dissipate. Due to large volume likely to spread over a large area. Exact volume depends on vessel.
3	Loss of lube oils from Installation Vessel.	Lube Oil	174 m³ (1094 bbl)	B	2	Unlikely entire inventory will be lost to sea.
4	Minor operational or maintenance releases.	Utility, Marine Gas Oil	<1m³ (<6.3 bbls)	D	0	Release unlikely to have a significant impact due to size, and it would be easily mitigated. Release may not reach the marine environment if contained on deck.
5	Work boat incident resulting in loss of largest marine fuel volume.	Heavy Fuel Oil	345 m3 (2,170 bbls)	B	3	HFO release likely to remain intact and allow for booming and skimming operation. Exact volume depends on vessel.

Risk Assessment Matrix and Summary

The risk assessment matrix shows the overall risk profile for Noble Energy installation operations. The matrix indicates there are no high-risk operations as a result of NEML's implementation of various prevention and mitigation strategies to ensure the risk is as low as reasonably practicable. Such measures include the closed drain system on the rig and oil-water separator system. The only spill scenario that present a moderate risk is a ship Allision resulting in catastrophic loss of at least one MGO or HFO storage tank aboard the one vessel. This moderate risk rating results from the potential large-scale impact and potential shoreline impact, despite the low probability of such events occurring.

CONSEQUENCE					INCREASING LIKELIHOOD				
					A	B	C	D	E
Severity	People	Assets	Environment	Reputation	Never heard of in the industry	Heard of in the industry	Happened in organization /more than once per year in industry	Happened at the location/ more than once per year in organization	Happened more than once a year at the location
0	No injury or health effect	No damage	No effect	No impact				4	1
1	Slight injury or health effect	Slight damage	Slight effect	Slight impact					
2	Minor injury or health effect	Minor damage	Minor effect	Minor impact		3			
3	Major injury or health effect	Moderate damage	Moderate effect	Moderate impact		2, 5			
4	Permanent total disability / up to 3 fatalities	Major damage	Major effect	Major Impact					
5	More than 3 fatalities	Massive damage	Massive effect	Massive impact					

APPENDIX 5: NEIGHBORING FACILITY AUTHORITIES

No	Plant	Location	Title	Phone 1	Phone 2
1	Haifa Port	Haifa	Port Manager	@phone@	@phone@
2	Haifa Municipality	Haifa	City Hall Manager	@phone@	@phone@
3	IEC Haifa	Haifa	Operation Engineer	@phone@	@phone@
4	IEC Rabin	Hadera	Production Engineer	@phone@	@phone@
5	Desalination	Hadera	Operation Engineer	@phone@	@phone@
6	Hadera Port	Hadera	Port Manager	@phone@	@phone@
7	Hadera Port	Hadera	Harbor Master	@phone@	@phone@
8	Hof HaCarmel	Hof HaCarmel	Coastal Sites Manager	@phone@	@phone@
9	MoEP - Marine Environment Protection Division	Haifa	Manager	@phone@	@phone@
10	Nature and Parks Authority	North District	District Manager	@phone@	@phone@
11	Israel Electric Corporation (IEC)	Tel Aviv	Operation Engineer	@phone@	@phone@
12	Nature and Parks Authority	Central District	District Manager	@phone@	@phone@
13	Nature and Parks Authority	North District	District Manager	@phone@	@phone@
14	Israel Defense Force (IDF)		Environment Unit Manager	@phone@	@phone@

APPENDIX 6: FIELD INSTALLATION VESSELS - WCD

Phase 1 – LPP Jacket Installation Vessels

Vessel Name	Operation	Tank Product	API Gravity	WCD Largest Fuel Tank	Total Fuel Storage (*)
@name@	Construction Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Work Boat	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Work Boat	Marine Fuel Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Work Boat	Marine Fuel Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Work Boat	Marine Fuel Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Work Boat	Marine Fuel Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Assist Tug	Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Assist Tug	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Launch Barge	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Launch Barge	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Security Vessel	TBD	TBD	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl

(*) The modelling of WCD scenarios is based on release of the largest fuel tank.

Phase 2 – LPP Commissioning Vessels

Vessel Name	Operation	Tank Product	API Gravity	WCD Largest Fuel Tank	Total Fuel Storage (*)
@name@	Umbilical Install	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Supply Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Supply Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Construction Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Pipe Lay Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Launch Barge	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Deck Cargo Pontoon	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Launch Barge	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Launch Barge	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl

(*) The modelling of WCD scenarios is based on release of the largest fuel tank.

Leviathan Sub Sea Work Vessels

Vessel Name	Operation	Tank Product	API Gravity	WCD Largest Fuel Tank	Total Fuel Storage (*)
@name@	Umbilical Install	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Supply Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Heavy Lift Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Heavy Lift Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
		Heavy Fuel Oil	11.3	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Support Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Support Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Pipe Lay Vessel	Marine Gas Oil	TBD	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Supply Vessel	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Tug	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Tug	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Tug	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Barge	N/A	N/A	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Barge	N/A	N/A	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Crew Boat	Marine Gas Oil	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Crew Boat	Marine Gas OIl	27.5	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl
@name@	Temporary Working Deck	Diesel	SG ~0.85 @15C	@@@@ m³ @@@@ bbl	@@@@ m³ @@@@ bbl

(*) The modelling of WCD scenarios is based on release of the largest fuel tank.

