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FRIGG/CDP1-1 DECOMMISSIONING

Final report

Tie-in & Construction department

CDP1 DECOMMISSIONING

FINAL REPORT

Issued by : Tie-in and Construction Department, B. Hegrum, January 1991
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Content

1. INTRODUCTION

1.1 SUMMARY

In March 1990, a group was formed with the responsibility to perform the work required to ensure the safe and expedient close down and decommissioning of CDP-1. The group consisted of members from Tie-in & Construction Department (TCD), Production Department (PD) and Drilling & Completion Department (DCD), and should serve as a coordination forum for the different activities to be undertaken. (Enclosure 1.1.1).

The responsible entities for the tasks were:

- DCD - abandonment of wells
- PD - steaming/gas freeing
- TCD - removal and preparing for final status.

This report covers only the work done directly under the responsibility of TCD.

The work was started early March 1990 by initiating the planning/preparation of the offshore work. A project engineer was appointed. He was given the responsibility for preparation of work task sheets, and the detailed planning required to achieve the target.

The basis for the offshore work is given in the report "Manual for Decommissioning of the CDP-1 Platform", issued by Production Department in November 1989. The manual contains both planning and a cost estimate for the work. The planning presented assumed stop of production from CDP-1 late August 1990 and final wells abandonment to be completed in October 1990. The cost was estimated to KNOK 30.000,-, including contingency.

During the cause of the well plugging campaign which had started in January 1990, it became clear that the work progressed much faster than originally planned, and that the planning as given in the Manual could not be followed. The start of the offshore decommissioning work would be much earlier than foreseen. This had as a consequence that the preparation time for the offshore work became much shorter than anticipated.

Originally, the intention had been to give the offshore work to a Contractor on a lump sum basis, but because of the short preparation time it was not possible to detail all the tasks to a sufficient level. It was therefore decided to issue a call for tender for the offshore work as a combination of lump sum and reimbursable work.

Tenders were issued in May 1990, and the Contract was awarded to Aker Maintenance in the middle of June.

During this time, close contact was kept by the members of the Coordination group, and TCD was at all times kept informed of the progress of drilling. It had been decided that TCD should start the offshore work after the completion of the wells abandonment campaign, as this would enable TCD to quarter personnel on CDP-1 instead of shuttling from other platforms.

The wells abandonment campaign was completed in the middle of June 1990, and for planning reasons it was decided that TCD should start the offshore work 2nd July.

During the preparation phase, contact was taken with both the British authorities and the Certifying Authority (DnVC) in order both to inform them about the planned work with CDP1 decommissioning, and to discuss the best way to ensure compliance with rules and regulations during and after this phase. Regular meetings were held with Department of Energy (DEn), Department of Transport (DOT) and DnVC, and we where complimented for the way we treated this matter.

2. PREPARATION

2.1 STUDIES DONE

2.1.1 Introduction

A study was initiated with Aas-Jakobsen A/S (AAJ) in order to evaluate the consequence of leaving the conductor guide frames (CGF's) and 5 casings in position, after the platform have been decommissioned.

There are four CGF's on CDP1, all located inside breakwater wall on the southern side of the platform (Cell C and D), 2 at elevation + 91.3m and 2 at elevation + 73.3 m (Fig. 2.1 and 2.2). The two CGF's at elevation + 91.3 m have been previously repaired due to fatigue cracking in the supports.

The five casings (2 off 30" fire water casings and 3 of 24" sea water risers) were cut above anchor support AT + 104 m as part of the decommissioning programme, leaving vertical sections of 35 m in position. (Fig. 2.3). The aim of the study was to evaluate the consequence of casing support failure.

The central core on CDP1 has been empty during the production phase. For the decommissioned phase, it could be an advantage to fill central core. Various studies have been performed to evaluate this.

2.1.2 Conclusion

Based upon the results of the analysis (Ref. 1) it was concluded that both conductor guide frames (CGF) at elevation + 91.3 m had to be removed. The two CGF's at elevation + 73.3 m, and the five casings could be left in position without being a threat to the structure.

Based upon the results of an evaluation made by AAJ (Ref. 2) and various internal studies it was decided to flood CDP1 central core.

2.1.3 Conductor guide frame

The fatigue problems on the conductor frame support detected in 1985 were caused by vertical wave action. The weight in air of the CGF's are around 45 ton while the weight in water is 13 ton. The max vertical wave force is around 90-95 ton giving important cyclic stresses, which caused the fatigue cracks in the corbel fixed supports. (Ref. fig. 2.2). The supports were reinforced locally in 1985, and a vertical member installed in order to absorb some of the vertical forces. These repairs have been effective, and have reduced the stress variations at the critical intersections with 65%.

Still the remaining stresses were by AAJ considered important enough, that fatigue failure could occur in the future. The fatigue failure will occur in the corbel fixed supports. The CGF will then probably drop off all the four supports. Depending on the weather conditions the vertical 20" brace might be strong enough to support the whole CGF. If the CGF is supported by this 20" brace, the waves will move it as a pendulum, and cause local damage to the concrete structure. If the vertical brace fails, the CGF will drop down onto the CGF 18m below or down on the stabilizing soil. This event will most likely cause local damage to the concrete structure.

Considering the above potential consequences; the fact that future removal would be much more complex, and to be in line with the level of equipment removal which were performed topside, it was decided to remove the two CGF's at + 91.3 m. The two lower CGF's were not supposed to cause any harm to the structure and were therefore left in position.

2.1.4 Utility casings

The two 30" firewater risers and the three 24" sea-water risers (fig.2.1 and 2.3) were all cut at above anchor flange at elevation + 107 leaving 35 m of pipe in a vertical position. All risers are terminated by subsea pumps at elevation + 65-68m. The risers are anchored at elevation + 104 and + 70 m, and guided at two intermediate locations. Based upon previous inspection results it could be concluded that the risers and their supports as per 1990 were in a satisfactorily condition.

Failure in the future could be caused by corrosion or fatigue. The most likely failure event is failure in the bolts between support and breakwater wall. However even if the complete risers drops (weights 34 tons in air) in a very unfavourable direction, the possible impact is not considered important enough to cause any major damage to the structure.

The utility risers can be kept in position.

2.1.5 Central Core

The CDP1 central core was originally designed to be water-filled and anodes have therefore been installed at various critical locations. During the production phase the central core has not been flooded.

In the decommissioning phase the platform will be "dead", however various lines R5 and R6 26" and J4 and J5 4" and 8" respectively, will be used for nitrogen and air storage.

The central core including anodes and the various J-tubes and risers have in the past been regularly inspected from the inside. Considering this historic information and based upon an evaluation of the present condition it was concluded that there was no need for any regular work inside the central core during decommissioning mode, even through some of the J-tubes/risers still are in use.

The anodes in the central core are estimated to have a remaining life of 18 years (Ref. 3).

With respect to the concrete structure it was concluded that the additional pressure/stresses induced by an extra weight of 6000 ton would not influence the overall integrity of the platform (Ref. 2).

The foundation stability is improved by additional weight added to the platform.

Based upon the above it was concluded that the central core could be safely filled with water, and that this would be an advantage.

References

1. "Frigg CDP1 decommissioning conductor guide frame integrity" Aas Jakobsen report 4426/ANB-1/AHN dated 06.06.90.

2. "Definition of critical areas for the decommissioning inspection programme" AAJ report 106-90 (EAN-16) dated 16.08.90.

3. "CDP1 decommissioning, corrosion in J-tubes ad tunnel caisson" Eng. Dept. report 91004 I dated May 1990.

2.2 ENGINEERING BY EAN

Nav aid system on CDP1

Installation:
The two existing 10 nm Tideland lanterns have been re-connected and are in addition to the obstruction light the only electrical operating system on the platform. The two 10 nm lanterns and the obstruction light are all poured from three separated units which include solar cells and batteries. One 10 nm lantern are located on the NW corner of the platform, one 10 nm light on the SE corner and the obstruction light on the top of the rig office module.

Operational experience:
Due to the short operating time so far, the experience with the system is limited.
During the time it has been in operation, there have not been reported any failure or problems.

2.3 ENGINEERING BY CONTRACTOR

Contractor was responsible for all detail engineering which was necessary for proper execution of the work, except for those tasks which specifically described that engineering would be performed by Company.

Beside the welding procedures, Contractor prepared the following procedures:

- SP017 - Procedure for Removal of MK60 Crane
- SP018 - Procedure for Removal of National Crane
- Procedure for Removal of Diving Module
- SP013 - Procedure for Installation of New Walkway Bridge
- SP011 - Procedure for Removal of Flare Booms
- SP010 - Dismantling Procedure for CDP1 Derrick.

All these procedures were reviewed internally in Elf by Safety Department and approved by TCD.

2.4 OFFSHORE WORK TASKS

2.4.1 Introduction

The offshore decommissioning work was performed using the task sheet system. The raising of the sheets were based on the documentation which was formulated by Production Department, titled "CDP1 Decommissioning Manual", dated 23.1..89.

2.4.2 Structure of Tasks

The tasks were divided into seven separate systems, namely:

- 10 series - Pipeline/Riser
- 20 series - Drilling Equipment
- 25 series - Production Facilities
- 35 series - Secondary Structure
- 40 series - Utilities
- 45 series - Electrical Equipment
- 50 series - Safety Equipment.

Each system was in turn sub-divided into a sub-system and a symbol in the task number was included to indicate the type of trade which was to be performed, e.g.:

- M - Mechanical
- P - Piping
- S - Structure
- SF - Structure Fabrication (onshore prefab)
- I - Instrument
- E - Electrical.

An example of a task number is listed below:

40 M 005 - "MK 60 CRANE REMOVAL"

Mechanical Title

Utilities System Sequence Number

A description of the work to be performed along with the relevant drawings accompanied each task sheet, see attached task sheet for Task No. 40M005, enclosure 2.4.2.1.

2.4.3 Contractual

These task sheets were drawn-up into a task list which was first included in the call for tender documents and also in the final award of contract documents.

Prior to the immediate commencement of the offshore decommissioning works, a small number of the tasks were revised in order to accommodate a number of inclusions, e.g. updated drawings, changes in the scope of work and other diverse information which had arisen.

In case of discrepancies occurring between a task sheet and a drawing and/or a specification, the drawing and/or the specification respectively should prevail.

Man-hours estimate was based on estimation by EAN
Man-hours actual was based on logged man-hours on each task.
A task was not considered 100% completed before the documentation related to the task was approved and all signatures received.

In cases where Contractor identified additional activities which was not covered by the task sheets, a Variation Order Request was raised according to Contract Administration Procedure.

A total of 23 Variation Orders were issued throughout the whole project.
For examples of Variation Order and Variation Order Request, see enclosures 2.4.2.2 and 2.4.2.3.

2.5 PLANNING

2.5.1 Company planning

The Company prepared the overall planning for the entire project, including tasks to be carried out by Production Department and Maintenance Department. The planning was prepared in two different levels:

Level 1 - Overall master schedule split by system
Level 2 - Bar chart at task level.

See enclosed example : 2.5.1.1. - 2.5.1.7.

Phase 1 was defined as the period from abandon of all wells and up to closure of living quarter, primo September 1990.

Phase 2 was defined as the period from closure of living quarter and up to end of decommissioning works, primo November 1990.

2.5.2 Contractor Planning:

Contractor based his planning on Company's level 1 planning, but included mainly the tasks that were part of his work.

Contractor's level 2 planning was based on task level, defining the sequence and time limit of each task.

Based on this planning a planned S-curve was established.

See enclosed example on Contractor planning: 2.5.2.1. to 2.5.2.5.

2.6 CONTRACTOR SELECTION

In order to select a contractor for the CDP1 decommissioning work offshore, a call for tender was issued to:

- OMM Group, Stavanger
- Aker Maintenance A/S, Stavanger
- Maritime GMC. Stavanger
- Unifab, Bodø.

The tender covered all offshore works on CDP1, TP1 and TCP2, consisting of 126 tasks reimbursable and lump sum.

The tenders were received 11.06.90 at 15.00 hrs. One contractor declined (OMM). The detailed technical evaluation confirmed that all three tenders were technically acceptable.

The tender with the lowest price, Aker Maintenance A/S was called in for technical/contractual/ commercial clarification meeting 13.06.90. After the meeting, all outstanding items were clarified and the contract was awarded Aker Maintenance.

See enclosed commercial evaluation, Enclosure 2.6.1.

3. OFF-SHORE WORK

3.1 ORGANIZATION

3.2 DETAILED PLANNING

3.3 PROGRESS OF OFF-SHORE WORK

3.4 SAFETY DURING OFF-SHORE WORKS

3.5 STATUS OF CDP1 AFTER DECOMMISSIONING

3. OFF-SHORE WORK

3.1 ORGANIZATION

3.1.1 Introduction

Aker Maintenance Stavanger A/S (A.M.S) was awarded the contract to perform the off-shore works in connection with the CDP1 decommissioning project. Work commenced onboard CDP1 2 July 1990 and was completed 8 November 1990 when the remaining equipment was evacuated by helicopter.

3.1.2 Organization of Phases 1 & 2

The off-shore work was organized into two distinct phases in order to cope with the availability of living quarter accommodation.

3.1.2.1 Phase 1 covered the period from 2 July 1990 to 3 September 1990 when the CDP1 living quarter accommodation was in use and a normal platform manning crew was onboard. At this stage CDP1 was considered a "manned platform" with all facilities in operation (except gas production).

3.1.2.2 Phase 2 commenced 4 September 1990 when the living quarter accommodation was closed and the normal platform manning crew was demobilized. At this stage CDP1 was considered an "unmanned platform" with all personnel being shuttled to CDP1 in the morning (07:00) and returning to their respective accommodation platforms with the evening shuttle (19:00).

3.1.3 Core Team

In order to deal with the introduction of the Phase 2 as described in 3.1.2.2 a special "Core Team" of Elf employees was established to replace the normal permanent platform manning crew. The "Core Team" consisted of the following personnel:

- one OIM (formerly Safety Supv.) who also fulfilled the Safety Supv. position.
- one Construction Supt. who also fulfilled the assistant OIM position.
- one Medic who also fulfilled the Rig Officer position.
- one Electrician.

All four members of the Core Team were accommodated on QP platform and were the first crew shuttled to CDP1 each morning and were the last crew shuttled from CDP1 each evening.

3.1.4 Manning

Following the commencement of Phase 2 and the subsequent shuttling of all personnel a ceiling was imposed on the number of personnel who could be onboard CDP1 at any one time. This was set at twenty-two people, a figure which had been reached by calculating the maximum number of personnel who could be evacuated from CDP1 by the Bond Dauphin helicopter with two shuttles. (Thus 2 shuttles x 11 passengers each).

In order to allow for some flexibility due to various visits and other extra work the daily figure of personnel onboard was always limited to a maximum of twenty thus allowing for these special arrivals to take place as and when required.

3.1.5 Helideck Landing Team

Following the introduction of Phase 2 a specially nominated helideck landing team was established to monitor and assist during the landing and take-off of helicopters. This team consisted of the following personnel.

- one Heliguard Officer (OIM)
- one Fireguard (contractor crane operator)
- one Proximity person (Constr. Supt./Elec.)

The contractors crane operator was drafted into the fireguard position owing to the fact that they had completed the helideck fire-fighting course.

The team was doubled to a total of six when the main fire-fighter systems (firewater pumps, etc.) were taken out of service and only the light foam and portable fire-fighter equipment (powder and CO_2) were available.

This team consisted of the following personnel:

- one Heliguard Officer (OIM)
- two Fireguards (Crane Op./Constr. Supt.)
- two Fireguard Assistants (Contractor Personnel)
- one Proximity person (Elec.).

3.1.6 Company Construction Team

The Off-shore Company Construction Team was headed by the Construction Supt. The Onshore Construction Team was headed by the TCD Construction Section Head supported by a dedicated Project Engineer. Contact was maintained throughout the duration of the project between the Constr. Supt. and the Project Engineer. "Daily Telex Reports" and a weekly updated issue of the "Weekly Progress Report" were transmitted by the Constr. Supt. to the Onshore Team.

The Company Constr. Supt. reported directly to the Frigg Field Manager on a daily basis as required and also through copying the FFM on the "Daily Telex Report".

3.1.7 Contractor Construction Team

The Off-shore Contractor Construction Team was headed by their Construction Supt. Their Onshore Construction Team was headed by a Project Manager.

3.1.8 Communication Facilities

During the course of Phase 1 all the normal communication facilities e.g. satellite telephone, telex and telefax were in operation. However, following the commencement of Phase 2 the telex and telefax facilities were removed from CDP1 and this form of communication had to be effected via QP. The satellite telephone facility was also removed from CDP1 and a specially installed "point-to-point" telephone was installed.

3.1.9 Working Accommodation

During the course of Phase 1 all existing office facilities were in normal service. Once Phase 2 had commenced, all of these facilities, including the living quarters accommodation, were closed and alternative facilities were taken into use.

This consisted of utilizing the Rig Module (both levels) to cover the requirements of the decommissioning crew. The previous radio room/rig office was used by the OIM, Company and Contractor Constr. Supt. and Medic/Rig officer as a communal office. The rig office check-in area was kept largely as before whilst the first floor filled the function of a combined coffee shop, cafeteria and semi-office for the Marine Co-ordinator and Crane Driver.

Electrical power to both the 220v (lights, heaters) and the 380v (HVAC) systems were supplied by temporary portable generators located on the pipe deck. Fresh water supply was maintained by utilizing the existing Saipem System which was, in turn, connected to the same temporary portable generators. Hot water for the rig module was obtained through the hot water heater unit located in the coffee shop.

3.2 DETAILED PLANNING

3.2.1 Sequence of Work

The actual sequence of work was decided upon following a careful review of all the known tasks available and their possible influence upon each other.

Thus it was decided, for example, to perform all the steaming tasks at the commencement of the off-shore decommissioning works in order to ensure a hydrocarbon free piping system before continuing with other tasks, some of which included hot work on the same piping system.

Thereafter, the sequential execution of the various tasks was planned to incorporate some of the following examples:

- removal of various pumps and associated risers before removing the MK60 crane.
- isolation and de-energizing of various live systems prior to removal or decommissioning of various consumers.
- maintain the minimum number of lifeboats onboard in order to cover for the Phase 2 manpower level.
- maintain the helideck fire-fighter systems in operation for as long as possible.
- removal of other pumps and associated risers plus other equipment before the removal of the National crane.

3.2.2 Temporary Power and Utility Supply

It was already a known fact that once Phase 2 commenced then the normal sources of power and utility supply available onboard CDP1 would be taken out of service. These included the following:

- 5.5 kV electrical supply from QP.
- power supply from local CDP1 generators.
- compressed air supply from local CDP1 sources.

Thus it was foreseen that the contractor would supply the necessary generators and compressors to maintain the vital systems onboard CDP1 in addition to supplying the necessary power and utility supply to operate their own equipment (e.g. welding machines, grinders and drills, air-operated winches, crane power and utility supplies, etc.).

The following temporary power and utility supply equipment was mobilized:

- one 380V generator
- one 220V generator
- one compressed air generator. (At first the existing Ingersoll-rand onboard CDP1 was used until its replacement with a smaller model).

The final size and weight of the above equipment in relation to the relative supply capacity versus demand had to be weighed against the lifting capacity of the evacuation helicopter.

3.2.3 Man-hours

A copy of the "CDP1 Decommissioning Register" (6 pages) updated to reflect the completed off-shore CDP1 Decommissioning Project, is attached to this report. (Encl. 3.2.3.1). Contained within this register is a comprehensive summary of all the man-hours estimated and expended, divided into the seven separate systems.