APPENDIX 7: TECHNICAL MEANS FOR TREATMENT OF INCIDENT

Table 1 : Response Resources Available in Israel

RESPONSE RESOURCES					
DESCRIPTION OF EQUIPMENT			ORGANIZATION		
NAME	QTY	FUNCTION	NAME	LOCATION	RESPONSE TIME, (Hours)
DASIC Slickgone NS (Dispersant)	11,000 L	Dispersant	NEML	Israel - Haifa	12 Hours
Self-arm for self-recovery	1	Containment	MPS	Hadera	4 Hours
Brush or discs skimmer for oil	1	Skimming	MPS	Hadera	4 Hours
Oil bladder 10,000 liters	1	Containment	MPS	Hadera	4 Hours
Inflatable boom 150m	1	Containment	MPS	Hadera	4 Hours
Dispersant spraying kit	1	Dispersant	MPS	Hadera	4 Hours
Dispersant (1 IBC of sea brat)	1	Dispersant	MPS	Hadera	4 Hours
Sea-Brat 4 (Dispersant)	7,000 L	Dispersant	MPS	Ashdod	8-12 Hours
DASIC Slickgone NS (Dispersant)	4,000 L	Dispersant	MPS	Ashdod	8-12 Hours
Dispersant Sprayer System	1	Dispersant	MPS	Ashdod	8-12 Hours
Lamor Brush Skimmer	1	Skimming	MPS	Ashdod	8-12 Hours
Skimmer Hose package	1	Skimming	MPS	Ashdod	8-12 Hours
Boom inflator w/ hoses	2	Skimming	MPS	Ashdod	8-12 Hours
Oil package: Hydraulic, Engine, 2-stroke	1	Maintenance	MPS	Ashdod	8-12 Hours
Skimmer with Changeable Heads	1	Skimming	MPS	Ashdod	8-12 Hours
Field Guides	1	Response	MPS	Ashdod	8-12 Hours
Field PPE	100	PPE	MPS	Ashdod	8-12 Hours
Oil Sorbent Boom / bale	7	Containment	MPS	Ashdod	8-12 Hours
Oil Sorbent Pads 100/bale	10	Containment	MPS	Ashdod	8-12 Hours
Oil Sorbent PomPoms 1/bale	10	Containment	MPS	Ashdod	8-12 Hours
25m towing rope	2	Containment	MPS	Ashdod	8-12 Hours
Towing Shackles	4	Containment	MPS	Ashdod	8-12 Hours
25m – 12mm Nylon Rope	2	Various	MPS	Ashdod	8-12 Hours

RESPONSE RESOURCES					
DESCRIPTION OF EQUIPMENT			ORGANIZATION		
NAME	QTY	FUNCTION	NAME	LOCATION	RESPONSE TIME, (Hours)
200m Offshore Boom, Desmi RO-Clean + cover	1	Containment	MPS	Ashdod	8-12 Hours
Towing bridle set for 200m offshore boom	1	Containment	MPS	Ashdod	8-12 Hours
Lifting slings for offshore boom	1	Containment	MPS	Ashdod	8-12 Hours
Shovel	200	Hand Tools	MPS	Ashdod	8-12 Hours
Rakes	200	Hand Tools	MPS	Ashdod	8-12 Hours
800m open sea Desmi Boom	1	Containment	MPS	Ashdod	8-12 Hours
200m port Desmi boom	1	Containment	MPS	Ashdod	8-12 Hours
275m port Elastec boom	1	Containment	MPS	Ashdod	8-12 Hours
25m Crucial tidal boom	4	Containment	MPS	Ashdod	8-12 Hours
4m^3 temporary storage unit	10	Containment	MPS	Ashdod	8-12 Hours
Transfer Skimmer	2	Shoreline response	MPS	Ashdod	8-12 Hours
Vacuum Skimmer	3	Shoreline response	MPS	Ashdod	8-12 Hours
Dipping Skimmer	1	Shoreline response	MPS	Ashdod	8-12 Hours
PPE for responders	350	Shoreline response	MPS	Ashdod	8-12 Hours
Debris/liquids container	2	Shoreline response	MPS	Ashdod	8-12 Hours
Pressure Washer	2	Shoreline response	MPS	Ashdod	8-12 Hours
Signs	2	Shoreline response	MPS	Ashdod	8-12 Hours
Gazebo	3	Shoreline response	MPS	Ashdod	8-12 Hours
PVC sheeting	5	Shoreline response	MPS	Ashdod	8-12 Hours
Generator	5	Shoreline response	MPS	Ashdod	8-12 Hours
Portable lighting	2	Shoreline response	MPS	Ashdod	8-12 Hours
Desmi Diesel Engine Hydraulic Power Pack Control System	1	Skimming	MPS	ISY	8-12 Hours
Desmi Wire Skimmer + accessories	1	Skimming	MPS	ISY	8-12 Hours
Skimmer Hose Packages (including hydraulic & discharge)	1	Skimming	MPS	ISY	8-12 Hours
Boom inflator with hoses	2	Skimming	MPS	ISY	8-12 Hours