The "Estimated Man-hours EAN" column was based upon the original input contained in the documentation formulated by Production Dept. titled "CDP1 Decommissioning Manual". The "Estimated Man-hours AKER" column was based on revised task descriptions, transfer of tasks to system responsible departments and other information which became known during the planning of the project.

3.3 PROGRESS OF OFF-SHORE WORK

3.3.1 Follow-up and Reporting

In order to ensure an accurate follow-up of the off-shore decommissioning works a series of reporting methods were introduced covering all aspects of the work.

3.3.1.1 "Weekly progress report"

This report consisted of the itemized tasks with descriptions incorporating the per cent progress, expended hours and accumulated hours which was updated weekly based on the input of the Company Constr. Supt. (Encl. 3.3.1.1).

3.3.1.2 "Barchart at task level"

This report consisted of the tasks being organized in their order of sequence of execution and was updated weekly based on the input as described in item 3.3.1.1. (Encl. 3.3.1.2).

3.3.1.3 "Register"

This report was raised by the cost follow-up section based on the information supplied through the reports as described in items 3.3.1.1 and 3.3.1.4.

3.3.1.4 "Daily telex report"

This report was a summarized list of each days activities which was raised by the Company Constr. Supt. and sent to Construction Section Head.

3.3.1.5 "Contractors weekly report"

This report was issued weekly by the Contractor to the onshore Company Project Engineer and summarized all the various activities of the decommissioning project.

3.3.2 Variation Orders

During the course of the off-shore decommissioning works it became necessary to perform work which was over and above that which had been described on the various task sheets. These newly found works were individually collected under the "Variation Order" registration system and were allocated a sequential number. A total of twenty-one such variation orders were raised during the course of the off-shore works.

3.3.3 Execution of Tasks

A small number of the tasks originally raised for the off-shore decommissioning work were undertaken by the various EAN departments responsible for the systems.

3.3.3.1 Whilst they were actively engaged off-shore removing well-heads and casings/production tubing, etc. the Drilling and Completion Department (DCD) undertook some tasks which were located in the immediate area where they were operating. These were:

- Task 20MO04 - Drilling equipment in Derrick
- Task 20MO05 - Drain Hydraulic system in Derrick
- Task 20MO06 - Remove industrial pumps.

3.3.3.2 Production Dept. (PD) also executed some tasks during the course of their normal daily routine work off-shore, e.g.:

- Task 10MO01 - Pigging 26" sealine 'A'
- Task 10MO02 - Pigging 26" sealine 'B'
- Task 25MO05 - Steaming of main gas CDP1
- Task 25MO13/14/15 - Removal of various material/equipment.

An additional four smaller tasks were also performed by Prod. Dept.

3.3.3.3 Maintenance Dept. (MD) undertook a number of tasks which were specifically connected to their own system responsibilities e.g.:

- Task 45IO01 - Passivation CDP1 control panel
- Task 45IO03 - Passivation TP1 cabinets
- Task 45IO18 - CDP1 F&G/utility and mimic
- Task 45IO19 - TCP2 interface cabinet
- Task 45IO20 - Passivation of TP1 equipment.

An additional four smaller tasks were also performed by Maintenance Dept.

3.3.3.4 The remaining majority of the off-shore decommissioning tasks were executed by the selected contractor AKER MAINTENANCE A/S.

3.3.4 Use of Specialist Technicians

Following discussions between TCD and Maint. Dept. it was decided to recruit the assistance of experienced technicians to assist with the removal of various items of equipment which were to be transferred to onshore for eventual storage as spare parts.

These technicians were incorporated into the contractor's (AKER MAINTENANCE A/S) Off-shore Team and functioned as a working foreman for the specific tasks which they had been recruited to assist with. These personnel were hired from BJØRGE OFF-SHORE A/S and had performed identical work on numerous occasions on the Frigg Field for Elf Maintenance Dept.

The tasks which they were recruited to assist with were as follows:

- Task 40MO01 - Removal of firewater pump G101A
- Task 40MO02 - Removal of firewater pump G101B
- Task 40MO05 - Removal of MK60 crane
- Task 40MO06 - Removal of National crane.

The assistance provided by these technicians proved beneficial throughout the planning and eventual execution of the above listed tasks.

3.3.5 Decommissioning Crew

3.3.5.1 The off-shore contractor Aker Maintenance A/S manning level averaged ten persons throughout the duration of the off-shore works with a minimum of four at the beginning and end of the project and a peak of 16 during the most active period (commencement of Phase 2).

3.3.5.2 A scaffolding crew, made available from the Maint. Dept.'s general scaffolding/painting team, was engaged in work onboard CDP1 on a periodical basis. At the peak of their work (October) they totalled three in number.

3.3.5.3 In addition to the above, the Core Team as described in item 3.1.3 of this report functioned throughout the duration of the off-shore decommissioning work.

3.3.5.4 Numerous day visits from various project and trade supervisors, N.D.T. operators and inspectors, management personnel etc. occurred throughout the course of the off-shore decommissioning work.

3.3.6 Utilization of Equipment

The necessary use of temporary power and utility supply has already been documented in item 3.3.2 of this report. Further to what has already been stated an appraisal of how the equipment was utilized follows.

3.3.6.1 The 380V 50kV electrical generator was fed into a self-standing distribution board. From this board the various consumers were supplied through temporary cables specially pulled for each consumer. These consumers included:

- three welding machines
- rig module HVAC
- Saipem 380V/220V transformer (fresh water supply etc.)
- pump for flooding the central core
- helideck, obstruction and nav. aids lights including battery back-up system.

This generator was able to handle the entire output required and as it possessed a large diesel storage capacity it was able to be run for up to three days (depending on consumer load) before refuelling was necessary. As the project reached it's conclusion this particular generator (weight 11 tons) was replaced by a smaller generator (weight 2,6 tons) to enable it's evacuation by helicopter at the conclusion of the off-shore works.

3.3.6.2 The 220V electrical generator was fed into a self-standing distribution board. This generator was used daily from the commencement of Phase 2 but it's daily running time was gradually reduced as most 220V consumers were connected to the 380V generator. (See 3.4.6.1). It's limited diesel storage capacity meant that it had to be refilled daily and thus, in the event of a "None shuttle day", it would run dry and shut-down.

3.3.6.3 The Ingersoll-rand air compressor, an existing part of the CDP1 utility supply network was utilized right through to when the project neared its conclusion when it was replaced by a smaller air compressor to enable it's evacuation by helicopter.

3.3.7 Tasks Requiring Special Attention

A number of the tasks performed were of such a nature that special attention had to be made to ensure their safe removal. For each of these tasks a dedicated procedure was raised in order to cover all of the necessary planning and execution aspects of the task in hand. Some of these tasks included the following:

- task 20SO03 - Remove derrick and substructures
- task 20SO22 - Install new walkway bridge
- task 35SO27 - Remove flare booms
- task 37SO37 - Remove conductor guide frame
- task 40MO01 - Remove firewater pump G101A
- task 40MO02 - Remove firewater pump G101B
- task 40MO05 - Remove MK60 crane
- task 40MO06 - Remove National crane
- task 40SO37 - Remove diving module
- task 45EO14 - Remove all accumulator cells (batteries).

3.3.8 Helicopter Evacuation

Once work on removal of the National crane had commenced and the boom was dismantled there existed no further possibility to load or back-load any material or equipment to or from the supply vessels. From this period of time, however, it was necessary to retain onboard CDP1 a number of items of material and equipment which were required in order to perform the remaining outstanding works, including, most specifically, the removal and skidding of the National crane onto the pipe deck for permanent storage. Thus it became necessary to formulate a plan for the evacuation of this material and equipment by means of a helicopter.

A specific procedure titled "Helicopter Evacuation of Equipment from CDP1 - SPO19, rev. 0" was raised in order to detail the events of the operation. This procedure was reviewed and accepted by all concerned parties both onshore and off-shore including the helicopter contractor HELICOPTER SERVICE A/S.

A Sikorsky S61N helicopter was selected for the work. The lifting capacity of this type of helicopter is normally between 3 and 3.5 tons and it was decided to limit the weight of the various components which were to be evacuated to approximately 2.5 tons in order to ensure compliance with the various restrictions.

At 09:40 hrs. on Thursday 8 November 1990 the first lift was made from CDP1 and transferred to DP2. Twelve lifts later at 11:10 hrs. the evacuation was completed.

A list of the twelve lifts follows:

NOS	DESCRIPTION	SIZE (mm) LXBXH	WEIGHT (TONS)
1	Container for hazardous waste (batteries)	1850 x 2000 x 2710	2,5 t
1	Air Compressor		2,5 t
1	220V Generator	850 x 2300 x 1400	1,4 t
1	380V Generator		1,5 t
2	Racks 0_2/Acetyl bottles (tara 2400 kg)	1100 x 1100 x 2040	2,4 t x 2
1	Diesel Fuel Tank (tara 2600 kg)	2180 x 3050 x 2430	2,6 t
1	Diesel Fuel Tank (tara 1600 kg)	2080 x 1830 x 2380	2,5 t
1	Trash Container (tara 850 kg)	2000 x 4100 x 1600	2,5 t
1	Aker Work Equipment (tara 1500 kg)	1850 x 2000 x 2710	2,5 t
1	Aker Work Equipment (tara 900 kg)	1890 x 2310 x 2070	3 t
1	Winches (2 off)	1700 x 1100 x 1100	2 t
2	General Equipment	1850 x 2000 x 2710	0,2 t

In addition to performing the evacuation of material and equipment as described the helicopter was also utilized to transport passengers from Sola Heliport to Frigg and from Frigg to Sola Heliport.

3.4 SAFETY DURING OFF-SHORE WORKS

3.4.1 Introduction

The off-shore decommissioning project presented a unique challenge to the Company and, in particular, the TCD. The shutting-down, decommissioning and removal of a number of the facilities and systems had to be approached in a careful manner to ensure that the maximum level of safety was maintained at all times. Some of the tasks performed were a first-time experience and thus, specific arrangements had to be made to realise their safe execution.

A summary of the tasks which demanded special attention due to their size, complexity and innovation can be found under item 3.4.7.

3.4.2 Weekly Verneombud Meeting

In order to monitor and inform those present onboard CDP1, especially following the commencement of Phase 2, a weekly V.O. meeting was held.

During the Phase 1 period and whilst the normal CDP1 platform manning crew was onboard, the weekly VO meeting was held as per standard procedure. This meant that the HVO along with the selected VOs' and management personnel attended the Saturday meeting.

Once Phase 2 was in operation, the entire personnel onboard CDP1 (Contractor Crew, Core Team, etc.) attended the weekly meeting. The meetings were an open forum where each individual had the opportunity to comment on any item of safety and suggest methods of improvement where required.

Minutes of meetings were raised and were used to follow-up the various items of interest and action. One of the actions which was stressed at each meeting was the use of protection eye-glasses and each individual was encouraged to use these glasses at all times. The success of this campaign can be

determined in the resulting list of accidents reported during the course of the off-shore project. (See item 3.4.3). No eye injuries were registered during this period.

3.4.3 Reported Accidents

Throughout the duration of the off-shore decommissioning works from 2 July 1990 to 8 November 1990 three accidents directly related to the decommissioning project itself were reported. These are as follows:

3.4.3.1

Accident date:	900714	at 10:30 hrs. on installation CDP1	
Accident Number:	900092	Accident Type:	Damage
NPD category:		Employer:	

Description of accident:
During the cutting of members of the Derrick above the monkey board, sparks ignited a fried section of the plastic cladding causing a slight damage to a section of the cladding. The fire was extinguished by a powder extinguisher shortly after it started by the Aker Crew in the Derrick.

3.4.3.2

Accident date:	900719	at 10:30 hrs. on installation CDP1	
Accident Number:	900096	Accident Type:	Near Miss
NPD category:		Employer:	

Description of accident:
While removing the outer section after cutting of the flareboom, and during placing of the section on deck, the 10" flare line hit a container. This resulted in that the pipe loosened from the clamps. As the lift had a small angle of inclination the pipe slided out of the clamps and fell into the sea.
No damage to people or platform observed.
Proposed improvements: all pipes on the sections of the flare boom will be secured by welding them to the structure prior cutting the section.

3.4.3.3

Accident date:	901028	at 13:35 hrs. on installation CDP1	
Accident Number:	900130	Accident Type:	Injury
NPD category:	1	Employer:	EAN

Description of accident:
While moving a container on pipedeck, the guide-line on the container twisted around his left hand index finger. Resulted in strong pull, and brought one of the joints out of position.

3.4.4 Conduct of Work

As can be deduced from the previous item 3.4.3, the conduct of the work off-shore in a safe and efficient manner was, to a very large extent successful.

The Contractor crew consisted mainly of experienced off-shore personnel well versed in the requirements of off-shore construction work and showed a good working knowledge and understanding of the necessary safety and other procedural requirements during the performance of the off-shore works.

3.5 STATUS OF CDP1 AFTER DECOMMISSIONING

3.5.1 Summary

Since 8 November 1990 CDP1 has been a decommissioned and totally unmanned platform.
The only systems which are operational are as follows:

3.5.1.1 Two white navigation aid lights, one positioned in the north-west corner and one positioned in the south-east corner of the main deck, powered by a solar panel and battery bank.

3.5.1.2 One red obstruction light located on top of the rig module roof powered by a solar panel and battery bank.

3.5.1.3 The two 26" previously gas sealines, one 8" previously mud-kill sealine and one 4" previously condensate sea-line, all located between CDP1 and TP1, have been prepared in order to provide storage facilities for nitrogen and compressed air. It has been foreseen for the 26" sealine 'A' and the 8" sealine, through an interconnection line between the two, to be used for nitrogen storage.
The 26" sealine 'B' and the 4" sealine, through a similar type of interconnection line between the two, will provide storage for compressed air.

3.5.2 References

The "CDP1 - Vol. 1 Operations Manual" has been revised in order to reflect the new decommissioned status. This revised issue is titled "CDP1 as a decommissioned platform - Vol. 1 Operational Manual" and should be consulted in order to obtain a detailed status of CDP1 as from 8 November 1990.

3.6 SAFETY DEPARTMENT REPORT

3.6.1 Information in AMU's:

The progress and status on CDP1 decommissioning was referred and commented on under item FRIGG FUTURE in the following AMUs:

BU-AMU 1/89 - 16.08.89
1/90 - 07.02.90
2/90 - 24.04.90
3/90 - 20.06.90

K-AMU 1/90 - 21.02.90
2/90 - 12.06.90
3/90 - 12.09.90

3.6.2 Work performance and discussion with other entities:

Phase I January 1990 - September 1990:
- Tail off production
- Shut in of wells
- Well securing
- Removal of wellheads and conductor pipe

Period:
Mobilization of drilling crew for well securing and removal of wellheads/conductor pipe.

Comments:
- No pre-operation meeting involving the Safety Dep. and the elected V.O. organization.
  Planning deficiences, rush work, short cuts during the first period of above work caused an increase in the hazard potential resulting in unsafe conditions and unsafe acts.
- In Feb. 90 a heavy rise in *reported* accidents were experienced.
  In order to improve the condition and to maintain a closer follow up from a safety point of view the Safety Dept. was requested to provide an extra Safety Supervisor to follow up the night shift in the period from 13.02 till the 20.02.

19.04.90: Meeting w/Smedvig
Such meeting was initiated by Safety Dept. to high-light safety at work after a number of accidents:
NP1 Cat. 1, 2, 3 = 3
NP1 Cat. 0 = 7
Near Miss = 7
in Jan. - Feb. - March 1990.

This was a follow-up of a check initiated by SSI and revealed (3.3.90):
- no systematic training
- work velocity must be in harmony with capability of work force
- new check later.

EAN made it clear that
priority no. 1 = safe production
priority no. 2 = safe "drilling"
and that OIM "heads the Smedvig activity".

April/June:
Discussions/evaluations of the size and competence of the CDP1 decommission core team with ref. to Continental Shelf Notice 58.
As a result of this SSV was functioning as OIM in decommission fase II.

Meeting 30.05.90: Safety review and/or revision
TCD/Safety - work permit/hot work
- Contingency Plan/Emergency Procedure
po - stressed the need for pre-job meetings offshore.

TCD sent the detailed plans for the different working operations to Safety Dept. for evaluation/acceptance (Phase II).

3.6.3 CDP1 decommissioning phase

Period:
De-manning date in September to completion 08.11.90.

Timing - Schedule
The accelleration/early completion of Phase I created rush causing short cuts in the phase 2 planning with regard to:
- platform organization
- work preparations
- contracted services
- throughout evaluation of needs related to power/telcom supply/distribution
- safety evaluation - hazard identification - hazard control/elimination.

De-manning date - practical demanning arrangements:
Uncertainty with regard to demanning date. Upon receiving approval from DEn a hurry-hurry-rush action initiated as to demann CDP1 including removal of contracted as catering services and so on, creating a caotic condition on CDP1.

* The practical arrangements should be planned in this context including giving sufficient time to meet/deal with the various requirements in an orderly manner.

Preparation of work
The actual work showed deviation between drawings and actual lay-out.

* Derrick; - complexity with regard to type of operation - weight - means and method, considered as underestimated. The same remark is valid for removal of the flare boom - guide frames - diving unit.

* Time - Schedule - Time pressure invited to short cuts within the above risky operations.

* Plan related to removal/cocooning of equipment were frequently changed indicating lack in the pre planning.

Organization/Team Work/Qualifications/Follow-up
More attention should be paid to this vital part of the operation. Pre-operation meetings with key members in all teams should be held, unnecessary change of personnel took place creating irritation and risk of miss in the team work. Also the need for multi-skill personnel able to work closely in teams are a must as to carry out a safe and efficient operation. Alertness is a vital factor in this context. The change from a platform conditions containing automatic detection systems - alarm systems - fire extinguishing means and so on, to our platform conditions depending on each of the team members attention/alertness have been communicated - understood - accepted.

Utilities
Experience a need for maintaining the power supply and distribution net as to maintain sufficient illumination for a longer period than the established. Short cuts made to compensate for this need, (f.ex. the 5.5 kV was kept live into phase II and after decommission of the detector system).

Means for communication as telephones for both internal and external communication need was underestimated.

Safety systems
Need for temporary PA-alarm system was under-estimated. Such arrangements should be provided for.

Communication of authority and operative requirements should be visualized to all team responsible in a way that avoid/prevent mistake done as f.example putting the Sylvania fi-fi equipment for the helideck out of operation before the end of phase 2.

It is also recommended to keep fire water availability for a larger period then the actual case on CDP1.

Communication
The importance of prework meetings as to keep all team members informed - updated should be observed as an important factor.

Such meetings is also vital related to deviation from established procedures when the "chart-land" means
- methods do not fit together and another approach has to be choosen.

PM routines for temporary equipment
Such routines must be established in order to maintain reliability of such equipment throughout the operation.

Helicopter lifting
Some problems related to deviation from procedure related to information/approach on DP2, i.e. between helicopter crew and platform crew at the start. Otherwise a quick - safe and efficient operation.

3.6.4 Accidents on CDP1 related to the total EAN activity

Accident rate 01.01.90 - 08.11.90

	HMP1	CC	DP2	CDP1
EAN	54	35	65	107
CONTR	88	101	94	53
TOT.	67	67	83	65

Man-year 01.01 - 31.10.90

	HMP1	CC	DP2	CDP1
EAN	93	144	31	28
CONTR.	57	138	53	95
TOT.	150	282	84	123

The conclusion is that the Accident Rate for CDP1 is not any higher than the Accident Rate at the other fixed installations with EAN activity. However, if the incidents not reported to the Authorities are taken into account the picture is as follows:

Near Miss - Damage (by number) 01.01 - 08.11.90

	HMP1	CC	DP2	CDP1
NM	3	13	3	9
DA	3	1	3	2

NPD Cat. 0 (not reportable accidents - by number):

	DP2	CDP1
EAN	0	3
CONTR	1	6

4. CDP1 MANNING

4.1 PRIOR TO DEMOBILIZING LIVING QUARTER

The personnel movements due to the closure of CDP1, was outlined in an IM, ref. no. 311E-FO 89/079/PSE/giw of 18.05.90, signed by P.S. Endresen. (See enclosure 4.1.1).