RESPONSE RESOURCES					
DESCRIPTION OF EQUIPMENT			ORGANIZATION		
NAME	QTY	FUNCTION	NAME	LOCATION	RESPONSE TIME, (Hours)
Lifting slings for offshore boom	1	Skimming	MPS	ISY	8-12 Hours
Toolbox w/ multipurpose tools	1	Various	MPS	ISY	8-12 Hours
Dispersant Sprayer System	1	Dispersant	MPS	ISY	8-12 Hours
Field Guides	1	Response	MPS	ISY	8-12 Hours
Field PPE	100	PPE	MPS	ISY	8-12 Hours
Oil Sorbent Boom / bale	13	PPE	MPS	ISY	8-12 Hours
Oil Sorbent Pads 100 / bale	8	PPE	MPS	ISY	8-12 Hours
Oil Sorbent PomPoms 1/ bale	10	PPE	MPS	ISY	8-12 Hours
Wellington Boots	10	PPE	MPS	ISY	8-12 Hours
Towing bridle set for 200m offshore boom	1	Containment	MPS	ISY	8-12 Hours
25m towing rope	2	Containment	MPS	ISY	8-12 Hours
Lashing Chain	4	Containment	MPS	ISY	8-12 Hours
Synthetic sling / lashing	4	Containment	MPS	ISY	8-12 Hours
Towing Shackles	4	Containment	MPS	ISY	8-12 Hours
25m – 12mm Nylon rope	1	Containment	MPS	ISY	8-12 Hours
200m Offshore boom, Desmi Ro-Clean + cover	1	Containment	MPS	ISY	8-12 Hours

Table 2 : Response Resources Available outside Israel

RESPONSE RESOURCES					
DESCRIPTION OF EQUIPMENT			ORGANIZATION		
NAME	QTY	FUNCTION	NAME	LOCATION	RESPONSE TIME, (Hours)
Oil Spill Tracking Buoy - I-Sp	1	1 Offshore Oil Tracking System	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Oil Spill Tracking Buoy - ISMD	1	1 Offshore Oil Slick Tracking System	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Roboom 200m BayBoom	800 m (2,660ft)	Offshore Oil Containment Boom	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Diesel Driven Rope Mop System	1	2 Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Komara 20k Disc Skimmer with Power Pack	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Komara 12k Disc Skimmer with Power Pack	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Komara 7k Disc Skimmer with Power Pack	5	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Vikoma Minivac Vacuum System	5	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Komara 40k Skimmer with Power Pack	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Termite Weir Skimmer with Power Pack	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Terminator Weir Skimmer	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Helix Skimmer	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Fastank – Small	10	Storage of Recovered Oil	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours

Storage Barge	2	Storage of Recovered Oil	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Unitor Oil Bag - Large	1	Storage of Recovered Oil	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Unitor Oil Bag	1	Storage of Recovered Oil	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Sea Sentinel Boom 10 m	370 m (1,230ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Sea Sentinel Boom 20 m	1000 m (3,330ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Shore Guardian Boom 10 m	540 m (1,780ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Shore Guardian Boom 20 m	440 m (1,465ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Troil Boom GP 750 (20m)	80 m (265ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Manama, Kingdom of Bahrain	24-36 Hours
Sea Sentinel Boom 10 m	900 m (3,000ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Sea Sentinel Boom 10 m	570 m (1,900ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Sea Sentinel Boom 20 m	4,320 m 14,380ft	Inshore Oil Containment Boom	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Sea Sentinel Boom	1,720 m 5,643ft	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Sea Sentinel Boom Air/Skirt	800 m (2,625ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Shore Guardian Boom 10 Sec	440 m (1,444ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Shore Guardian Boom 10 Sec	550 m (1,804ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Shore Guardian Boom 20 Sec	1,820 m 5,971ft	Inshore Oil Containment	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Shore Guardian Boom 20 M	660 m (2,200ft)	Inshore Oil Containment	Oil Spill Response Ltd	Singapore	36-48 Hours

Troil Boom Gp1100	550 m (1,830ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Supermax - Rigid Boom	650 m (2,160ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Sea Curtain - Foam Filled In 5	700 m (2,330ft)	Inshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Roboom 200 M Bay Boom	2,600 m 8,650ft	Offshore Oil Containment Boom	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Roboom 200 Meters Bay Boom	1,600 m 5,320ft	Offshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Hi Sprint Rapid Boom With Reel	300 m (1,000ft)	Offshore Oil Containment Boom	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Hi Sprint Rapid Boom With Reel	600 m (2,000ft)	Offshore Oil Containment Boom	Oil Spill Response Ltd	Singapore	36-48 Hours
Diesel Driven Rope Mop System	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Diesel Driven Rope Mop System	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Diesel Driven Rope Mop System	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Diesel Driven Rope Mop System	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Singapore	36-48 Hours
Diesel Driven Rope Mop System	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Komara 20k Disc Skimmer Inc Power Pack	3	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Komara 12k Disc Skimmer Inc Power Pack	4	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Komara 7k Disc Skimmer Inc Power Pack	12	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Komara 7k Disc Skimmer Inc Power Pack	12	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Komara 7k Disc Skimmer Inc Power Pack	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Singapore	36-48 Hours