In this IM the Field manager and the OIM in cooperation with the onshore departments were delegated the responsibility of defining the detailed manning requirements and when positions may be released from CDP1.

The reorganization plan of 28.09.89 stated a reduction of 2 production operator positions when all operations on live wells were completed. The implementation was performed 01.07.90.

In a detailed plan issued 26.06.90 called "CDP1 Decommissioning", signed by Frigg Field Manager G.W. Syslak and HVO T. Lodden, two periods were considered:

- 1st period starting from the day when CDP1 platform is declared "free of gas", and finishing when the living quarters are closed.

- 2nd period starting from the "closure of the living quarters" up to the end of the decommissioning operations.

The normal manning during 1st period was 22 persons (see enclosure 4.1.2), in addition to approximately 35 persons in the TCD crew. Furthermore, a MSD diving crew of 10 persons worked on CDP1 during the weeks 30, 31, 32.

During the 1st period the permanent crew continued to man the emergency organization. TCD should, however, supply a lifeboat crew.

4.2 AFTER DEMOBILIZING LIVING QUARTER

During the 2nd period of decommissioning, the number of workers were limited to the capacity of 2 shuttle helicopter trips, i.e. max. 22 persons in exceptional cases and 18 persons on routine basis. The personnel were accommodated on other Frigg Field platforms.

A core team of Elf employees was originally planned to consist of:

- 1 OIM (with VHF certificate)
- 1 TCD supervisor
- 1 senior electrician
- 1 nurse (if more than 1 helicopter; 9 persons).

See enclosure 4.1.2.

Field Manager H. Delye issued 12.07.90 a note, 311E FFM 90/068/RSL with the subject "CDP1 Decommissioning - Second Period - Manning and Organization". See enclosure 4.2.3.

The core team is now reduced to 3 Elf employees, consisting of:

- OIM/safety supervisor
- TCD supervisor/OIM replacement
- Senior electrician.

After some discussion onshore as well as offshore, the core manning was finally decided to also include a nurse when more than 11 persons were onboard, or when special dangerous operation was planned. (See enclosure 4.2.4).
The "old" OIM/Production Supervisor was stationed on QP with a special responsibility to follow and monitor the work progress and safety on CDP1 and keep the Field Manager informed. See enclosure 4.2.5.

As long as the crane was in use, the crane operator was provided by EAN in order to take advantage of his qualifications related to the emergency organization.

The final core team and emergency organization was issued by H. Delye 21.08.90 in an IM, ref. no. 311E&FFM 90/090/HD/th. See enclosure 4.2.6.

5. FUTURE INSPECTION PROGRAMME

5.1 MARINE STRUCTURE DEPARTMENT

5.1.1 Introduction

The future below water inspection programme for CDP1 in a decommissioned mode has been divided into two different programmes, one basic programme and one environmental based programme.

The basic programme consists of one inspection programme which cover 1/3 of the structure every second year, starting in 1992 and covering the whole structure the following 5 years.

The environmental based inspection programme will be adopted and performed when the maximum wave height recorded exceeds a fixed treshold value, and if the settlement and tilt measurements exceeds the pre-agreed limitation value.

5.1.2 Inspection Philosophy for the Revised CDP1 Programme

5.1.2.1 General

As the CDP1 platform is decommissioned, personnel accidents in normal terms are not very likely. Hence, the responsibility for a decommissioned platform is more clearly expressed in the following objectives:

a. To prevent accident that could cause undue risk to personnel coming onboard for necessary inspection and maintenance work.

b. To ensure that the structure is in an acceptable condition and does not represent a hazard to the environment on the Frigg Field.

c. To be able to detect any major or severe deterioration of the primary structure in order to maintain the Certificate of Fitness.

EAN has taken series of measures, see reference list paragraph 5.1.7, to achieve the above mentioned objectives. The In-service Inspection System (IIS) is one of them.

In order to decide where, how and when to inspect for damage, it is necessary to establish a strategy.

5.1.3 Strategy for the Revised CDP1 IIS-Programme

5.1.3.1 Introduction

The strategy for revision of the IIS-programme for CDP1 is based upon identification of critical areas.

5.1.3.2 Strategy

A thoroughly evaluation has been made of the structure which identified some areas requiring inspection either because there is a higher probability of failure in the areas than any other areas on the installation or because the consequences of failure are high.

Special attention are made towards:
- Areas with a high probability of failure and high consequences. However, the consequences will be much different compared to a producing platform and this have to be taken into due consideration.

Special areas which are identified as problem areas based on the operational history of the platform.

- Areas to be used in the future phase of the platform, such as gangways, stairs and ladders should also be paid attention to.

The review has been based upon special reports, see reference list paragraph 5.1.7, defining critical areas on CDP1 and available annual inspection reports in order to identify which parts are most susceptible considering the established inspection philosophy.

5.1.4 Inspection Types

5.1.4.1 General visual inspection - Type I

Objectives:
- To assess the overall condition of the platform to ensure that the load bearing parts remain in a satisfactory condition.
- To detect any major deterioration
- Observation of foundation behaviour
- Mapping of debris

Where access possibilities are difficult above water, the use of binoculars should be made.

5.1.4.2 Close visual inspection - Type II

Objectives:
- To check closely for selected parts or areas of the structure which are of primary importance or especially vulnerable to damage.

5.1.4.3 Cathodic protection measurements - Type III

Objectives:
- To detect general or local corrosion
- To monitor earlier detected corrosion

5.1.5 Inspection Programme for CDP1, Below Water 1991, 1992 - 1996

Basic inspection programme for CDP1, below water 1991
No below water inspection is planned due to the extensive inspection the last 4 years. However, the below listed environmental programme will apply and will be triggered for 1991 if we have had bad weather conditions which according to the environmental programme require inspection to be carried out.

Basic inspection programme for CDP1, below water 1992 - 1996
The basic inspection programme for CDP1 comprises coverage of 1/3 of the GBS with general visual inspection (GVI) every second year in the five year period, and supplemented by close visual inspection (CVI) of structural parts classified as critical sections in one of the five years. The GVI covers concrete and scouring inspection.

5.1.6 Environmental based Inspection Programme for CDP1 - Below Water

After several years of extensive inspection, one can assume that all defects of any significance originating from the fabrication and installation phases, have been detected.

New damage will later be caused either by accidental events or by extreme environmental loading.

A two level environmental programme is established. First level will be triggered if Hmax exceeds 22 m and will include GVI of the three most cracked ED walls (35, 44 and 65).

The second level is set at 26 m (approximately 75 % of the 100 years wave load). If this wave height is exceeded, a CVI shall be carried out on the three most cracked ED walls (35, 44 and 65) measuring crack growth.

The environmental based inspection programme must be added to the part of the five yearly inspection programme that already is scheduled for the following season.

If the optical settlement measurements show significant changes, the environmental based programme can also be triggered (either first or second level), based on the operational responsible engineer judgement.

5.1.7 Reference list

The revision of the five-yearly below water inspection programme for CDP1 in a decommissioned status has been based on the following reports:

- AAJ Report No. 106-90 (EAN-16)
  Definition of critical areas for the decommissioning inspection programme.

- AAJ Report dated 06.06.90.
  Frigg CDP1 decommissioning conductor guide frame integrity.

5.2 ENGINEERING DEPARTMENT

Inspection Policy
With reference to report from Inspection Department of 14.01.86 the objectives of the inspection are:

- To secure safe access to personnel coming on board for necessary inspection and maintenance work to concentrate inspection on a few specific areas of high criticality as regards the overall integrity of the platform or the failure of which would result in large parts of structure/equipment falling down.

Above Water Inspection Programme
The inspection is limited to the air/nitrogen storage (26" risers) and visual inspection of primary structure above water and deck structures and consists of visual inspection only, (binoculars may be used), except for CP measurements in central core.

Items to be inspected:

- break water wall
- support columns
- central core
- main deck structure
- helideck structures
- support points of hanger frames (spot checks)
- authorized stairs, gangways and access ladders
- air / nitrogen storage (26" risers RA and RF)

Inspection Access:

Break Water Wall
Outside, top and inside of the wall can be inspected from vessel and from top of the wall. Access by vessel and permanent ladder from sea level (sketch 5.2.1), or by "safe way" from helideck (sketch 5.2.2).

Support Columns
The condition of the columns and the lower support points can also be inspected from top of the break water wall. The upper support points can be visually inspected together with inspection of main deck structures.

Central Core
Can be inspected externally from break water wall and gangway around central core at break water wall level and from stairs at north side of central core (sketch 5.21 and 5.2.4). Internally the central core can be inspected from service deck 2 and 3 (sketch 5.2.4). The core is planned to be entered for inspection of the 26" risers used as air/nitrogen storage. Safe access down to sea-level is required. Visual inspection of the risers shall be carried out down to sea level, and CP measurements will be made in the central core.

Main Deck Structures
Inspection can be performed from the grating on top of main trusses. This grating is galvanized and in good condition and should remain safe for years without maintenance.

The main deck can also be inspected from the service decks and from the different access platforms below the deck. These platforms can be used as long as they are considered safe without any maintenance.

Other Deck Structures - Helideck
As the main access to CDP1 in decommissioned status is planned to be by helicopter the helideck is to be included in the inspection programme. The north side of the helideck is accessible from the existing gangway below the deck structure (sketch 5.2.2). The gangway should be kept in safe condition. South side the deck can be inspected from pipe deck by use of ladder. Mid section is not accessible as it forms the top of module 6. However, it is well protected by walls.

Support Points of Hanger Frames
Spot checks to be taken. Access from service decks 1-2-3-4 and from marked up access points (sketch 5.2.4).

Access Ways
From helideck to main deck the system of stairs on east side of the platform is recommended used as "safe way".
At main deck safe access ways should be marked to each of the access points 1 to 7.
To service deck area the stairs down to service deck 1 is recommended used as "safe way" (sketch 5.2.3).

"Safe way" should also be marked from service deck 1 via top of central core to service deck 3. From service deck 3 the stairs at north side of central core down to break water wall should be used.
From break water wall level at central core there should be safe access westward to break water wall.
The break water wall top is to be used as access way to the north access ladder to sea.

General
Authorized and safe access ways for maintenance of navigational aids and inspection should be marked up on the platform.
If any additional inspection or testing (e.g. wall thickness measurements) is deemed necessary due to severe deterioration that could jeopardize structural integrity, extended inspection and access has to be considered from case to case.

Manpower
The inspection programme is proposed performed yearly.

Manpower needed:

- inspection from vessel and from top of breakwater wall: 2 men 1 day

- inspection from main deck level, helideck, other structures: 2 men 1 day

- preparation and reporting: 1 man 2 days

This estimate does not include any extended inspection with NDT.

6. COST

6.1 BUDGET/ESTIMATED FINAL COST

Budgets
The initial budget of 35 MNOK approved in Fall '89 was based upon the estimate given in the "Manual for Decommissioning of the CDP1 Platform" issued by Production Department. The manual's cost estimate was 23 MNOK plus 30% contingency or 30 MNOK in total. An additional 5 MNOK was added bringing the contingency factor to over 50%.

The 35 MNOK was maintained in the Spring '90 budget as the work had not yet commenced.

In the Fall '90 budget revision, the approved budget was reduced to 19.5 MNOK or by more than 40%

Estimated Final Cost
The final estimated cost for this work is 14,5 MNOK. This represents a further 25% reduction in relation to the approved Fall '90 budget. In relation to the initial estimate of 35 MNOK, the reduction is nearly 60%.

6.2 MAJOR CONTRACTS

Only 3 major contracts (over > 500 KNOK) were utilized for this work:

Contract No.	Company	Value (KNOK)	Description
90.066	Aker Maintenance	8.000	Main offshore work
8.124	Smedvig	900	Rig down/ Decommissioning
8.023	Stolt-Nielsen Seaway	950	Rig/Cut cond. guide frame removal

The main contract 90.066 can be further detailed as follows:

	KNOK	%
Lump sum work	: 4.600	58%
Reimbursible work	: 1.750	22%
Standby/shuttling	: 400	5%
Equipment rental/purchase	: 350	4%
Cond. guided frame equip.	: 900	11%
Total	: 8.000	100%

Of the lump sum and reimbursable work carried-out, 19% was performed as variation orders.

6.3 OTHER COST

Minor contracts are grouped together in the following categories:

	KNOK
Prep. of offshore tasks	200
Procedures, inspection, etc.	1100
Offshore coordination (contractd)	200
Offshore scaffolding	450
Misc. offshore work	600
EAN ordered materials	750
Navigation aids/obstruction lights	400
Repair/storage of removed equip.	500
	4.200

Comparison Initial Estimated Final Costs

There are 4 major explanations for the 20 MNOK variance between the initial estimate (35 MNOK) and the estimated final costs (15 MNOK):

- Cancellation of the permanent protection of riser tunnels : 2.5 MNOK
- Incorrect inclusion of internal personnel costs : 4.0 MNOK
- Actual expended man-hours (22.000 hrs.) less than the estimated (32.000 hrs.) : 4.0 MNOK
- Contingency factor unnecessarily high : 12.0 MNOK

7. AUTHORITIES

7.1 GENERAL

The application for wells abandonment and decommissioning of CDP1 was sent the Department of Energy (DEn) 11 December 1989.
This application was based on the proposal given in the Frigg Field Revised Development Plan of 30 October 1989.
The approval was given by the DEn on 5 February 1990.

7.2 INFORMATION TO AUTHORITIES

7.2.1 Department of Energy

The first meeting with DEn was held on 3 May 1990.
The purpose of this meeting was to inform the DEn of the ongoing wells abandonment campaign and the principles and schedule for decommissioning.
In this meeting the DEn stated that they wanted to be kept informed through status meetings and it was agreed to have a total of 3 meetings (coarse schedule made).

The DEn also confirmed that exemptions from the relevant laws and regulations had to be sought.
The exemptions from regulations should be based on the principles described in CSON 58 and CSON 60.

The DEn also emphasized that contact with the Certifying Authority and the Department of Transport had to be maintained in this period.

7.2.2 Department of Transport.

A meeting was held with the Department of Transport (DoT) to inform and discuss the planned decommissioning/removal of safety systems and safety equipment and the planned modifications of the navigational aids on CDP1.
The meeting concluded that exemptions from relevant regulations based on the future status of CDP1 had to be sought.

7.2.3 Certifying Authority (DNVC)

The Certifying Authority (CA) was kept informed through monthly status meetings. This activity started in April 1990.
The follow up was made by minutes of meeting, which contained the spesific requirements to be dealt with.

The Certificate of Fitness (COF) for CDP1 should be maintained for the future status. Amendments to the certificate was done twice.

- 1st. CDP1 was gas free
- 2nd. CDP1 decommissioning completed and exemptions given

The Operations Manual was kept updated as far as possible during the decommissioning period. During the last offshore survey of CDP1 the final set up of the manual was discussed with the CA and final content agreed upon.

Two surveys of the platform was performed by the CA.

The first was performed when the living quarters were abandoned and the second when the decommissioning work was complete.

The requirements in the survey reports have been dealt with by:

- necessary modifications done or scheduled
- updating of documentation.

7.3 EXEMPTIONS FROM REGULATIONS

7.3.1 General

The regulations were exemptions had to be sought were found in the Statutory Instruments (SI) under the Mineral Workings (Offshore Installations) Act.
The exemptions were sought from 4 to 6 weeks in advance of the requested date. It should be noted that no exemptions from CSON's will be given. This was experienced for the first application that was sent. Based on CSON 58 we chose to define the platform as "not normally manned" and based the application on this assumption. This was not accepted by the DEn, who reverted with the formal future status for the platform.
The platform would be classified as" normally manned" until the decommissioning work was completed, from that date the platform would be classified as "not normally manned".

Exemptions were sought for two periods:

i) CDP1 classified as "normally manned" (CDP1 gas free and living quarters abandoned)

ii) CDP1 classified as "not normally manned", decommissioning work completed

7.3.2 Temporary Exemptions

The exemptions needed for the period when CDP1 was classified as normally manned was:

SI 1019 Reg 22(9)	(Helicopter fuel & equipment)
SI 611 Reg 5 (1) & (2)	(Automatic fire detection system)
Reg 6 (1) & (2)	(Automatic gas detection system)
Reg 7	(Manual actuated fire alarm system)
Reg 8	(Remote control safety equipment)
Reg 9	(Fire mains system)
Reg 11	(Water deluge system)
Reg 12	(Automatic sprinkler systems)
Reg 15 (3)	(Low expansion foam system)
SI 486 Reg 5 (1)	(Survival crafts removal)

7.3.3 Permanent Exemptions

As CDP1 would be classified as "not normally manned" after decommissioning the below listed exemptions were required:

SI 1019 Reg 18 (5 & 1)	(Signalling equipment)
Reg 18 (4)	(Signalling Equipment)
Reg 22 (7)	(Helicopter operations)
Reg 30 (1)	(Operational Staff)
SI 611 Reg 5 (1 & 3)	(Automatic fire detection system)
Reg 6 (1 & 3)	(Automatic gas detection system)
Reg 16 (1)	(Fireman equipment)
SI 486 Reg 6 (1)	(Life buoys)
Reg 7 (1)	(Life jackets)
SI 289 Schedule 2, part V,	
Reg 2 (f)	(Helideck lightning)

8.0 CONCLUSION

The CDP1 decommissioning work was completed on the 8th of November after quite an intensive period of preparation and offshore work. The execution of work proved to be a valuable experience for the people involved, and some valuable knowledge was gained.

As can be seen from the previous chapters, the preparation time for the offshore tasks became rather short. This resulted in that more work had to be done on reimbursable price rather than on lump sum. Whether this had as a result that the final cost became higher than it could have been, is difficult to asess, but it is a fact that lump sum work provides the contractor with an intensive to maximise his efficiency, and thus increase his chance of a profit. Since he is in a competitive situation, this normally means that the prices given are lower than the corresponding cost for the same work on a reimbursable basis.

For this type of work, however, the difference seems to be marginal, as the majority of the tasks were dismantling and tearing down. Consequently, the short preparation time is not considered to have had any significant effect on the final cost.

From a safety point of view, the offshore work was very good. Only one of the three reported accidents involved injury to personnel. The two other accidents did not cause any damage to the installation. They might have been avoided had the preparation time been longer, but this is far from certain.

One valuable lesson learned from this effort, is that decommissioning work is far less time consuming than construction. The enclosure 3.2.3 shows that the totally expended man-hours were about 31% lower than estimated by Elf.

The contact made with the different authority entities proved very valuable during the decommissioning phase. As this was the first time such work was ever been done in U.K. waters, the authorities showed a great interest in what we were doing, and welcomed our initiative for the information meetings with great interest. They also proved very useful in supplying us with their points of view regarding the way we had to handle the applications necessary to satisfy the requirements of the British rules and regulations.

One important lesson from this is that sufficient time has to be allowed for the authorities to treat the different applications. Due to the relative short preparation time for this work, we had to issue the applications as we went along. Fortunately, the ground had already been laid when Department of Energy approved the Frigg Field Revised Development Plan in February 1990. This had laid down the principle for the decommissioning work, and as such formed the basis of our work. All in all, it is of great importance to keep the authorities informed at all times about what shall be done, and in this we feel we succeeded.