Elastec Combi Drum Skimmer Inc	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Elastec Combi Drum Skimmer Inc	2	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Singapore	36-48 Hours
Vikoma Minivac Vacuum System	5	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Vikoma Minivac Vacuum System	3	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Singapore	36-48 Hours
Roclean Minivac Vacuum System	9	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Roclean Minivac Vacuum System	9	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Singapore	36-48 Hours
Delta Skimmer - Weir Skimmer	3	Recovery of Oil from Onshore	Oil Spill Response Ltd	Singapore	36-48 Hours
Slickdisc MK- 13 Interchangeable	3	Recovery of Oil from Onshore	Oil Spill Response Ltd	Singapore	36-48 Hours
Egmolap Belt Skimmer Inc Power	1	Recovery of Oil from Near-Shore	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Ro-Skim System, Tandem, 120tph	2	Offshore Oil Containment	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Ro-Skim System, Tandem, 120tph	2	Offshore Oil Containment	Oil Spill Response Ltd	Singapore	36-48 Hours
2 Pump Weir Boom Capacity 120	1	Offshore Oil Containment	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Nofi Harbour Buster	4	Offshore Oil Containment	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Nofi Harbour Buster	4	Offshore Oil Containment	Oil Spill Response Ltd	Singapore	36-48 Hours
Komara 40k Skimmer with Power	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Komara 40k Skimmer with Power	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Desmi DS250 Skimmer with Power	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Desmi DS250 Skimmer with Power	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Ro-Disc Attachment for DS250	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours

GT185 Weir Skimmer with Power	4	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
GT185 Weir Skimmer with Power	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Termite Weir Skimmer with Power	4	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Termite Weir Skimmer with Power	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Termite Combi System Brush	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Termite Combi System Brush	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Terminator Weir Skimmer	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Terminator Combi System Brush	1	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Marflex Sweep - Arms Large Vol	2	Offshore Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
WP 130 Drum Skimmer With Power	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
WP 130 Drum Skimmer With Power	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Rotodrum With Power Pack	2	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Sea Devil Skimmer with Power	3	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Sea Devil Skimmer with Power	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Helix Skimmer	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
EARL Vessel Bow Skimmer	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Scan Trawl System	1	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours

Scan Trawl System	2	Offshore Heavy Oil Recovery System	Oil Spill Response Ltd	Singapore	36-48 Hours
Ro-Tank Storage	6	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Fastank	63	Storage of Recovered Oil	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Fastank	23	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Fastank	4	Storage of Recovered Oil	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Storage Barge	4	Storage of Recovered Oil	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Storage Barge	5	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Storage Barge	6	Storage of Recovered Oil	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Storage Barge	2	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Unitor Oil Bag	1	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Unitor Oil Bag	3	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Waste Containment Tank	10	Storage of Recovered Oil	Oil Spill Response Ltd	Singapore	36-48 Hours
Oil Spill Tracking Buoy - I-Sp	1	Offshore Oil Slick Tracking System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Oil Spill Tracking Buoy - I-Sp	1	Offshore Oil Slick Tracking System	Oil Spill Response Ltd	Singapore	36-48 Hours
Oil Spill Tracking Buoy – Ismd	2	Offshore Oil Slick Tracking System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Oil Spill Tracking Buoy – Ismd	2	Offshore Oil Slick Tracking System	Oil Spill Response Ltd	Southampton, United Kingdom	36-48 Hours
Oil Spill Tracking Buoy – Ismd	2	Offshore Oil Slick Tracking System	Oil Spill Response Ltd	Singapore	36-48 Hours
Ro-Clean Desmi Termite Skimmer	2	Skimmer	NRC	Thailand	24-36 Hrs
Ro-Clean Desmi Termite Skimmer	2	Skimmer	NRC	Malta	24-36 Hrs
Ro-Clean Termite Skimmer/Brush	2	Skimmer	NRC	Thailand	24-36 Hrs
Ro-Clean Terminator Skim/ Power Pack	1	Skimmer	NRC	UK	24-36 Hrs
Ro-Clean Terminator Skim/Power Pack	1	Skimmer	NRC	Trinidad	24-36 Hrs
RBS 10 Twin Skimming Sys	1	Skimmer	NRC	Georgia	24-36 Hrs