The planning of the offshore work was basically done by EAN. A detailed plan by tasks was made in the form of a precedence network. Here the sequence of the different tasks was determined with the aim of not "cutting the branch underneath" and to maintain the existing safety level throughout the operation. As became evident during the cause of work, the sequence had not been planned well enough, and some of the tasks had to be shuffled in time in order to accommodate the situation on the platform at any one time. Due to the planning programme set up on Artemis 9000, it was easy to see the delay caused by this shifting of tasks, and corrections could be done immediately to ensure completion within the time frame given. It has to be mentioned, however, that more time should have been spent on the planning function during the onshore preparation phase. This would most probably have allowed for a better utilization of the work force offshore.

The final cost of the CDP1 decommissioning work is estimated to be about 14.500.000,- NOK, which is about 50% of the original estimate. As said previously, the major part of the saving is the contingency factor which was, it seems, unnecessarily high. Other important factors influencing the final cost were caused by the estimated number of offshore man-hours were much higher than the actual hours spent, and that internal costs were lower than budgeted.

	Subject: **CDP1 DECOMMISSIONING**	**Date:** **6 March, 1990**
	Action: **P. SOLHAUG/J.P. FLEURY/J.T. LANGØEN/ A.Ø. PEDERSEN/C. DUVET**	**From:** **P.S. ENDRESEN/ E. HJELDE**
IM	**Info:** **N. GAMGIT/FFM/E. VOLLAIRE/OIM CDP1/ A. DUPORT/H. LYE/B.O. TVETERÅS/J.F. NADAUD/**	**Ref. No:** **311E-EC 90/ 11910/EH/tt**

With the approval of the revised Annex B by DEn, the split of responsibility for the works required to reach Decommissioned Status for CDP1 should be defined.

The following three phases are foreseen for the required work on CDP1:

Phase 1: **Parallel production and abandonment of wells**

From now until the last well has been cemented in the screen and with the installation made gas free.

Phase 2: **Final abandonment of wells**

From end of phase 1 until the drilling team has been demobilized.

Phase 3: **Decommissioning**

From end of phase 2 until the platform has been declared to be in a Decommisioned Status.

Responsible Entity

During all 3 phases FOD shall be responsible for the operation of CDP1; including the works required to make the various systems gas free.

DCD shall be responsible for the works related to the abandonment of the wells and obtaining the DEn's approval for the final abandonment of wells.

TCD shall be responsible for the remaining decommissioning works as defined in PD report "Manual for Decomissioning of the CDP1 Platform", dated 23.11.89. TCD is also nominated responsible for obtaining the approval from DnV - Certifying Authority and British Regulatory Authorities for the various steps in the decommissioning works on CDP1 leading to the final Decomissioning Status. Assistance from HSQA shall in this respect be requested.

If any diving is to be performed on CDP1 during summer 1990, this is the responsibility of MSD.

Works Coordination

A Coordination Group is nominated with the mandate to ensure a good coordination and definition of works between the decommissioning tasks and the production and abandonment of wells throughout the various phases defined above.

Cont.

This group consist of the following members:

TCD : B. Hegrum, Group Leader
PD : K. Kristiansen
L. Wathne
DCD : R. Kirkhus
ECD : H. Nordbø

MD shall be involved as deemed necessary.

Priority of Offshore Works (tentative dates indicated)

Phase 1: **Parallel production and abandonment of wells (Feb. '90 - Sept. '90)**

Priority for work on the platform during this phase will be:

Priority 1 Production and abandonment of wells
Priority 2 Gas freeing and draining of systems
Priority 3 Diving if required during summer season 1990
Priority 4 Preparatory work for decommissioning

Platform manning is expected to be unchanged during this period.

Phase 2: **Final abandonment of wells (Oct. '90 - Dec. '90)**

Priority for work on the platform during this phase will be:

Priority 1 Final wells abandonment
Priority 2 Decommissioning work and draining of systems no longer used.

Platform manning during this phase will be adjusted to fill minimum manning to operate utilities and living quarter. The emergency organization will be maintained using the personnel available onboard.

Phase 3: **Decommissioning (Jan. '90 - March '90)**

CDP1 is physically isolated from the reservoir and topside production systems are made inactive. Only activities onboard will be the various decommissioning tasks.

PD and MD will secure sufficient manning to operate utilities/living quarter as required by TCD's decommissioning works.

P.S. ENDRESEN **E. HJELDE**

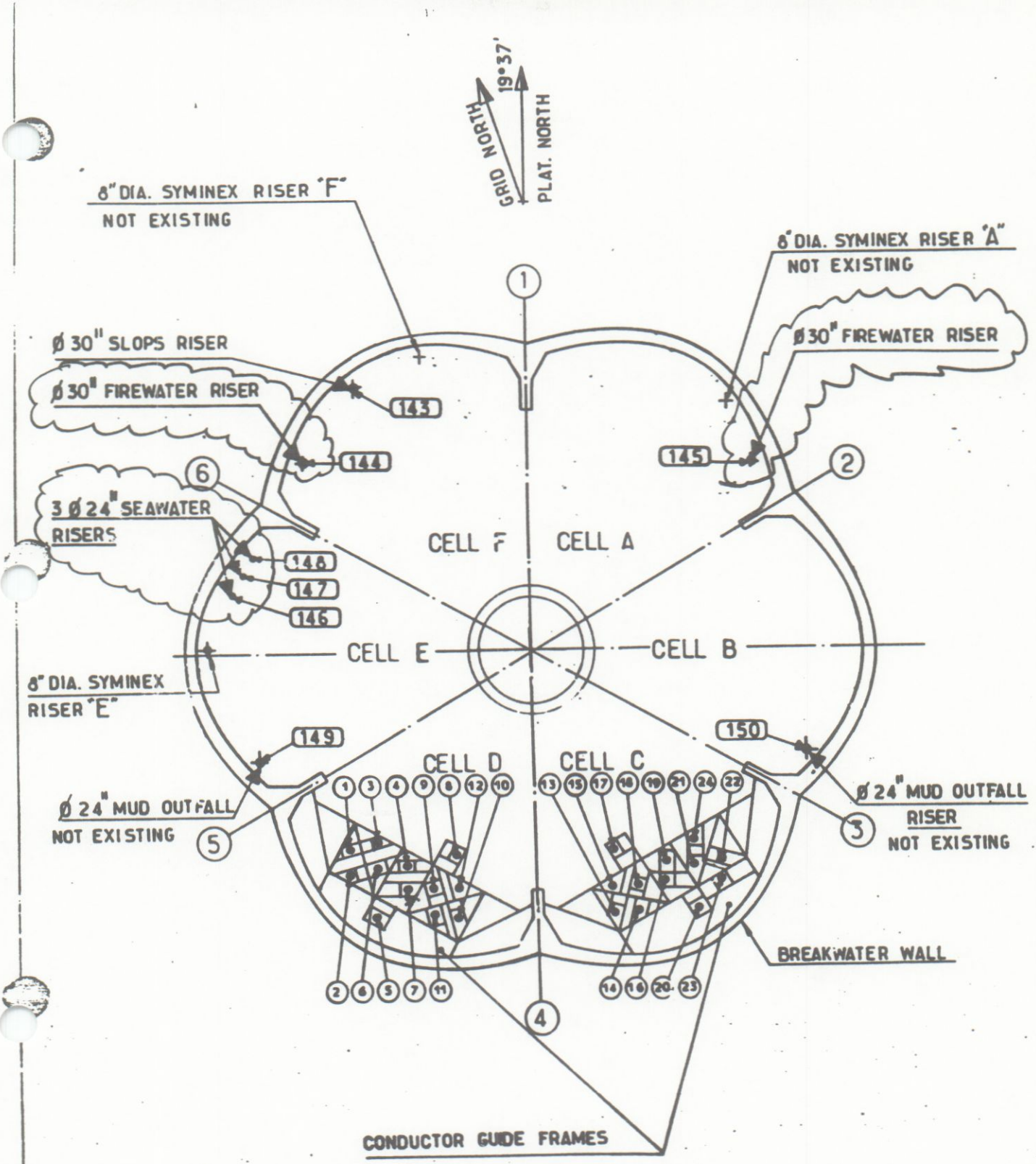

Fig. 2.1

NOTES

FOR SYMINEX RISERS SEE SECTION 6
FOR CONDUCTOR GUIDE FRAME SEE SECTION 4

Rev.	Date	DESCRIPTION	by	app.
1	12 83	UPDATED	HC	HC

Contractor JVD 1029 50_01

elf aquitaine norge a/s
p.o.box 168
4001 Stavanger

elf
FRIGG FIELD

Job no.	Installation	System
	CDP 1	UNDERWATER
Scale —	UTILITY RISERS GENERAL LAYOUT	
Dwgr. no FF 91-36-35-1505	Rev. 1	Sheet —

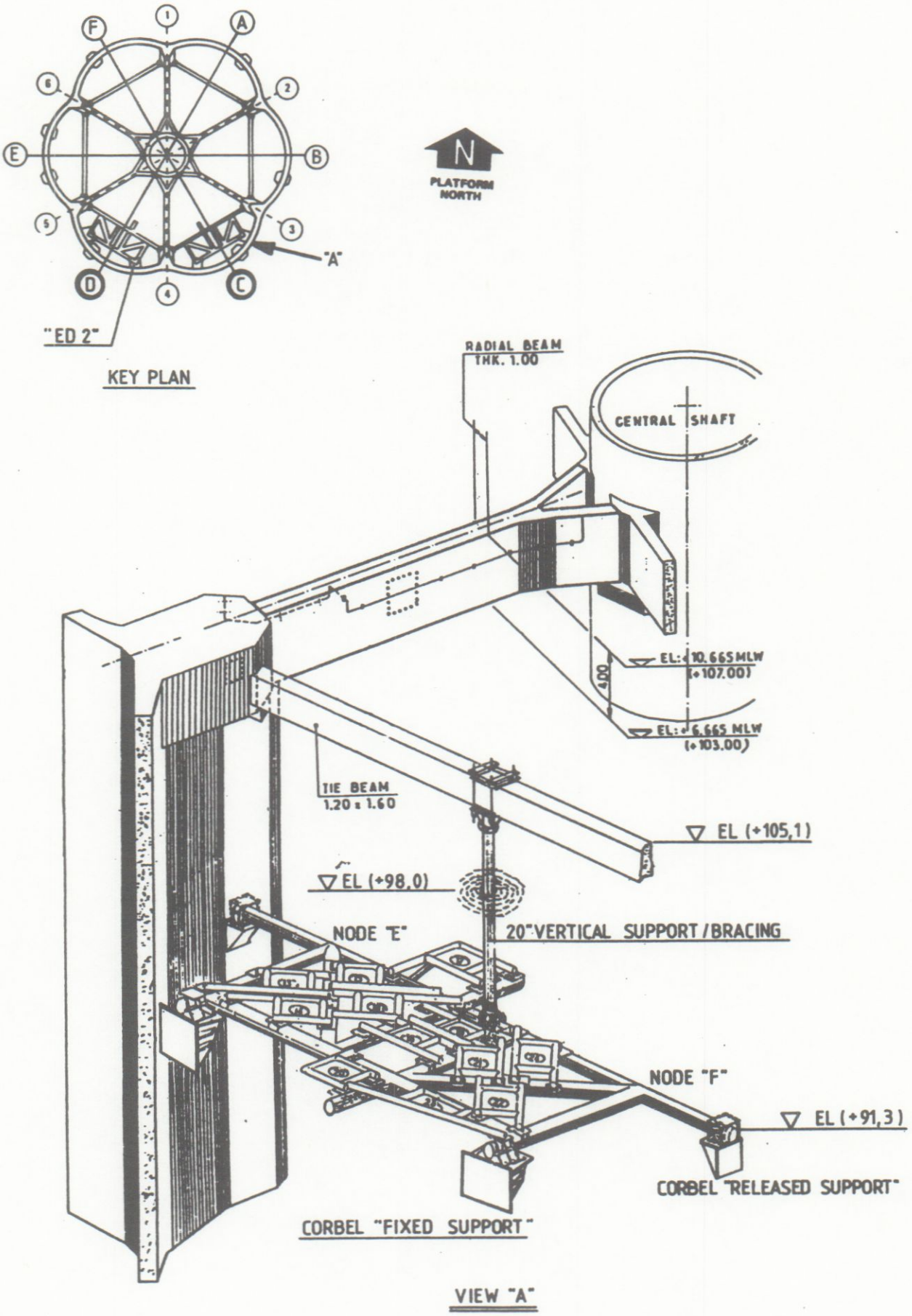

FIG. 2.2 OVERALL VIEW OF THE ADDITIONAL BRACING

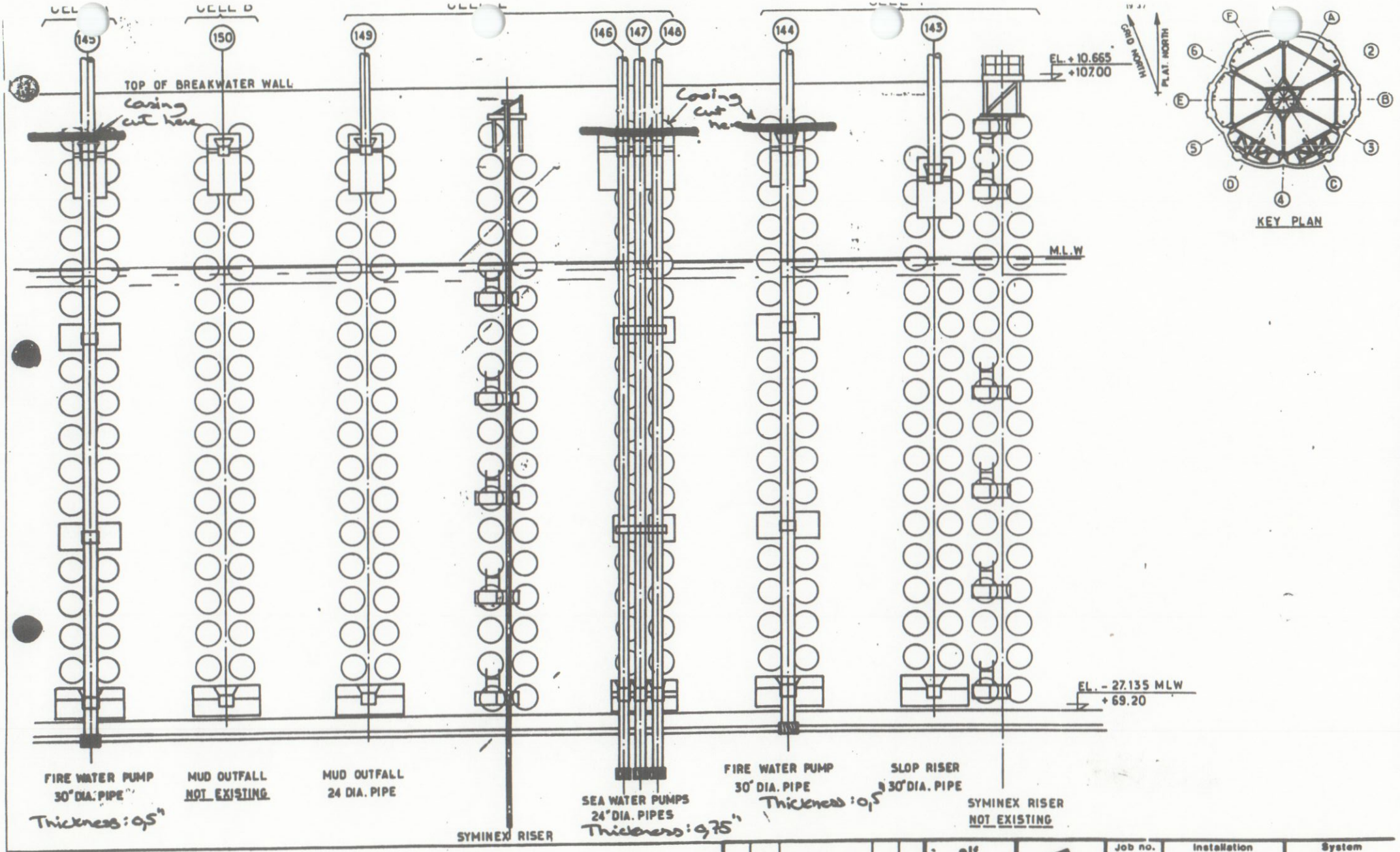

Fig. 2.3.

NOTES:

- FOR LOCATION OF RISERS ON B.W.W SEE SK. FF 91-36-35-1141 to 1146
- FOR DETAIL OF SYMINEX RISERS SEE SECTION 6

Rev.	Date	DESCRIPTION	by	app.
1	12 83	REDRAWN	HC	HC

Contractor JVD 1029-50-02

elf aquitaine norge a/s
p.o.box 168
4001 Stavanger

elf
FRIGG FIELD

Job no.	Installation	System
	CDP 1	UNDERWATER
Scale 1:200.	UTILITY AND SYMINEX RISERS GENERAL ELEVATION	
Dwgr. no. FF 91-36-35-1506	Rev. 1	Sheet

elf aquitaine norge a/s

CDP1 DECOMMISSIONING TASK SHEET

TITLE: BUCYRUS ERIE MK60 CRANE REMOVAL	**TASK NO.:** 40M005
SYSTEM: UTILITIES	**PAGE:** 1 of 2
SUB-SYSTEM: LIFTING APPLIANCES	**DATE:** 15.05.90 **REV.:** 01

TASK DESCRIPTION:

Install jacking platform and skidding frame as required for removal of the crane.
Disconnect boom tip section and boom insert sections (3 stk.).
Disconnect boom foot section.
Remove retainers and slew ring bolts.
Jack the crane up and pull it into the skidding frame.
When the crane is on the pipe-deck, dismantle A. frame and winches until the National crane is able to lift the revolving frame onto a supply boat.
Remove jacking platform.
Install a cover plate on the pedestal flange with bolts.
The new skidding frame to be left connected to the crane pedestal.
The crane to be sent onshore for storage. Weight of crane: 41.204 kg.
Contractor shall design, supply and install all necessary temporary lifting and rigging equipment.

DRAWINGS: MK60 Marine crane specifications.	**REFERENCE TASKS:** 45E010

MATERIALS/EQUIPMENT:

MANHR. ESTIMATE:	**MANHRS. ACTUAL:**
CONTRACTOR REPRESENTATIVE: **DATE:** **EAN REPRESENTATIVE:** **DATE:**	**SYSTEM RESPONSIBLE:** **DATE:**

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Encl. 2.4.2.2

CONTRACT No.: 90.066

VARIATION ORDER No.: 006/25M017

Date: 26.07.90

VARIATION ORDER

Project: CDP1 DECOMMISSIONING

Originator: COMPANY ☐ CONTRACTOR ☐

CONTRACTOR: AKER MAINTENANCE A/S

AFE:

Title of VARIATION: REMOVAL OF STUD BOLTS - TASK 25M006

Cost Account: 601 910 2

Location: TP1 UPPER LEVEL ZONE 4

Description of VARIATION:

All stud bolts had to be removed at first a oxy/acet cutting and then jacking with 45 ton jack. Actual work was far more than could be reasonably expected. The stud bolts were totally corroded to the lower flange.

New stud bolts will be installed with protection caps.

Manhour estimate: 80 - 31 = 49 hours.

The following documents form part of this VARIATION ORDER:

Task 25M007

The CONTRACT PRICE shall be adjusted as follows:

Actual manhours :

63 - 31 = 32 manhours X 249,-

Lump sum :

NOK 7.968,-

Time of Performance:	Effect on PROGRAMME:	Conditions of Payment:
Week 30/31-90	None	As per contract

The above variation to the SCOPE OF WORK, CONTRACT PRICE and PROGRAMME are all inclusive and make provision for any effect on all other areas of the CONTRACT.

	For COMPANY	For CONTRACTOR
Issued/Received	Date: 26.7.90 K.Rugeldal/L.Karlsen Sign:	Date: Sign:
Approval	Date: 27.07.90 Sign:	Date:
	Name: B. Hegrum	Name:
	Title: Constr. Sect. Head	Title:

elf aquitaine norge as

Encl. 2.4.2.3

VARIATION ORDER REQUEST

CONTRACT No: 90.066

VARIATION ORDER No:

Date: 23 JULY 90

Project: CDP1 DECOMMISSIONING

Originator: COMPANY ☒ CONTRACTOR ☐

CONTRACTOR: AKER MAINT STVGR

AFE: 64-1910

Title of VARIATION:

Cost Account:

Location: TP1 UPPER LEVEL ZONE 4

Description of VARIATION:

REF: TASK 25M006

ALL STUDBOLTS HAD TO BE REMOVED BY FIRST OXY/ACET CUTTING AND THEN JACKING OUT (45 TON JACK) THE STUDS ON LOWER FLANGE. (THE STUDS WERE TOTALLY CORRODED TO THE LOWER FLANGE.) WHEN THE NEW STUDBOLTS ARE INSTALLED WE SHALL USE PROTECTION CAPS & PROTECT THE REST OF THE STUDBOLT AS REQUIRED IN THE "GENERAL SPECIFICATION PIPING - 10-20-S001 - PAGE 20 OF 42 - ITEM 3.5.2"

MANHR. ESTIMATE:

* = SEE BELOW

The following documents form part of this VARIATION ORDER:

TASK 25M006

~~The CONTRACT PRICE shall be adjusted as follows:~~

* = ACTUAL WORK INVOLVED OFFSHORE WAS FAR MORE THAN COULD BE RESONABLY EXPECTED. COMPANY COULD CONSIDER ABSORBING SOME OF THE COSTS BETWEEN CONTRACTORS ESTIMATE & FINAL HOURS CONSUMED. (FINAL HOURS CONSUMED ESTIMATE 80 HOURS)

Materials/Equipment:

- NEW STUDBOLTS M70 x 820 PLUS PROTECTION CAPS ON ORDER THROUGH COMPANY

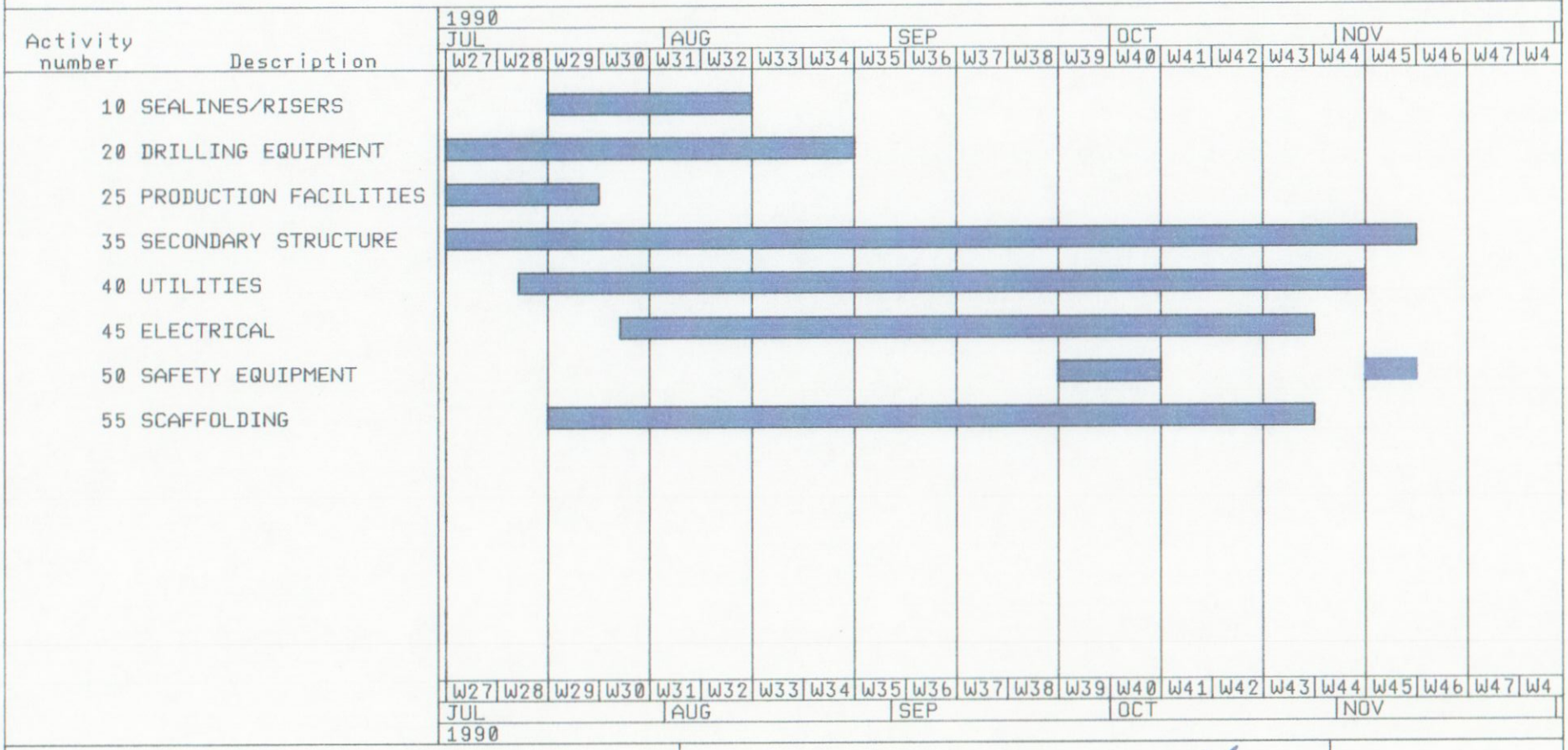
Time of Performance	Effect on PROGRAMME	Conditions of Payment:

The above variation to the SCOPE OF WORK, CONTRACT PRICE and PROGRAMME are all inclusive and make provision for any effect on all other areas of the CONTRACT.

	For COMPANY	For CONTRACTOR
Issued/Received	Date: 23 JULY - M. ORAM - Sign:	Date: 23 JULY - W. GRIMELID - Sign:
Approval	Date Sign Name Title	Date Sign Name Title

CDP-1 - DECOMMISIONING PROJECT

PROJECT PLANNING



Approved by P.Solhaug

Date: Sign:

Dated 17/05/90

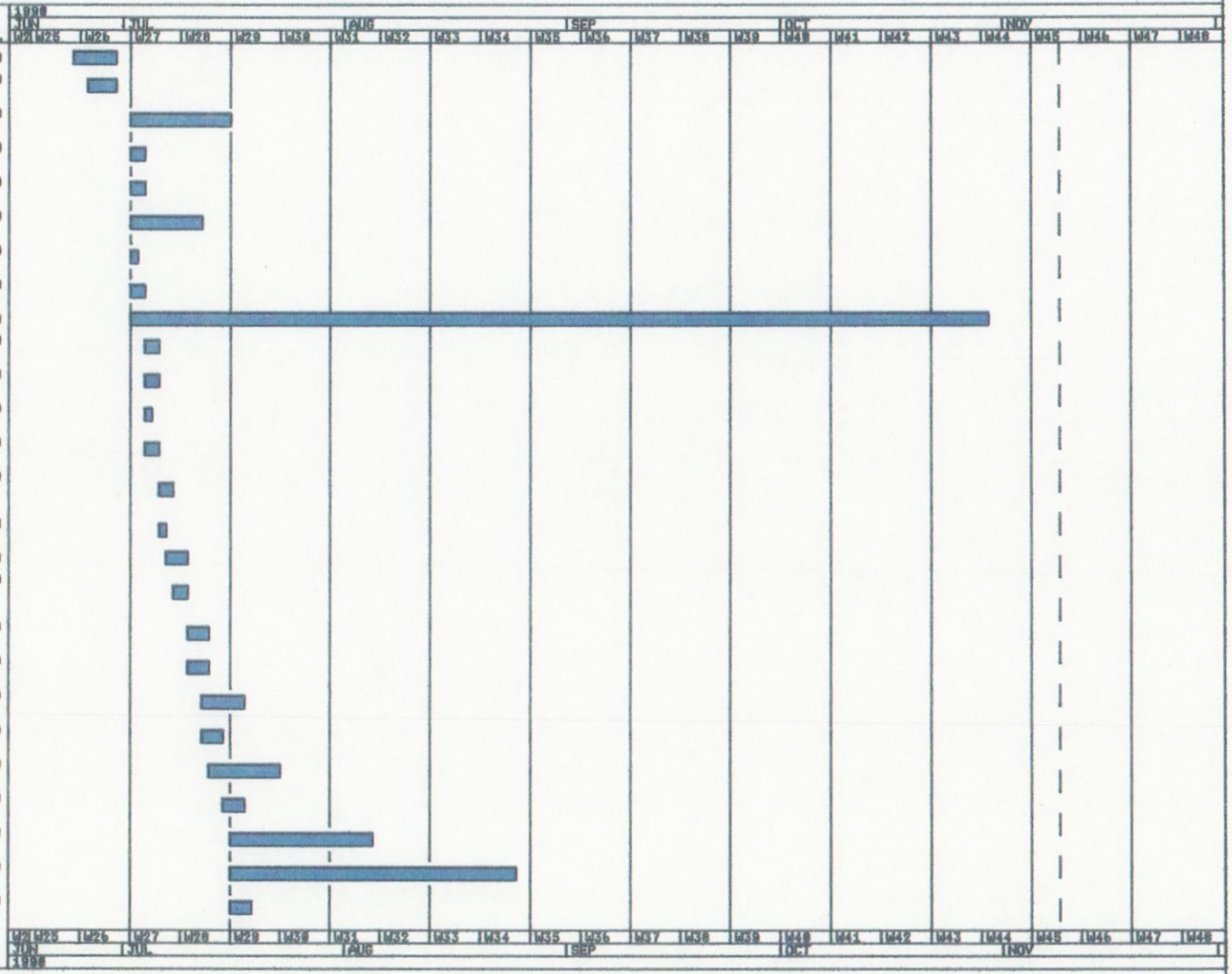
Encl. 2.5.1.1

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

Activity number	Duration	Description	% compl.
25MO15	6	REMOVE 24 FILTER UNIT	100
25MO13	4	STEAMING OF SAND SCRUBBERS/FILTERS CDP1	100
28MO84	14	REMOVE DRILLING EQUIPMENT INSIDE DERRICK	100
25PO82	2	BLINDING OF MAIN GAS TCP2	100
25PO83	2	BLINDING OF VENT SYSTEM DOWN STREAM M1-TP1	100
25MO85	10	STEAMING OF MAIN GAS CDP1	100
25PO86	1	BLINDING OF VENT SYSTEM TO LINE SYST. TP1	100
45EO89	2	DISCONNECT ALL CABLES FOR DERRICK	100
55SO81	120	SCAFFOLDING	100
28MO81	2	REMOVE 4 WINCHES ON DRILLFLOOR	100
28MO85	2	DRAINING OF HYDRAULIC SYSTEM DERRICK	100
28MO86	1	REMOVAL OF INDUSTRIAL PUMPS (SUBSTRUCTURE)	100
25PO84	2	BLINDING OF VENT SYSTEM M2-TP1	100
25MO86	2	REMOVE DISC. INSIDE CHECK VALVE 26'-P-181 TP1	100
25MO89	1	STEAMING OF VENT SYSTEM TP1	100
25MO10	3	STEAMING OF MAIN GAS TP1	100
25MO87	2	REMOVE DISC. INSIDE CHECK VALVE 26'-P-185 TP1	100
25MO11	3	STEAMING OF MAIN GAS TP1/TCP2	100
48MO11	3	PREPARATION OF STEAMING OF HP MUD SYSTEM	100
25MO14	6	REMOVE 10 X 8' BALL VALVE	100
48MO16	3	PREP. FOR CLEANING OF LP-MUD SYSTEM	100
25MO81	10	STEAM CLEAN VENT SYSTEM CDP1	100
48MO17	3	FLUSHING OF LP-MUD SYSTEM	100
28MO82	20	REMOVE PART OF DIESEL ENGINES	100
28SO83	40	REMOVE DERRICK & SUBSTRUCTURES	100
48MO88	3	PREPARE FOR STEAMING OF METH. SYSTEM	100



UPDATE PER 08-NOV-98

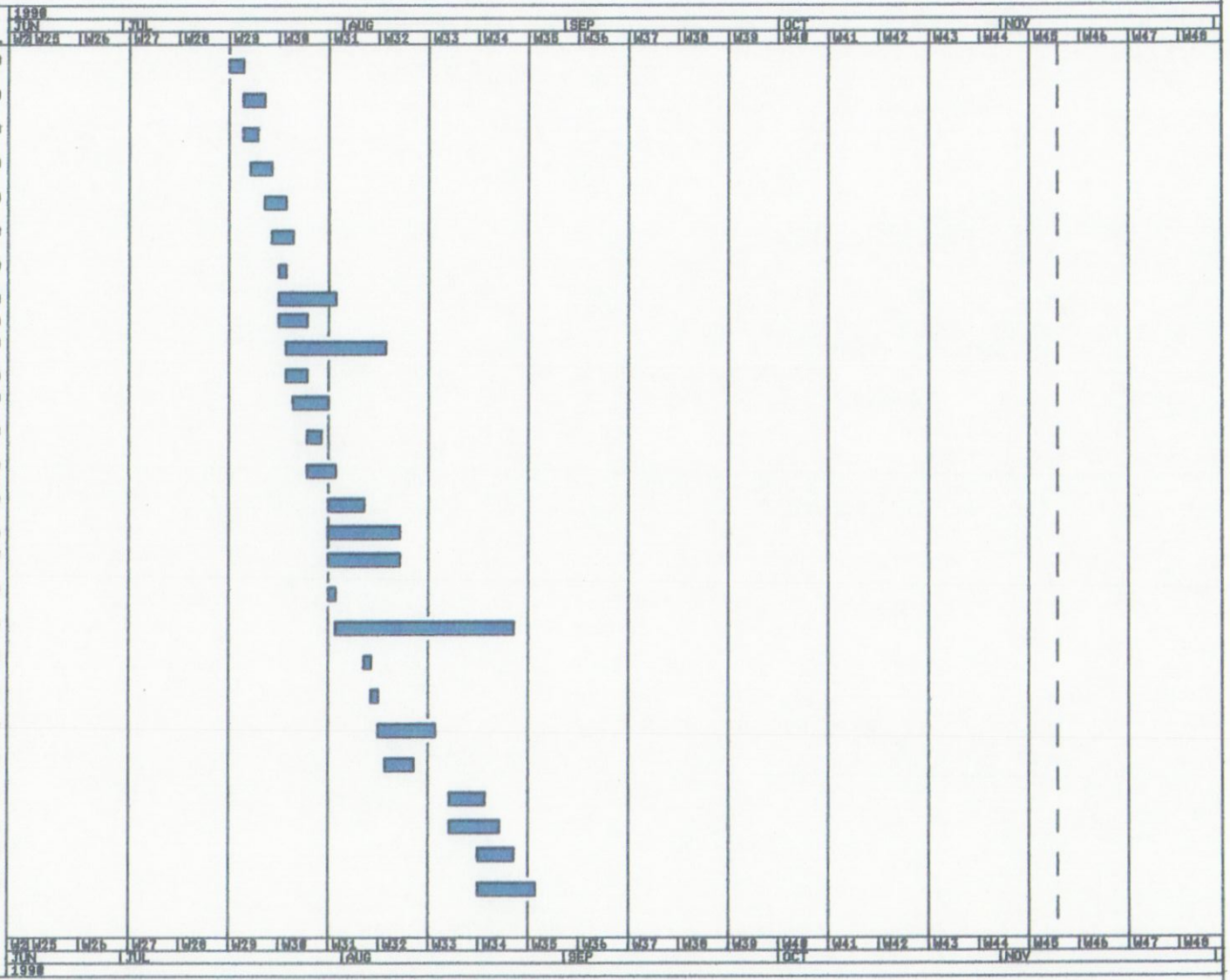
Encl. 2.5.1.2

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-09-98

Activity number	Duration	Description	% compl.
40MO10	2	REMOVAL OF CORROSION INHIBITOR SKID	100
40MO23	3	STEAMING OF LP MUD SYSTEM RETURN	100
40MO24	2	METH. WATER SYSTEM VENT TO AIR	100
10MO01	3	PIGGING OF SEALINE 26'-P-1012 TP1/CDP1	100
40MO12	3	STEAMING OF HP MUD SYSTEM	100
10MO02	3	PIGGING OF SEALINE 26'-P-1017 TP1/CDP1	100
25PO12	1	REMOVAL OF INLINE ITEMS ON VENT SYST. CDP1	100
35SO27	6	REMOVE FLARE BOOMS	100
45IO01	4	MODIFY GP MIMIC PANEL	100
35IO41	14	DISCONNECT PRODUCTION EQUIPMENT	100
40MO09	3	STEAMING OF METH. SYSTEM	100
10MO03	5	BLINDING OF SEALINE 26'-P-1012 CDP1	100
40MO22	2	DRAINING OF CLOSED DRAIN/SLOP SYSTEM	100
45IO03	4	MODIFY INTERFACE CABINET - TP1	100
10MO04	5	BLINDING OF SEALINE 26'-P-1017 CDP1	100
35SF23	10	PREFAB. NEW BRIDGE	100
35SF34	10	PREFAB. SUPPORTS FOR DECK TANKS MO	100
45EO13	1	DISCONNECT CABLES ON MASONEILEIN PUMPS	100
40MO14	25	REMOVE WELLHEAD HYDR. SYSTEM	100
10MO05	1	LEAK TESTING OF N2 FILLED SEALINE 1012	100
10MO06	1	LEAK TESTING OF N2 FILLED SEALINE 1017	100
10PO07	8	CORROSION PROTECTION IN J-TUBE	100
35IO47	4	DISMANTLE EDUCATION EQUIPMENT	100
35SO22	5	INSTALL NEW 'WALKWAY' BRIDGE	100
35SO35	7	INSTALL TANK SUPPORTS	100
35SO25	5	REMOVE WINDWALLS/INSTALL NEW HANDRAILS	100
35SO37	8	REMOVE CONDUCTOR GUIDE FRAME	100