Crucial ORD Disk Skimmer	1	Skimmer	NRC	Trinidad	24-36 Hrs
Crucial Oleophilic Drum Skimmer	1	Skimmer	NRC	Thailand	24-36 Hrs
Lamor Minimax 60 Brush Skim	2	Skimmer	NRC	Thailand	24-36 Hrs
Lamor Minimax 30 Brush Skim	1	Skimmer	NRC	Thailand	24-36 Hrs
MINIVAC System Complete	1	Skimmer	NRC	Georgia	24-36 Hrs
Ro-Vac Mini Sys w/Transfer Pump	2	Skimmer	NRC	UAE	24-36 Hrs
Ro-Tanker 2000 Rd Portable Vacuum	1	Skimmer	NRC	UAE	24-36 Hrs
KOMARA 40 Skimming System	1	Skimmer	NRC	Kazakhstan	24-36 Hrs
Foilex TDS 250 Skimming System	1	Skimmer	NRC	Kazakhstan	24-36 Hrs
KOMARA 20 Skimming System	1	Skimmer	NRC	Georgia	24-36 Hrs
KOMARA 20 Skimming System	1	Skimmer	NRC	UK	24-36 Hrs
Ro-Clean OM140D Rope Mope-Portable	1	Skimmer	NRC	UK	24-36 Hrs
Manta Ray Head w/ Pump	1	Skimmer	NRC	Trinidad	24-36 Hrs
Vikoma Delta Head 2" w/ Pump	1	Skimmer	NRC	Georgia	24-36 Hrs
Inflatable Sweep Boom 1100MM X 450M	1	Boom	NRC	Kazakhstan	24-36 Hrs
High Sprint Ocean 250M Unit	2	Boom	NRC	Kazakhstan	24-36 Hrs
High Sprint Ocean 250M Unit	3	Boom	NRC	Thailand	24-36 Hrs
High Sprint Ocean 250M Unit	2	Boom	NRC	Malta	24-36 Hrs
High Sprint Ocean 250M Unit	2	Boom	NRC	Trinidad	24-36 Hrs
High Sprint Ocean 150M Unit	1	Boom	NRC	Thailand	24-36 Hrs
MEKE Fence Boom Foam 1200MMx25m	140	Boom	NRC	UAE	24-36 Hrs
Shore Guardian Boom 550MMx15m	4	Boom	NRC	UAE	24-36 Hrs
Shore Guardian Boom 550MMx10m	13	Boom	NRC	Thailand	24-36 Hrs
Shore Guardian Boom 550MMx10m	24	Boom	NRC	UAE	24-36 Hrs
Inflatable Sweep Boom 1400MMx3M	2	Boom	NRC	Trinidad	24-36 Hrs
Solid Sweep Boom 800MMx15M Sec	2	Boom	NRC	Trinidad	24-36 Hrs
Solid Buoyancy Boom 800MMx15M	10	Boom	NRC	Trinidad	24-36 Hrs
Solid Buoyancy Boom 1200MMx15M	10	Boom	NRC	Thailand	24-36 Hrs
Solid Buoyancy Boom 450MMx25M	15	Boom	NRC	UAE	24-36 Hrs
Solid Buoyancy Boom 750MMx25M	16	Boom	NRC	UAE	24-36 Hrs
Solid Buoyancy 750MMx30M	14	Boom	NRC	Georgia	24-36 Hrs

Solid Buoyancy 750MMx30M	20	Boom	NRC	Trinidad	24-36 Hrs
Portable Alum Barge 2-40'x8' Sec	1	Storage	NRC	UAE	24-36 Hrs
Canflex Tow Bladder 15 Cubic m	4	Storage	NRC	Thailand	24-36 Hrs
Canflex Tow Bladder 15 Cubic m	3	Storage	NRC	Trinidad	24-36 Hrs
Canflex Pillow Tank 10m3	1	Storage	NRC	Georgia	24-36 Hrs
Flexitank 34m3	4	Storage	NRC	Trinidad	24-36 Hrs
Portable Tank 1 Ton	1	Storage	NRC	Georgia	24-36 Hrs
Pillow Tanks 12m3	4	Storage	NRC	Thailand	24-36 Hrs
Pillow Tanks 4m3	13	Storage	NRC	Thailand	24-36 Hrs
Open Top Tanks 11m3	5	Storage	NRC	Thailand	24-36 Hrs
ISO Tank 17.5m3	7	Storage	NRC	UK	24-36 Hrs
ISO Tank 21m3	3	Storage	NRC	UK	24-36 Hrs
Fastank 2000 10T (Complete)	1	Storage	NRC	Georgia	24-36 Hrs
Fastank 2000 10T (Complete)	1	Storage	NRC	Thailand	24-36 Hrs
Fastank 2000 10T (Complete)	10	Storage	NRC	UK	24-36 Hrs
Ro-Tank 25m3 Floating Bladder	2	Storage	NRC	Malta	24-36 Hrs
Ro-Tank 50m3 Floating Bladder	1	Storage	NRC	UAE	24-36 Hrs
Vikoma 25T Floating Tanks	3	Storage	NRC	UAE	24-36 Hrs
Vikoma 25T Floating Tanks	2	Storage	NRC	Kazakhstan	24-36 Hrs
Vikoma 25T Floating Tanks	2	Storage	NRC	Thailand	24-36 Hrs
Overpack Drums 360 lbs	16	Storage	NRC	Thailand	24-36 Hrs
Overpack Drums 420 lbs	4	Storage	NRC	Thailand	24-36 Hrs
SCBA Set & Cylinder Per Day	10	PPE	NRC	Thailand	24-36 Hrs
Spare Cylinder Per Day	23	PPE	NRC	Thailand	24-36 Hrs
Filter Mask, Full Face Per Day	12	PPE	NRC	Thailand	24-36 Hrs
Lvl A Suit Reusable Zytron 500	6	PPE	NRC	Thailand	24-36 Hrs
Tychem TK Suit Level A ea	3	PPE	NRC	Thailand	24-36 Hrs
Lvl BC Suit Chemmastr Zy 400	9	PPE	NRC	Thailand	24-36 Hrs
Nitrite Gloves (if reusable)	60	PPE	NRC	UAE	24-36 Hrs
Chemical Boots (Bata Hasmax)	12	PPE	NRC	Thailand	24-36 Hrs
Ro-Clean Desmi Dop 250 Transfer	1	Pump	NRC	UAE	24-36 Hrs
Ro-Clean Desmi Dop160 Transfer	2	Pump	NRC	UAE	24-36 Hrs
Alfa Laval Pentastic Pump	2	Pump	NRC	Thailand	24-36 Hrs
Selwood Spate Pump PD75	2	Pump	NRC	Thailand	24-36 Hrs
Kato 2"x2" Centrifugal Pump	4	Pump	NRC	Thailand	24-36 Hrs
Diaphragm Pump (Wilden)	2	Pump	NRC	Thailand	24-36 Hrs
Diaphragm Pump (Wilden)	1	Pump	NRC	UAE	24-36 Hrs
Transfer Pump	3	Pump	NRC	Georgia	24-36 Hrs