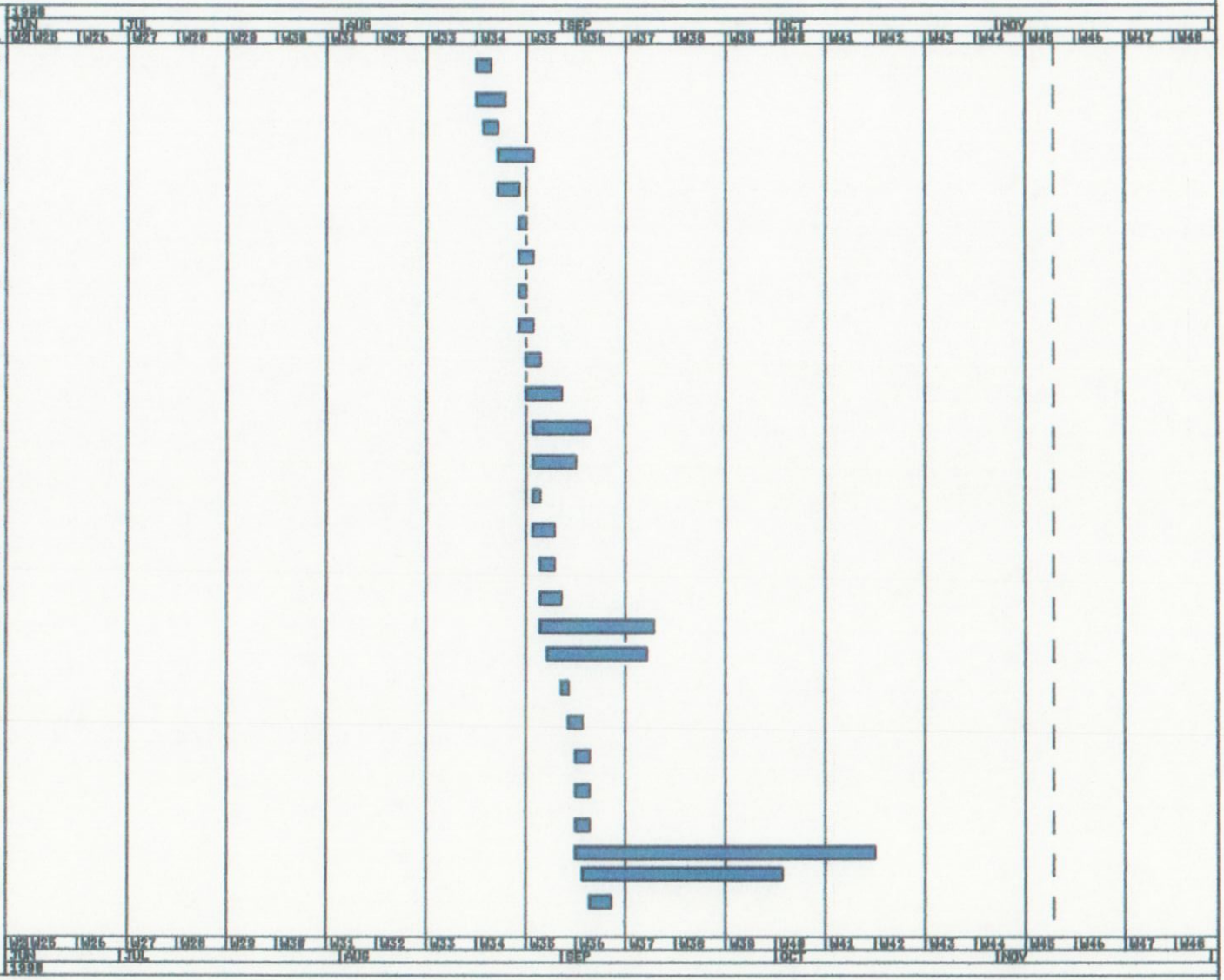
UPDATE PER 06-NOV-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

Activity number	Duration	Description	% compl.
48MO03	2	DISCONNECT AIR BOTTLES (MANRIDING WINCH)	100
45EO12	4	REMOVAL OFF ALL CABLES FOR DIVING MODULE	100
35SO29	2	CLOSE-OFF ESCAPE LADDER	100
35SO02	5	LOCKING OF ENTRANCE TO BREAKWATER	100
48MO28	3	DRAINING OF SEAWATER SYSTEM	100
48MO26	1	REMOVE 2 OF VIRAS COOLING PUMPS	100
48MO38	2	REMOVE SEAWATER PUMPS GA 186 A/B	100
48MO34	1	REMOVE SEAWATER PUMPS GA 187 A/B	100
45EO06	2	DISCONNECT PUMPS GA 112 A/B/C SEAWATER	100
48MO10	2	VENT & DRAIN COMPR. AIR SYSTEM	100
48MO33	5	INSTALL OF NEW NAV. AIDS & OBSTR. LIGHTS	100
48MO04	8	REMOVE SEAWATER PUMP GA 112 A/B/C	100
48MO36	6	REMOVE UTILITY RISER (EXCEPT FW & SW)	100
45EO08	1	REMOVAL OF CABLE FOR DIVING PLATFORM	100
58MO03	3	REMOVE LIFESAVING EQUIPMENT	100
48MO07	2	REMOVE INGERSOLL RAND AIR COMPRESSOR	100
48MO32	3	DISCONNECT PARTS OF THE BC COMPRESSORS	100
48SO37	16	REMOVE DIVING MODULE	100
45EO14	14	REMOVE & SEND ONSHORE ALL ACCUMULATOR CELLS	100
45EO02	1	DISCONN. CABLES FOR AIR COMPR.	100
48MO31	2	REMOVAL OF START AIR COMPRESSORS BA 1&2	100
35MO16	2	SAIPEM LQ EVACUATION 3RD FLR CABINS	100
35MO17	2	SAIPEM LQ EVACUATION 2ND FLR CABINS	100
35MO18	2	SAIPEM LQ EVACUATION 1RST FLR CABINS	100
35MO20	42	GENERAL CLEANING	100
48MO05	28	REMOVE MK68 CRANE	100
35MO04	3	NEW LQ EVACUATION 2ND FLOOR GYM/HOSPITAL	100



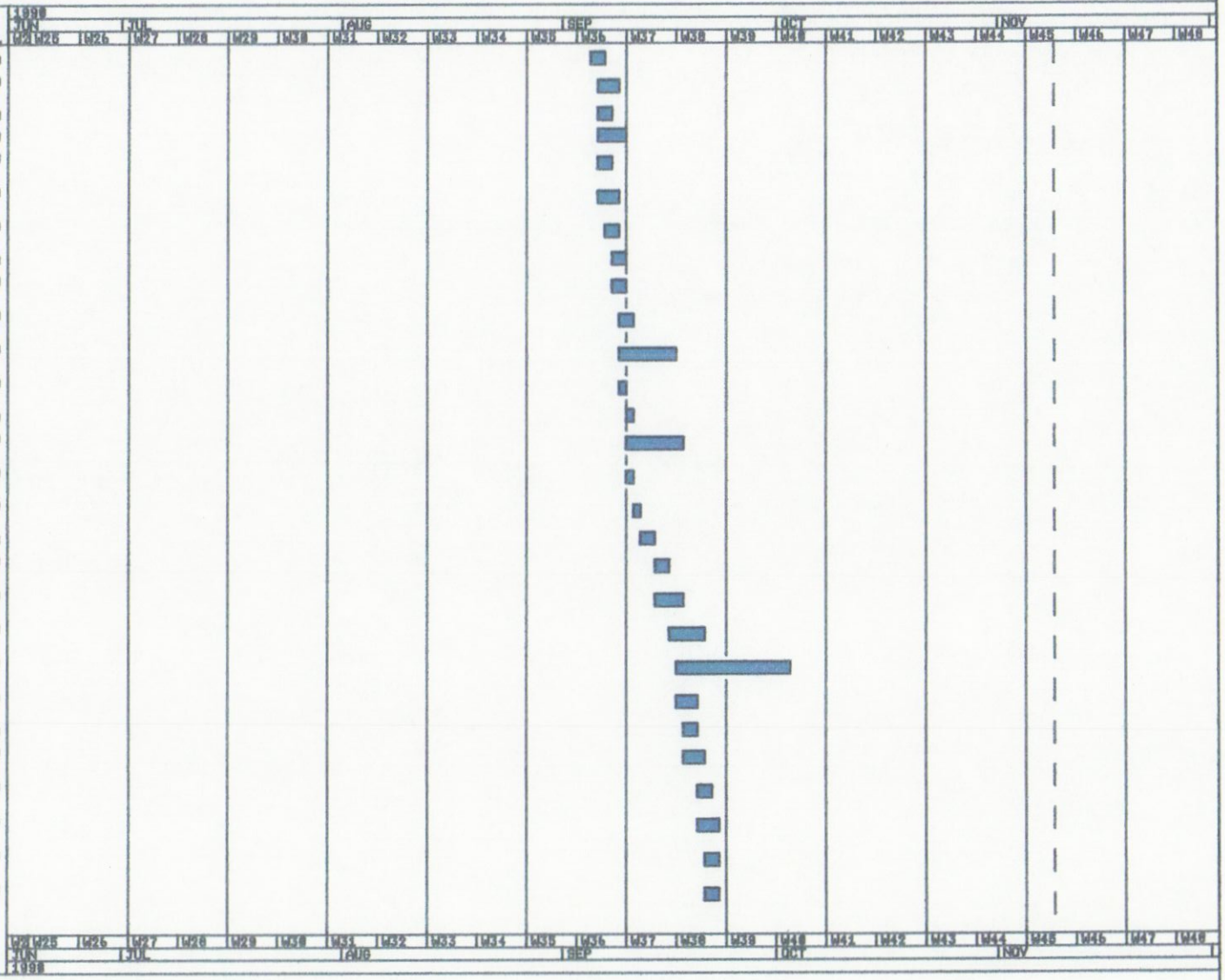
UPDATE PER 08-NOV-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

Activity number	Duration	Description	% compl.
35MO05	2	NEW LQ EVAC 3RD FLOOR	100
35MO06	3	PM4 1RST FLOOR EVACUATION	100
35MO07	2	PM4 2ND FLOOR EVACUATION	100
35IO43	4	DISCONNECT MTI SYSTEM	100
35IO45	2	REMOVE ENTERTAINMENT EQUIPMENT	100
40MO21	3	DRAINING OF FIRE WATER SYSTEM	100
35MO20	2	INSTALL 'NEW' WIND INDICATOR	100
35IO00	2	REMOVE TELEPHONE SYSTEM	100
40MO15	2	DRAINAGE OF POTABLE WATER	100
35IO42	2	DISCONNECT CONTROL ROOM EQUIPMENT	100
40MO02	8	REMOVE FIREWATER PUMP G101B W/RISER	100
45EO07	1	DISCONNECT PUMPS GA 101 A/B FIREWATER	100
35IO09	1	REMOVE DATA LINK MODEMS	100
40MO01	8	REMOVE FIREWATER PUMP G101A W/RISER	100
40MO29	1	REMOVE SOFT WATER PUMPS GA 105 A/B	100
35IO10	1	REMOVE STENTOPHONE SYSTEM	100
35IO11	2	REMOVE SX100 EXCHANGE	100
35IO12	2	DISMANTEL/REMOVE TT40 TELEMETRY EQUIPMENT	100
45EO10	4	DISCONNECT CABLE FOR MK60 CRANE	100
35IO13	5	REMOVE EQUIPMENT FROM RADIO ROOM	100
35MO26	16	REMOVE CORRODED PIPES & CABLETRAYS	100
60MO05	3	NEW FIRE FIGHTING EQUIPMENT HELIDECK	100
35MO46	2	REMOVE OIL STORAGE TANK	100
40MO13	3	PREPARATION OF STEAMING OF GAS,OIL SYSTEM	100
35MO19	2	REMOVE FIRE FIGHTING EQUIPMENT HELIDECK	100
60MO02	3	REMOVE ALL FIRE FIGHTING EQUIPMENT	100
35IO14	2	REMOVE RADIOS/WALKIE TALKIES	100
35IO15	2	NEW RIG MODULE EVAC. 1 FLR COF. SHOP/OFF	100



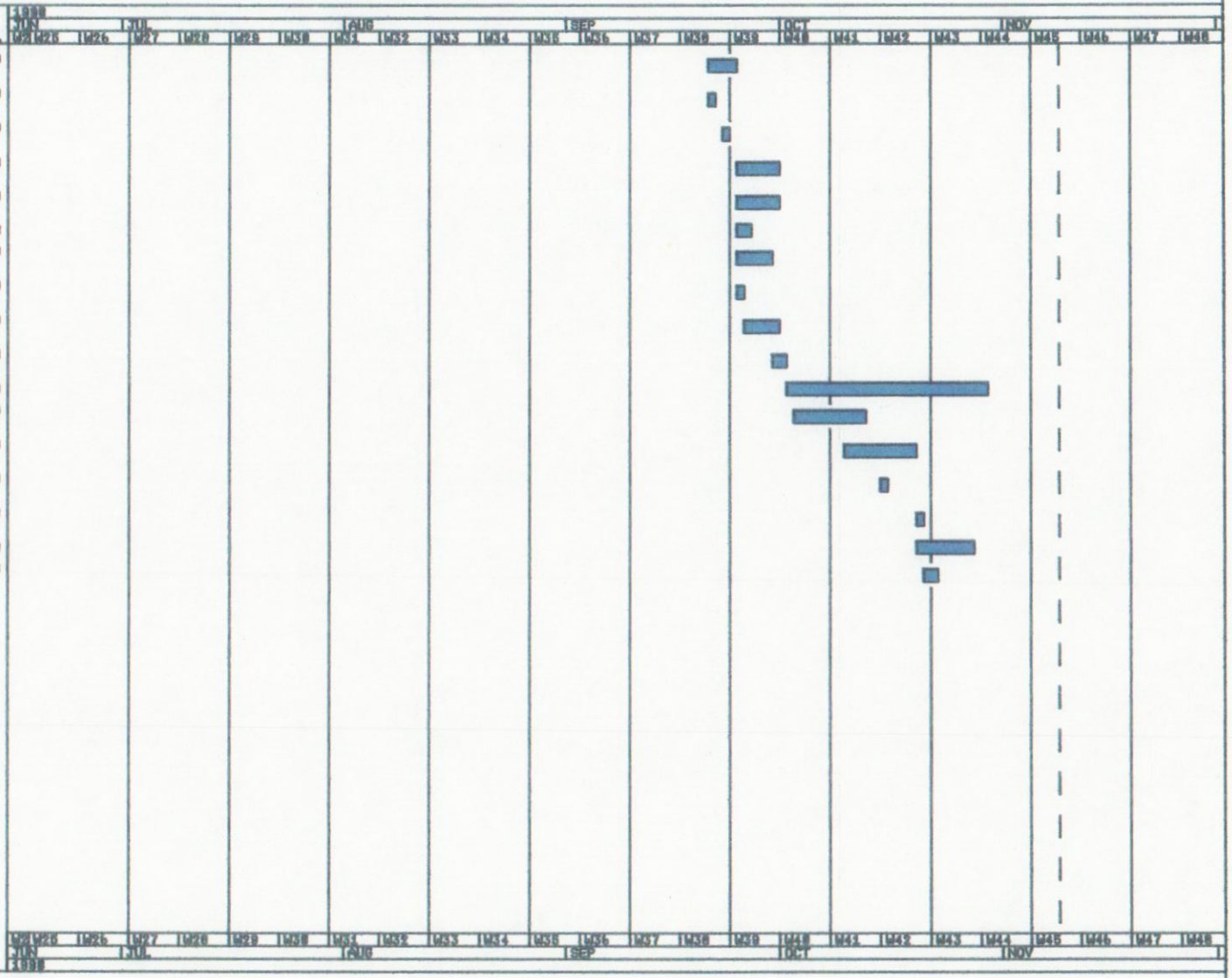
UPDATE PER 08-NOV-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

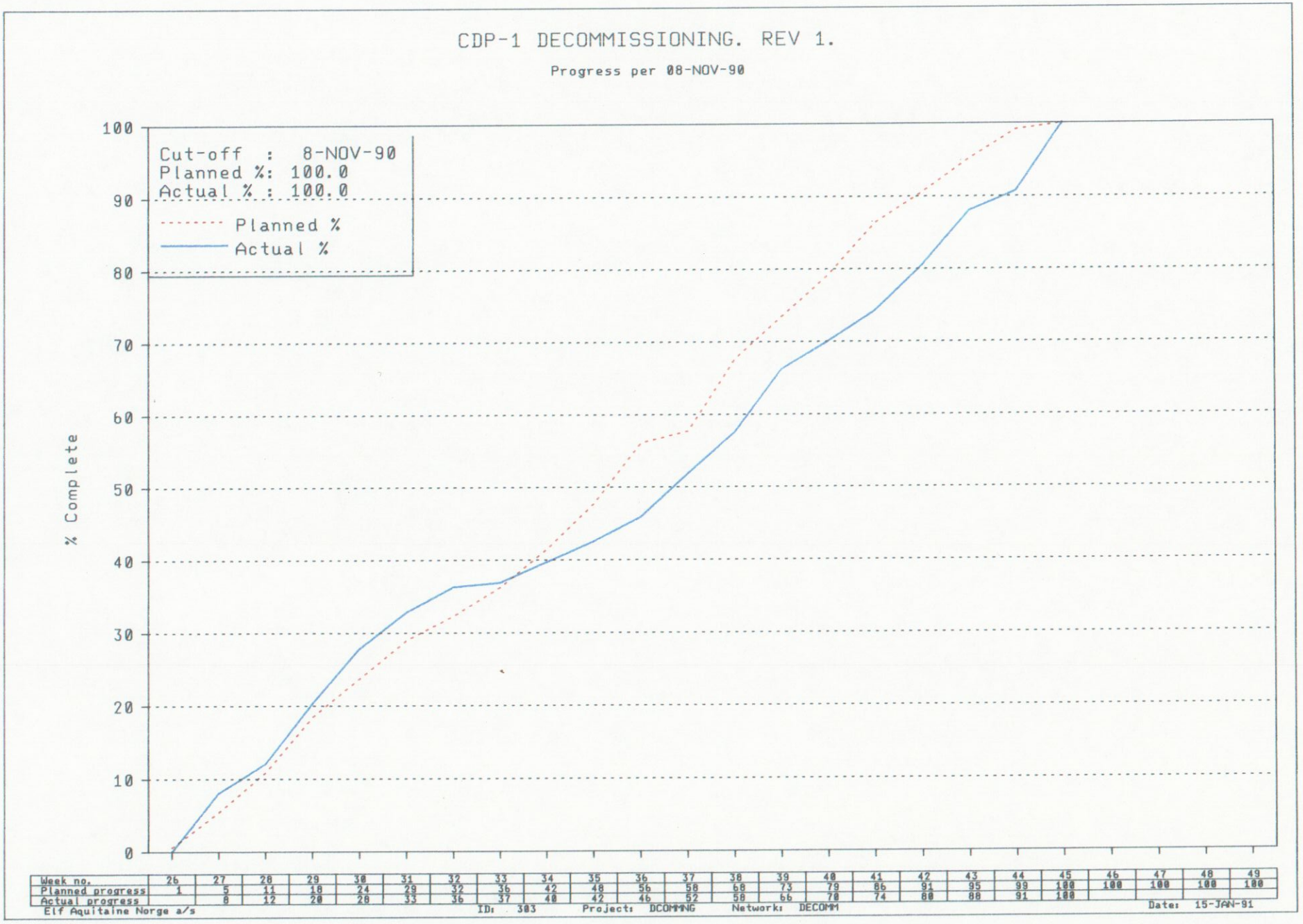
Activity number	Duration	Description	% compl.
48MO26	4	STEAMING OF GAS OIL SYSTEM	100
45EO16	1	DISCONNECT 2 OF DC GENERATORS	100
36IO36	1	REMOVE TERMINALS & PRINTERS FOR MIS	100
36IO48	6	DISCONNECT FIRE DETECTION EQUIPMENT	100
36IO44	6	DISCONNECT GAS DETECTION SYSTEM	100
48MO18	2	DRAINING OF STEAM SYSTEM	100
48MO27	5	REMOVAL OF 2 DC GENERATORS	100
45EO11	1	DISCONNECT ALL HALON BOTTLES	100
58MO84	5	DISCONNECT ALL HALON BOTTLES	100
48MO25	2	DRAINING OF SEAWATER TANK FB112	100
48MO86	20	REMOVE NATIONAL CRANE	100
38MO21	18	PAINTING/MARKING/LABELING ESCAPEWAY	100
35SO81	18	LOCKING OF ENTRANCE TO MODULES	100
45EO15	1	DISCONNECT CABLE FOR NATIONAL CRANE	100
45EO85	1	SHUT-OFF ALL CIRCUIT BREAKERS	100
58MO81	8	REMOVE 6 LIFEBOATS	100
45EO84	2	DISCONNECT POWER SUPPLY CABLE	100



UPDATE PER 08-NOV-98

CDP-1 DECOMMISSIONING. REV 1.