Water Pump	4	Pump	NRC	Georgia	24-36 Hrs
Water Pump	2	Pump	NRC	UAE	24-36 Hrs
Spate Pump w/ Power Pack	1	Pump	NRC	Georgia	24-36 Hrs
Spate Pump w/ Power Pack	6	Pump	NRC	UAE	24-36 Hrs
Air Driven Pump Chem Resis, SS	1	Pump	NRC	Thailand	24-36 Hrs
Air Driven Poly Pump ChemResis	1	Pump	NRC	Thailand	24-36 Hrs
Portable Blowers Inflating Boom	1	Pump	NRC	Georgia	24-36 Hrs
Side Sweep Outrigger 10M	1	Support	NRC	UK	24-36 Hrs
Side Sweep Outrigger System 10M Jib	1	Support Equipment	NRC	Trinidad	24-36 Hrs
Hot Pressure Washer	3	Support Equipment	NRC	UAE	24-36 Hrs
Anchor Kit Comp 50 -10, 50 - 20kg	100	Support Equipment	NRC	UAE	24-36 Hrs
VHF Radios	3	Support Equipment	NRC	Thailand	24-36 Hrs
Site Control Package	1	Support Equipment	NRC	UK	24-36 Hrs
Decontamination Package	1	Support Equipment	NRC	UK	24-36 Hrs
4x4 Vehicle	2	Vehicle	NRC	Kazakhstan	24-36 Hrs
Gazel Truck 4x4	1	Vehicle	NRC	Kazakhstan	24-36 Hrs
Gazel Truck 4x2	1	Vehicle	NRC	Kazakhstan	24-36 Hrs
Comms Caravan	1	Vehicle	NRC	UK	24-36 Hrs
HIAB Truck	1	Vehicle	NRC	Kazakhstan	24-36 Hrs
Multigas Detector Per Day	2	Monitoring Equipment	NRC	Thailand	24-36 Hrs
PH Meter	1	Monitoring Equipment	NRC	Thailand	24-36 Hrs
Photo Ionization Detector	1	Monitoring Equipment	NRC	Thailand	24-36 Hrs
Draeger Pump	1	Monitoring Equipment	NRC	Thailand	24-36 Hrs
Apex RIB 6m	1	Vessel	NRC	UK	24-36 Hrs
Dispersant Dasic, Slickgone NS x 1m3	10	Dispersant System	NRC	UAE	24-36 Hrs
Inductor Kit for V/L Fire Sys	2	Dispersant System	NRC	Trinidad	24-36 Hrs
Ayles Feme Boat Spray Set	1	Dispersant System	NRC	Trinidad	24-36 Hrs

Table 3 : Tier 1 Response Vessels Storage Capabilities of Recovered Oil.

Vessel Name	Storage Capacity
Danchor 2	10m³ oil bladder
Danchor 4	10m³ + 25 m³ oil bladder
Danchor 6	80m³
Danchor 7	100m³
Barge	100m³

* Additional storage vessels will be requested from the MoEP and RCC to meet necessity.