Progress per 08-NOV-90



Week no.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Planned progress	1	5	11	18	24	29	32	36	42	48	56	58	68	73	79	86	91	95	99	100	100	100	100	100
Actual progress		8	12	20	28	33	36	37	40	42	46	52	58	66	70	74	80	88	91	100				

Elf Aquitaine Norge a/s ID: 303 Project: DCOMMNG Network: DECOMM Date: 15-JAN-91

Encl. 2.5.1.7

** CDP1 DECOMMISIONING 1990 **

AKER MAINTENANCE STAVANGER A.S

AMS PROSJEKTNR: 55055

ACTIVITY	DESCRIPTION	EST MHRS	ACTUAL MHRS	PLAN PROGR	ACTUAL PROGR
20S003	REMOVE DERRICK & SUBSTRUCT.	1300	1124	100	100
40M0011	PREP. FOR STEAMING HP MUD SYST	166	110	100	100
45E0009	DISCON. ALL CABLES FOR DERRICK	58	58	100	100
35I041	DISCONNECT PROD. EQUIPMENT.	165	11	100	100
25P002	BLIND OF MAIN GAS TCP2.	30	90	100	100
25P012	REM. INL. ITEMS ON VENT S.CDP1	84	7	100	100
25P003	BL. VENT SYST. DOWN ST.M1-TP1.	22	4	100	100
25P004	BL. VENT SYST. DOWN ST.M2-TP1.	23	3	100	100
25M006	REMOVE DISC. 26"-P-101 TP1.	31	63	100	100
40M0012	STEAMING OF HP MUD SYSTEM.	30	43	100	100
25M011	STEAMING OF MAIN GAS TP1/TCP2.	110	134	100	100
40M0014	REMOVE WELLHEAD HYDR. SYST.	760	338	100	100
25M007	REMOVE DISC. 26"-P-105 TP1.	31	-	100	100
35I044	DISCONNECT GAS DET. SYSTEM.	154	102	100	100
25M001	STEAM CLEAN VENT SYST. CDP1	150	119	100	100
25P008	BL. VENT SYST. TO LIVE S.- TP1	8	8	100	100
10M003	BL.OF 26"-P-1012 CDP1 SEALINE	34	74	100	100
20M006	REMOVE IND. PUMPS(SUBSTR.)	22	-	100	100
20M001	REMOVAL OF WINCHES ON DRILLFL.	44	57	100	100
25M010	STEAMING OF MAIN GAS TP1.	60	58	100	100
10M004	BL. OF 26" -P-1017 SEAL. CDP1.	34	55	100	100
35I012	REMOVE TT40 TELEMETRY EQUIPM.	44	8	100	100
35S027	REMOVE FLARE BOOMS.	156	102	100	100
25M009	STEAMING OF VENT SYSTEM TP1.	25	58	100	100
10M005	LEAKTEST OF SEALINE 1012.	66	24	100	100
10P007	CORROSION PROTECTION OF J-TUBE	50	8	100	100
10M006	LEAK TEST OF SEALINE 1017.	66	38	100	100
35M026	REMOVE CORRODED PIP. & CABLETR	950	936	100	100
40M0003	DISCONN. AIR BOTTLES.(MANR.W.)	22	24	100	100
40M0016	PREP. FOR CL. OF LP MUD SYST.	242	152	100	100
40M0032	DISC. PARTS OF THE BC COMP.	82	49	100	100
20M002	REMOVE PARTS OF DIESEL ENG.	205	97	100	100
45E017	REMOVAL OF 2DC CONV.SET	300	76	100	100
25M016	CLEANING OF JET FUEL SYSTEM	30	32	100	100
35S002	LOCKING OF ENTR. TO BREAKWATER	42	12	100	100
35M028	INST. NEW WIND INDICATOR.	26	13	100	100
35S029	CLOSING OF ESCAPE LADDER.	15	10	100	100
40M0017	FLUSHING OF LP MUD SYST.	90	31	100	100
40M0033	INST. NEW NAV. AIDS % OBSTR.L.	100	284	100	100
40M038	DRAIN.OF CONTR.VALVE ACTIVATOR	268	6	100	100
40M0023	STEAMING OF LP MUD RETURN L.	30	35	100	100
40M0013	PREP. FOR ST. OF GAS/OIL SYST.	185	-	100	100

2 JUL	9 JUL	16 JUL	23 JUL	30 JUL	6 AUG	13 AUG	20 AUG	27 AUG	3 SEP	10 SEP	17 SEP	24 SEP	1 OCT	8 OCT	15 OCT	22 OCT	29 OCT	5 NOV

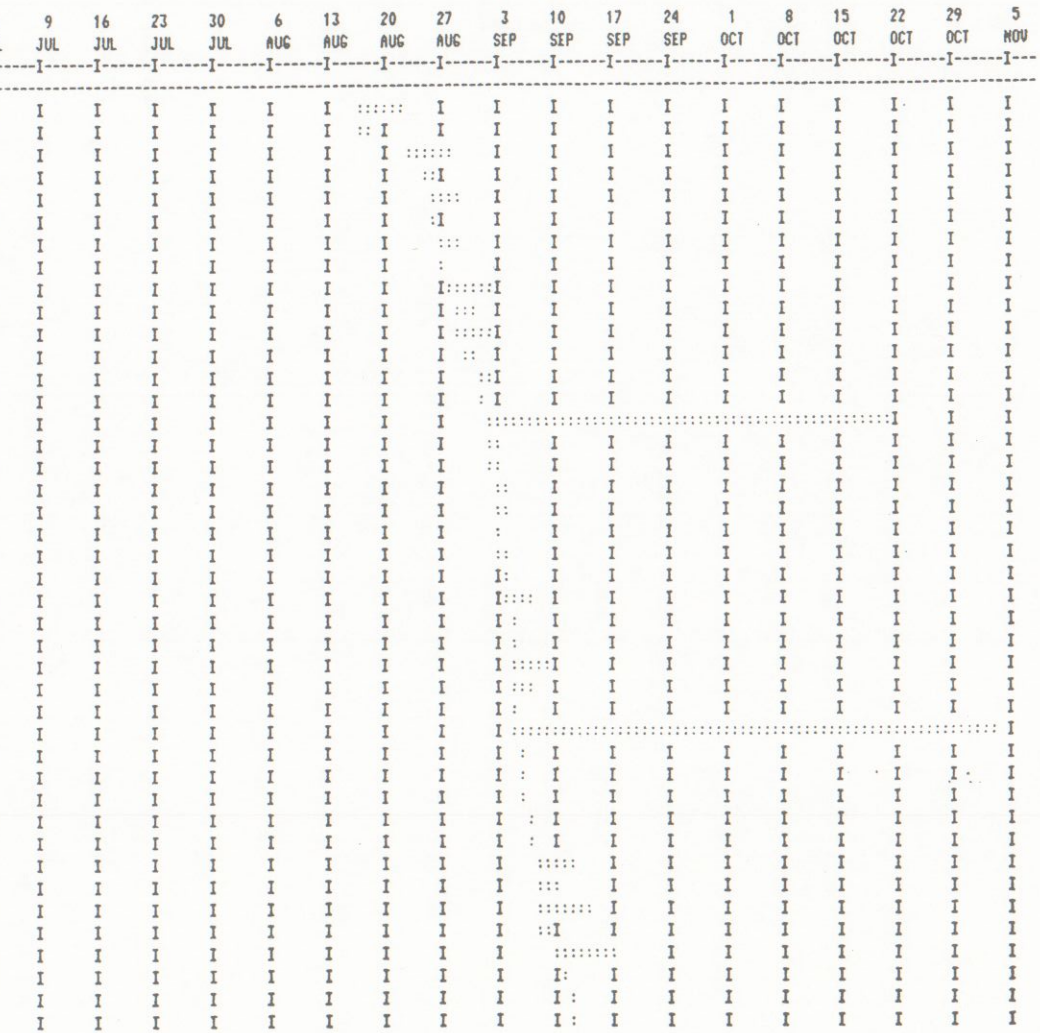
Encl. 2.5.2.1

** CDP1 DECOMMISIONING 1990 **

AKER MAINTENANCE STAVANGER A.S

AMS PROSJEKTNR: 55055

ACTIVITY	DESCRIPTION	EST MHRS	ACTUAL MHRS	PLAN PROGR	ACTUAL PROGR
35S022	INSTALL NEW "WALKWAY" BRIDGE.	200	549	100	100
40M0026	STEAMING OF GAS OIL SYSTEM.	50	-	100	100
35S025	REM. WINDWALLS/ INST. HANDR.	210	94	100	100
35S037	REMOVE CONDUCTOR GUIDE FRAME.	55	1976	100	100
35M021	PAINT./MARK./LABELLING ESC.W.	85	228	100	100
45E0008	REM. CABLE FOR DIVING MODULE.	13	9	100	100
40M0018	DRAINING OF STEAM SYSTEM.	88	57	100	100
45E0012	REM. OF ALL CABLES FOR DIV.M.	25	5	100	100
45E0014	REM. SEND OMSH. ALL ACC. CELLS.	148	115	100	100
40M0020	DRAINING OF SEAWATER SYSTEM.	66	36	100	100
40S0037	REMOVE DIVING MODULE.	230	209	100	100
35M016	EVAC. SAIPEM 3RD FLOOR CABINES	22	17	100	100
35M017	EVAC. SAIPEM 2ND FLOOR CABINES	28	16	100	100
40M0030	REM. SEA WATER PUMPS GA108A/B.	18	15	100	100
35M020	GENERAL CLEANING.	1250	1216	100	100
35M046	REMOVE OIL STORAGE TANK.	40	10	100	100
40M0015	DRAINAGE OF POTABLE WATER SYST	54	6	100	100
35I008	REMOVE TELEPHONE SYSTEM.	53	6	100	100
35I010	REMOVE STENTOPHONE SYSTEM.	32	4	100	100
35M018	EVAC. SAIPEM 1ST FLOOR CABINES	16	12	100	100
50M0001	REMOVE FIVE (5) LIFEBOATS.	66	21	100	100
35M004	NEW LQ EVAC. 2ND FLOOR GYM/H.	22	33	100	100
40M0021	DRAINING OF FIRE WATER SYSTEM.	90	47	100	100
35M005	NEW LQ EVAC. 3RD FLOOR.	22	27	100	100
35I014	REMOVAL OF RADIOS/WALKIE T.	14	7	100	100
35I040	DISCON. FIRE DET. EQUIPMENT.	136	24	100	100
40M0007	REMOVE INGERSOLL RAND AIR COMP	80	22	100	100
45E0002	DISC. CABLES FOR AIR COMPR.	8	-	100	100
40M0035	CRANE HANDLING	1155	711	100	100
35M006	PM4 EVACUATION - 1ST FLOOR.	17	22	100	100
35I038	REM. TERM. & PRINTERS FOR MIS.	6	6	100	100
40M0028	REM. 2 OF VIRAS COOLING PUMPS.	18	-	100	100
35M007	PM4 EVACUATION - 2ND FLOOR.	13	16	100	100
35I042	DISCONNECT CONTR. ROOM EQUIPM.	20	-	100	100
35S001	LOCKING OF ENTR. TO MODULES.	116	76	100	100
35I043	DISCONNECT NTI SYSTEM.	60	58	100	100
40M0001	REM. FIREW. PUMP G101A W. R.	220	114	100	100
40M0019	VENT & DRAIN COMPR. AIR SYSTEM	55	40	100	100
50M0002	REM. ALL FIRE FIGHTING EQUIPM.	196	90	100	100
35I047	DISM./REM. EQUIPM. FOR EDUCAT.	22	11	100	100
35I045	REMOVE ENT. EQUIPMENT.	26	12	100	100
45E0007	DISCON. PUMPS GA 101 A/B F.W.	8	58	100	100



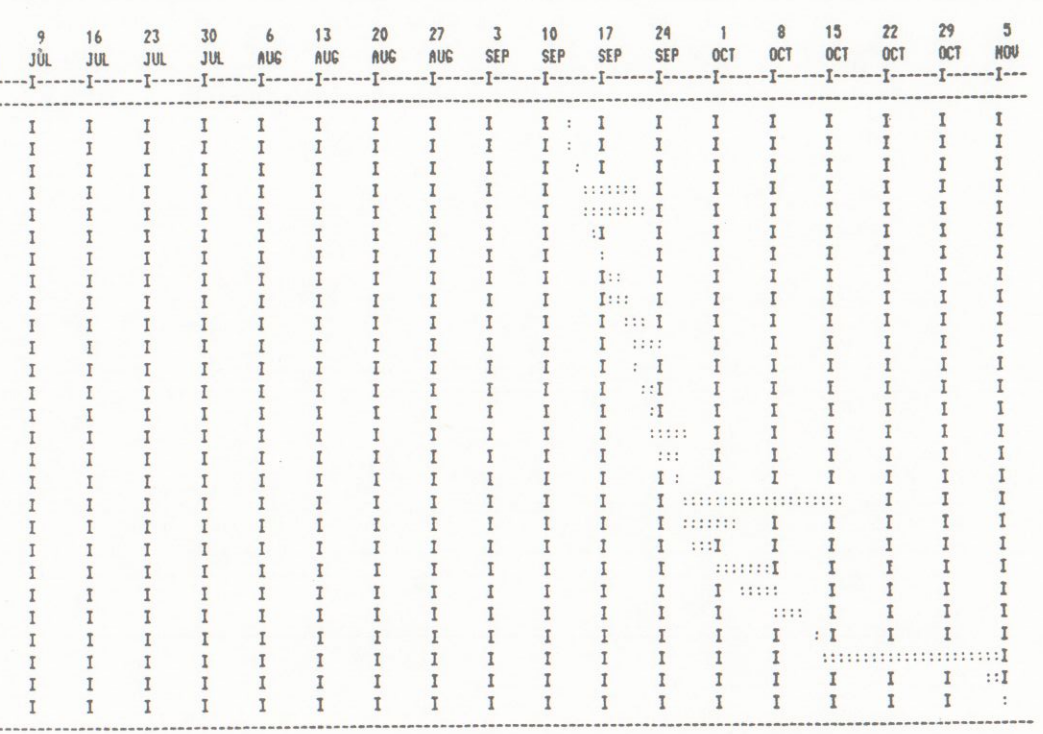
Encl. 2.5.2.2

** CDP1 DECOMMISIONING 1990 **

AKER MAINTENANCE STAVANGER A.S

AMS PROSJEKTNR: 55055

ACTIVITY	DESCRIPTION	EST MHRS	ACTUAL MHRS	PLAN PROGR	ACTUAL PROGR
40M0029	REM. SOFTWATER PUMPS GA 105A/B	18	15	100	100
45E0006	DISC. PUMPS GA 112A/B/C S.W.	10	7	100	100
40M0034	REM. SEAWATER PUMPS GA 107A/B.	18	14	100	100
40M0002	REM. FIREW. PUMP G101B. W.R.	220	69	100	100
40M0004	REM. SEAW. PUMP GA112 A/B/C.	290	41	100	100
45E0011	DISCONNECT ALL HALON BOTTLES.	16	3	100	100
35I009	REMOVE DATA LINK MODEMS.	13	6	100	100
35I011	REMOVE SX100 EXCHANGE.	44	6	100	100
50M0003	REMOVE LIFESAVING EQUIPMENT.	78	29	100	100
35I013	REMOVAL OF EQUIPM. RADIO ROOM.	66	28	100	100
35S035	INSTALL TANK SUPPORTS.	100	393	100	100
40M0025	DR. OF SEAWATER TANK FB 112.	13	9	100	100
40M0022	DR. OF CLOSED DRAIN/ SLOP SYST	55	8	100	100
35I015	EVAC. 1ST FLOOR COF.SHOP/OFF.	18	12	100	100
40M0036	REM. UTILITY RISER.(EX. FW/SW)	155	97	100	100
45E0010	DISC. CABLE FOR MK70 CRANE.	80	14	100	100
40M0031	REM. START AIR COMP. BA1 & 2.	27	11	100	100
40M0005	REMOVE MK 60 CRANE.	1250	940	100	100
45I0001	MODIFY QP MIMIC PANEL.	300	400	100	100
50M0004	DISCONNECT ALL HALON BOTTLES.	66	36	100	100
35M019	REMOVAL OF F.F.EQUIPM. HELID.	165	17	100	100
45I003	MODIFY INTERFACE CABINET TP1.	100	100	100	100
50M0005	NEW FIRE F. EQUIPM. FOR HELID.	105	9	100	100
45E0015	DISCON. CABLE FOR MAT. CRANE.	17	-	100	100
40M0006	REMOVAL OF NATIONAL CRANE.	1650	475	100	100
45E0004	DISCONNECT POWER SUPPLY CABLE.	44	44	100	100
45E0005	SHUT-OFF ALL CIRCUIT BREAKERS.	27	3	100	100
	TOTAL	16308	13210	100.0	100.0
35SF34	PREFAB SUPPORTS FOR PUMP/TANK	142	152	100	100
35SF23	PREFAB WALKWAY BRIDGE	1200	1170	100	100
35SF03	PREFAB SKID FOR MK60 CRANE	460	520	100	100
35SF24	PREFAB SKID FOR NATIONAL CRANE	450	-	100	100
	TOTAL	2252	1842	100.0	100.0



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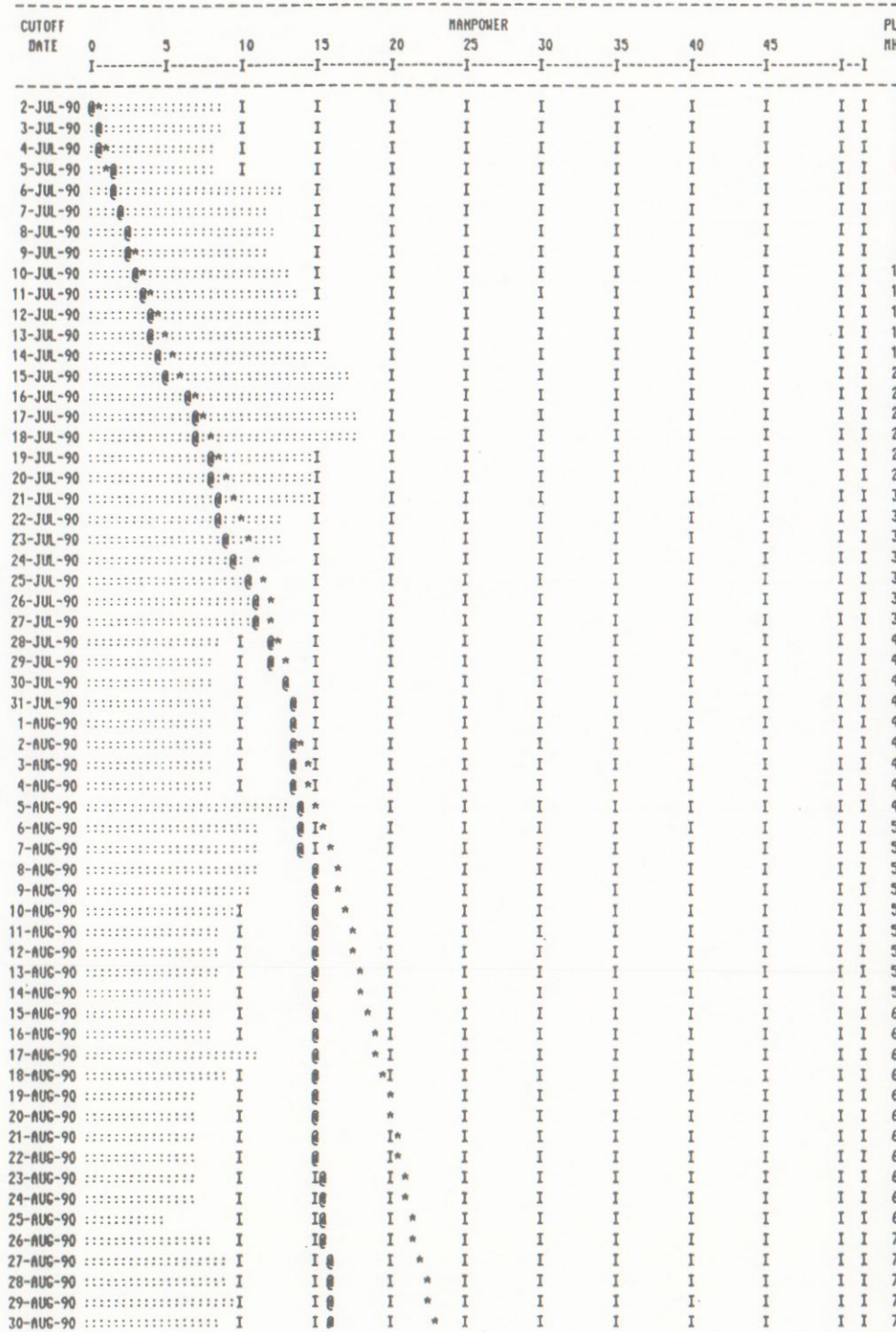
Encl. 2.5.2.3