APPENDIX 8: MOEP SPILL REPORT AND DISPERSANT APPROVAL FORM

SPILL REPORT AND DISPERSANT APPROVAL FORM

The following information should be reported to the Israel authorities at _____ as soon as possible upon learning of an oil spill. Reporting should not be delayed to obtain all of the information below, but immediately reported and followed up as additional information is obtained.

1. **CALLER:**
   Time of Initial Call: Date: _____/_____/_____ Local Time: _____
   Month Day Year
   Name of Caller: _____ Telephone #: _____
   Company Name: _____
   Street: _____
   City: _____

2. **SPILL INFORMATION:**
   Initial Time of Spill: Date: _____/_____/_____ Local Time: _____
   Month Day Year
   Spill Location: LATITUDE: _____N LONGITUDE: _____E
   Type of Release: [(Instantaneous ( ) or Continuous Flow ( )]

   Oil: Name: _____ API _____

   Estimated Amount Spilled: _____ Metric Tonnes _____ Gallons

   Flow Rate, if Continuous Flow (Estimate): _____

3. Is the oil in an area where dispersants may be applied? _____ YES _____ NO
   (Note: May attach chart showing spill location)

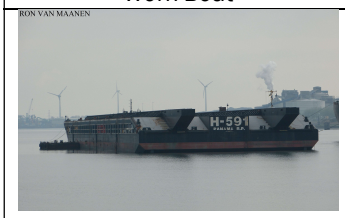
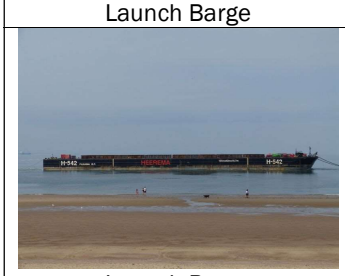
4. Is the oil dispersible? _____ YES _____ NO
   (Note: May provide test results of effectiveness or may request trial application to determine effectiveness.)

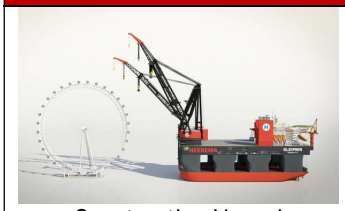
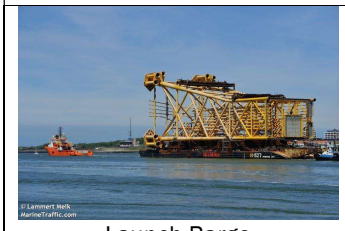
5. **DISPERSANT APPLICATION APPROVED : YES _____NO _____**

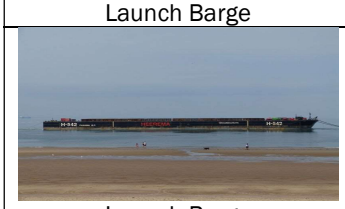
   Ministry of Environmental Protection Signature: _____
   Date _____

APPENDIX 9 – INSTALLATION PROJECT CONTACT LIST

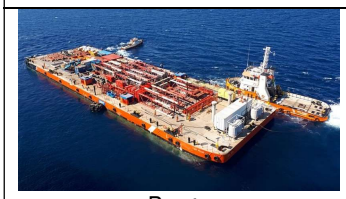
INSTALLATION PROJECT CONTACT DETAILS	
Incident Command Center	
NEML Incident Command Center (ICC)	Noble Energy Mediterranean Ltd. Building D of the Ackerstein Towers 12 Abba Eben Herzliya, Israel OSC: @phone@
LPP Phase 1 - Jacket Installation Vessels	
 Deepwater Construction Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **Radio Frequency:** Channel @@@@ - Distress, safety and calling Channel@@@@ – Inter-ship navigation (bridge-to-bridge) **Vessel Iridium:** @@@@ (Emergency Use Only) **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @@@@ **Call Sign:** @phone@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **Vessel Iridium:** @@@@ (Emergency Use Only) **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **Vessel Iridium:** @@@@ (Emergency Use Only) **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **Vessel Iridium:** @@@@ (Emergency Use Only) **POB:** @@@

 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **Phone:** @phone@ **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Launch Barge	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A
 Launch Barge	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A
TBD Security Vessel	**Name:** M/V TBD **IMO:** **Call Sign:** **Bridge:** **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:**

Phase 2 – Topsides & Commissioning Vessels	
 Construction Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigaton (bridge-to-bridge) **Phone:** @phone@ **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@) – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **Phone:** @phone@ **POB:** @@@
 Work Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUECY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Launch Barge	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A

 Cargo Pontoon	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A
 Launch Barge	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A
 Launch Barge	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A
Legend: NO – Norway, NL – Netherlands, BE – Belgium, CY – Cyprus, IL – Israel, US, United States	

Leviathan Sub Sea Work Vessels	
 Umbilical Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship naviation (bridge-to-bridge) **POB:** @@@
 Supply Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel@@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Supply Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Umbilical Installation Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Supply Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel@@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@

 Supply Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and caling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Supply Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Supply Vessel	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel@@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** TBD
 Tug	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel@@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** TBD
 Tug	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel@@@@ - Distress, safety and calling Channel@@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** TBD
 Barge	**Name:** @name@ **IMO:** @phone@ **Call Sign:** N/A
Unavailable Barge	**Name:** @name@ **MMSI:** @@@@

 Crew Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** TBD **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and caling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** @@@
 Crew Boat	**Name:** @name@ **IMO:** @phone@ **Call Sign:** @@@@ **Bridge:** @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigtion (bridge-to-bridge) **POB:** @@@
Oil Spill Response Vessel Options	
 Oil Spill Vessel	**Name:** M/V Tosca 1 **MMSI:** @phone@ **Call Sign:** @@@@ **Vessel Type:** Service Vessel **Contact**: @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and callig Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** 54 **E-mail:** @@@@
 Oil Spill Vessel	**Name:** M/V Danchor VI **IMO:** @phone@ **Call Sign:** @@@@ **Vessel Type:** Fire Fighting Vessel **Contact**: @phone@ **RADIO FREQUENCY:** Channel @@@@ - Distress, safety and calling Channel @@@@ – Inter-ship navigation (bridge-to-bridge) **POB:** 12 **E-mail:** @@@@
 Oil Spill Vessel	**Name:** M/V Danchor V **MMSI:** @phone@ **Call Sign:** @@@@ **Vessel Type:** Tug **Contact**: @phone@ **RADIO FREQUENCY:** Channel @@@@- Distress, safety and calling Channel @@@@ – Inter-ship navigaton (bridge-to-bridge) **POB:** 6 **E-mail:** @@@@

 Oil Spill Vessel	**Name:** M/V Danchor IV **MMSI:** @phone@ **Call Sign:** @@@@ **Vessel Type:** Dive Vessel **Contact**: @phone@ **RADIO FREQUENCY:** Channel @@@@- Distress, safety and calling Channel @@@@ – Inter-ship navigaton (bridge-to-bridge) **POB:** 12 **E-mail:** @@@@
 Oil Spill Vessel	**Name:** M/V Danchor II **Vessel Type:** Service Vessel **Contact**: @phone@ **E-mail:** @@@@
Installation MEDEVAC Contractor	
Installation Support Helicopter(s)	**Name:** @company@ **Aircraft Type:** Helicopter **PHONE:** @phone@ **RADIO FREQUENCY:**@@@@ **Model:** @@@@ **CALL NUMBER:** @phone@ **MAX POB:** 12 Passengers + 2 Pilots **Model:** @@@@ **CALL NUMBER:** @phone@ **MAX POB:** 12 Passengers + 2 Pilots
Nearest Manned Structure	
Nearest Manned Offshore Structure	**Nearest Manned Structure:** Tamar Platform **Operator:** Noble Energy **Lat:** @@@@ **Long:** @@@@ **Distance to Tamar Platform:** ~150 Kilometers **Direction to Tamar Platform:** SSE

APPENDIX 10 – TIER 3 OIL SPILL RESPONSE SUPPORT OPTIONS

Both Oil Spill Response Limited (OSRL) and National Response Corporation (NRC) provide on call services to NEML for a global response to a pollution event in the Mediterranean. The services and equipment are available to the NEML IC as part of our ongoing agreement and does not require any additional approvals. Together these include:

- Standby services to be on call for response
- Training and consultancy for SMT and response
- Logistical support for on-time delivery of equipment
- In-country training in the deployment and operation of spill equipment
- Offshore booming and skimming operations
- Nearshore booming and skimming operations
- SCAT survey and shoreline operation support
- Waste Management Program support
- Dispersant application and management
- In-situ burn application and support
- Manpower support for each of these items

OSRL provides additional Tier 3 enhanced services. These include:

- Access up to fifty percent of the Global Dispersant Stockpile, which includes
  - Dasic Slickgone NS (State of Israel approved)
  - Finasol OSR 52 (State of Israel approved)
  - Corexit EC9500A (not State of Israel approved)
- Technical Advice for the Spill Management Team and logistical support
- Access up to fifty percent of the of the equipment stockpile available at the time of the request. Additional equipment may be considered for release upon request.
- Oil Spill Trajectory and Tracking
- Satellite Surveillance
- Oiled Wildlife technical advice

APPENDIX 11 – LPP & LEVIATHAN FIELD PROJECT TIMELINE

Leviathan Sub-Sea Work Vessels							
Vessel Name*	Type of Vessel	Scope of Work	Work Locations	Nominal Dates**			Estimated Period in Israel
@@@@	Umbilical Installation Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Pipelay Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Diving & ROV construction vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Heavy Lift Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Umbilical Installation Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Jacket Support Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Dewatering Support Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Supply Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Crew Boat	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Crew Boat	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	ROV Construction Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
Phase 1 - LPP Jacket & Top Side installation							
@@@@	Installation Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Jacket Support Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Security Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
Phase 2 - LPP Jacket & Top Side installation							
@@@@	Construction Vessel	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Tug	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days
@@@@	Barge	@@@@	@@@@	@@@@	to	@@@@	@@@ days

*Vessels may be interchanged due to schedule slip ** Dates are best estimate and may change