CDP1 DECOMMISIONING 1990

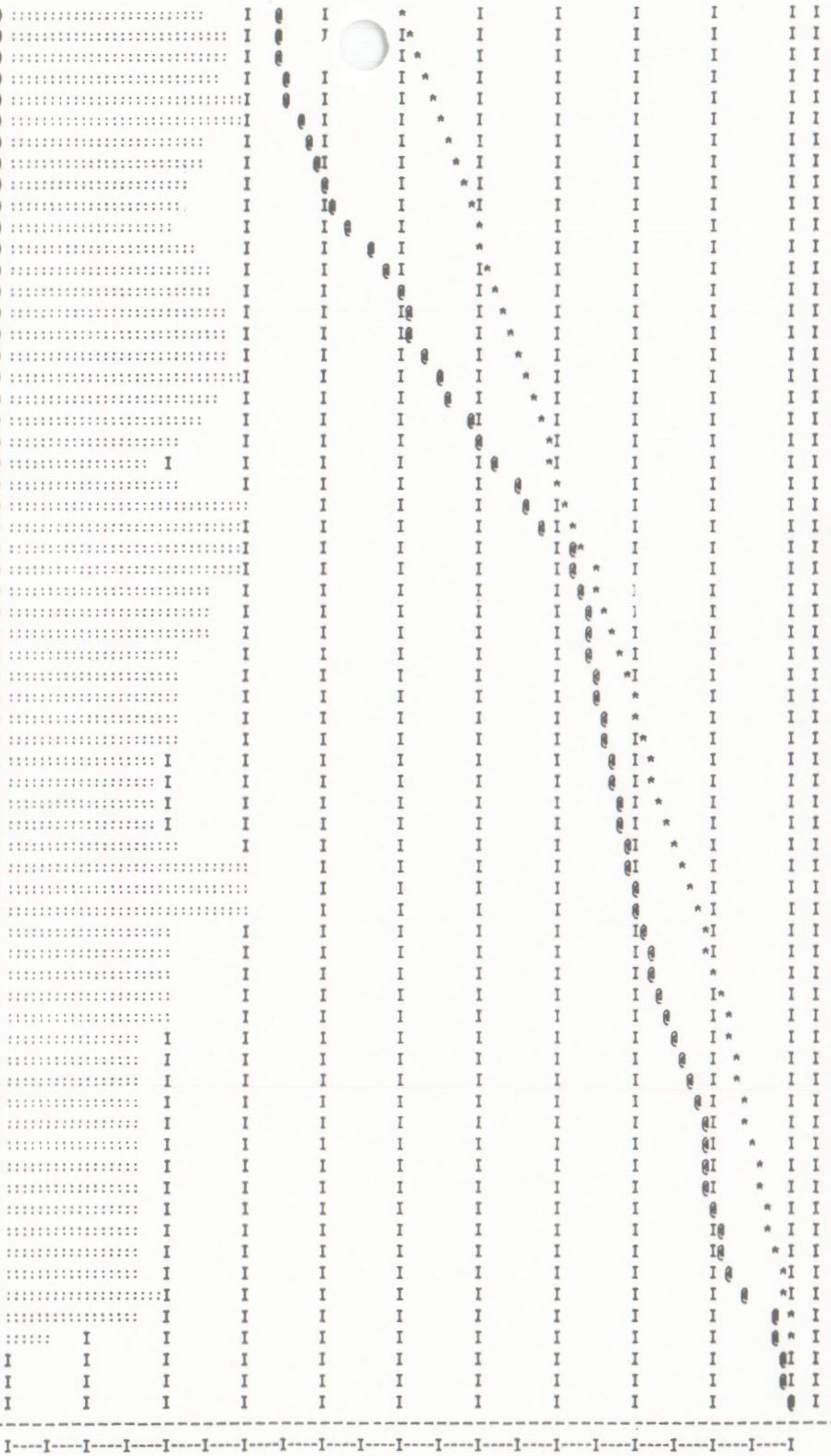
AKER MAINTENANCE STAVANGER A.S

AMS PROSJEKT 55055



CUTOFF DATE	PLAN MHRS	PLAN %	PLAN MHRS DATE	PLAN % DATE	TOTAL EARNED	PROGRESS	EARNED DATE	PROGRES DATE	ACTUAL MHRS TOTAL	ACTUAL MHRS DATE
2-JUL-90	103	0.6	103	0.6	16	0.1	0	0.1	10	10
3-JUL-90	205	1.3	103	0.6	114	0.7	98	0.6	70	60
4-JUL-90	303	1.9	97	0.6	195	1.2	81	0.5	142	72
5-JUL-90	400	2.5	97	0.6	456	2.8	261	1.6	224	82
6-JUL-90	548	3.4	148	0.9	505	3.1	49	0.3	278	54
7-JUL-90	689	4.2	140	0.9	635	3.9	130	0.8	364	86
8-JUL-90	830	5.1	141	0.9	781	4.8	147	0.9	480	116
9-JUL-90	970	6.0	140	0.9	863	5.3	81	0.5	576	96
10-JUL-90	1128	6.9	158	1.0	1026	6.3	163	1.0	693	117
11-JUL-90	1288	7.9	160	1.0	1107	6.8	81	0.5	764	117
12-JUL-90	1470	9.0	182	1.1	1221	7.5	114	0.7	846	153
13-JUL-90	1644	10.1	174	1.1	1319	8.1	98	0.6	928	82
14-JUL-90	1827	11.2	183	1.1	1481	9.1	163	1.0	1036	82
15-JUL-90	2032	12.5	205	1.3	1595	9.8	114	0.7	1156	120
16-JUL-90	2222	13.6	190	1.2	2051	12.6	456	2.8	1252	120
17-JUL-90	2429	14.9	207	1.3	2214	13.6	163	1.0	1330	174
18-JUL-90	2636	16.2	207	1.3	2263	13.9	49	0.3	1423	93
19-JUL-90	2810	17.3	174	1.1	2572	15.8	309	1.9	1543	121
20-JUL-90	2983	18.3	174	1.1	2621	16.1	49	0.3	1637	94
21-JUL-90	3157	19.4	174	1.1	2686	16.5	65	0.4	1735	98
22-JUL-90	3306	20.3	149	0.9	2751	16.9	65	0.4	1844	109
23-JUL-90	3454	21.2	149	0.9	2897	17.8	147	0.9	1946	102
24-JUL-90	3577	22.0	123	0.8	3109	19.1	212	1.3	2086	140
25-JUL-90	3698	22.7	121	0.7	3353	20.6	244	1.5	2238	152
26-JUL-90	3827	23.5	129	0.8	3549	21.8	195	1.2	2381	143
27-JUL-90	3955	24.3	129	0.8	3646	22.4	98	0.6	2468	143
28-JUL-90	4057	24.9	101	0.6	3842	23.6	195	1.2	2556	87
29-JUL-90	4155	25.5	98	0.6	3923	24.1	81	0.5	2624	68
30-JUL-90	4252	26.1	98	0.6	4281	26.3	358	2.2	2669	45
31-JUL-90	4350	26.7	98	0.6	4314	26.5	33	0.2	2730	61
1-AUG-90	4448	27.3	98	0.6	4330	26.6	16	0.1	2764	34
2-AUG-90	4545	27.9	98	0.6	4363	26.8	33	0.2	2817	53
3-AUG-90	4643	28.5	98	0.6	4379	26.9	16	0.1	2843	10
4-AUG-90	4741	29.1	98	0.6	4460	27.4	81	0.5	2891	48
5-AUG-90	4897	30.1	156	1.0	4493	27.6	33	0.2	2906	15
6-AUG-90	5030	30.9	133	0.8	4509	27.7	16	0.1	2918	12
7-AUG-90	5164	31.7	133	0.8	4574	28.1	65	0.4	2933	15
8-AUG-90	5297	32.5	133	0.8	4851	29.8	277	1.7	3005	72
9-AUG-90	5423	33.3	126	0.8	4851	29.8	0	0.0	3077	72
10-AUG-90	5539	34.0	115	0.7	4851	29.8	0	0.0	3161	84
11-AUG-90	5639	34.6	101	0.6	4851	29.8	0	0.0	3161	0
12-AUG-90	5740	35.3	101	0.6	4851	29.8	0	0.0	3286	125
13-AUG-90	5839	35.9	100	0.6	4867	29.9	16	0.1	3414	128
14-AUG-90	5934	36.5	95	0.6	4883	30.0	16	0.1	3493	79
15-AUG-90	6029	37.0	95	0.6	4883	30.0	0	0.0	3565	72
16-AUG-90	6123	37.6	95	0.6	4883	30.0	0	0.0	3625	60
17-AUG-90	6253	38.4	130	0.8	4916	30.2	33	0.2	3721	96
18-AUG-90	6363	39.1	110	0.7	4932	30.3	16	0.1	3836	115
19-AUG-90	6448	39.6	85	0.5	4932	30.3	0	0.0	3970	134
20-AUG-90	6533	40.1	85	0.5	4949	30.4	16	0.1	4092	122
21-AUG-90	6618	40.7	85	0.5	4949	30.4	0	0.0	4205	113
22-AUG-90	6702	41.2	85	0.5	4949	30.4	0	0.0	4324	119
23-AUG-90	6789	41.7	87	0.5	4965	30.5	16	0.1	4453	129
24-AUG-90	6875	42.2	87	0.5	4981	30.6	16	0.1	4577	124
25-AUG-90	6938	42.6	62	0.4	5014	30.8	33	0.2	4701	124
26-AUG-90	7034	43.2	96	0.6	5095	31.3	81	0.5	4825	124
27-AUG-90	7142	43.9	108	0.7	5128	31.5	33	0.2	4905	80
28-AUG-90	7250	44.5	108	0.7	5160	31.7	33	0.2	5005	100
29-AUG-90	7364	45.2	114	0.7	5176	31.8	16	0.1	5106	101
30-AUG-90	7468	45.9	104	0.6	5225	32.1	49	0.3	5210	104

Encl. 2.5.2.4



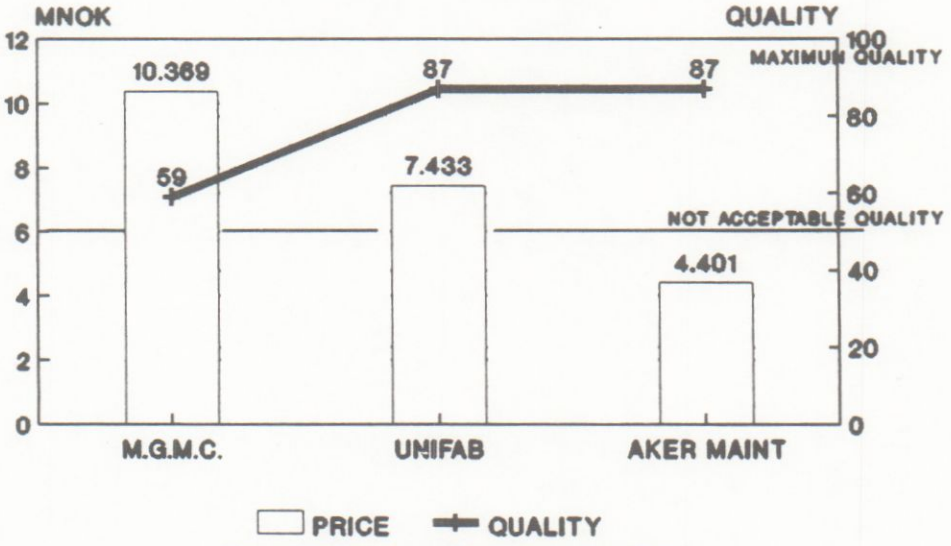
Date										
4-SEP-90	8195	50.3	145	0.9	5486	33.7	49	0.3	5671	114
5-SEP-90	8359	5[illegible]	165	1.0	5518	33.9	33	0.2	5700	29
6-SEP-90	8521	[illegible]	162	1.0	5551	34.1	33	0.2	5831	131
7-SEP-90	8674	53.3	154	0.9	5632	34.6	81	0.5	5916	85
8-SEP-90	8848	54.4	174	1.1	5746	35.3	114	0.7	6043	127
9-SEP-90	9022	55.4	174	1.1	5974	36.7	228	1.4	6178	135
10-SEP-90	9165	56.3	143	0.9	6104	37.5	130	0.8	6312	134
11-SEP-90	9310	57.2	145	0.9	6316	38.8	212	1.3	6437	125
12-SEP-90	9442	58.0	131	0.8	6576	40.4	260	1.6	6602	165
13-SEP-90	9570	58.8	128	0.8	6707	41.2	130	0.8	6748	146
14-SEP-90	9688	59.5	118	0.7	7065	43.4	358	2.2	6929	181
15-SEP-90	9824	60.4	136	0.8	7455	45.8	391	2.4	7117	188
16-SEP-90	9977	61.3	152	0.9	7781	47.8	326	2.0	7297	180
17-SEP-90	10126	62.2	149	0.9	8139	50.0	358	2.2	7525	228
18-SEP-90	10286	63.2	160	1.0	8269	50.8	130	0.8	7689	164
19-SEP-90	10446	64.2	160	1.0	8269	50.8	0	0.0	7988	0
20-SEP-90	10606	65.2	160	1.0	8627	53.0	358	2.2	8124	136
21-SEP-90	10778	66.2	172	1.1	8937	54.9	309	1.9	8436	151
22-SEP-90	10933	67.2	155	1.0	9132	56.1	195	1.2	8574	127
23-SEP-90	11079	68.1	146	0.9	9555	58.7	423	2.6	8714	140
24-SEP-90	11206	68.8	127	0.8	9850	60.4	277	1.7	8738	126
25-SEP-90	11308	69.5	102	0.6	10176	62.4	326	2.0	8869	132
26-SEP-90	11437	70.3	129	0.8	10584	64.9	408	2.5	8964	95
27-SEP-90	11617	71.4	181	1.1	10763	66.0	179	1.1	9063	100
28-SEP-90	11789	72.4	172	1.1	11089	68.0	326	2.0	9142	79
29-SEP-90	11960	73.5	172	1.1	11677	71.6	587	3.6	9745	603
30-SEP-90	12132	74.5	172	1.1	11742	72.0	65	0.4	9811	66
1-OCT-90	12282	75.4	150	0.9	11905	73.0	163	1.0	9886	75
2-OCT-90	12431	76.4	150	0.9	11986	73.5	82	0.5	9969	83
3-OCT-90	12581	77.3	150	0.9	12084	74.1	98	0.6	10066	98
4-OCT-90	12708	78.1	127	0.8	12133	74.4	49	0.3	10156	90
5-OCT-90	12834	78.8	127	0.8	12198	74.8	65	0.4	10229	73
6-OCT-90	12961	79.6	127	0.8	12264	75.2	65	0.4	10326	85
7-OCT-90	13088	80.4	127	0.8	12313	75.5	49	0.3	10445	120
8-OCT-90	13215	81.2	127	0.8	12410	76.1	98	0.6	10529	84
9-OCT-90	13321	81.8	107	0.7	12476	76.5	65	0.4	10626	97
10-OCT-90	13428	82.5	107	0.7	12590	77.2	114	0.7	10728	103
11-OCT-90	13535	83.1	107	0.7	12720	78.0	130	0.8	10872	144
12-OCT-90	13642	83.8	107	0.7	12769	78.3	49	0.3	10977	105
13-OCT-90	13765	84.6	124	0.8	12851	78.8	82	0.5	11081	104
14-OCT-90	13947	85.7	182	1.1	12932	79.3	82	0.5	11193	112
15-OCT-90	14129	86.8	182	1.1	13030	79.9	98	0.6	11344	151
16-OCT-90	14311	87.9	182	1.1	13112	80.4	82	0.5	11374	30
17-OCT-90	14430	88.6	119	0.7	13193	80.9	82	0.5	11490	117
18-OCT-90	14549	89.4	119	0.7	13340	81.8	147	0.9	11605	115
19-OCT-90	14668	90.1	119	0.7	13438	82.4	98	0.6	11720	115
20-OCT-90	14788	90.8	119	0.7	13536	83.0	98	0.6	11835	115
21-OCT-90	14907	91.6	119	0.7	13699	84.0	163	1.0	11950	115
22-OCT-90	15001	92.2	94	0.6	13927	85.4	228	1.4	12065	115
23-OCT-90	15095	92.7	94	0.6	14057	86.2	130	0.8	12182	117
24-OCT-90	15190	93.3	94	0.6	14155	86.8	98	0.6	12287	105
25-OCT-90	15284	93.9	94	0.6	14400	88.3	245	1.5	12382	96
26-OCT-90	15378	94.5	94	0.6	14482	88.8	82	0.5	12439	57
27-OCT-90	15472	95.1	94	0.6	14498	88.9	16	0.1	12448	9
28-OCT-90	15567	95.6	94	0.6	14514	89.0	16	0.1	12498	50
29-OCT-90	15661	96.2	94	0.6	14547	89.2	33	0.2	12548	51
30-OCT-90	15755	96.8	94	0.6	14612	89.6	65	0.4	12598	50
31-OCT-90	15849	97.4	94	0.6	14759	90.5	147	0.9	12682	84
1-NOV-90	15944	97.9	94	0.6	14857	91.1	98	0.6	12770	89
2-NOV-90	16038	98.5	94	0.6	14927	91.7	98	0.6	12872	102
3-NOV-90	16154	99.2	116	0.7	15362	94.2	506	3.1	12916	81
4-NOV-90	16251	99.8	97	0.6	15966	97.9	603	3.7	13015	99
5-NOV-90	16278	100.0	27	0.2	16031	98.3	65	0.4	13069	55
6-NOV-90	16278	100.0	-	-	16063	98.5	33	0.2	13150	40
7-NOV-90	16278	100.0	-	-	16161	99.1	98	0.6	13183	33
8-NOV-90	16278	100.0	-	-	16308	100.0	147	0.9	13210	27

LEGEND : * PLANNED PROGRESS

Encl. 2.5.2.5

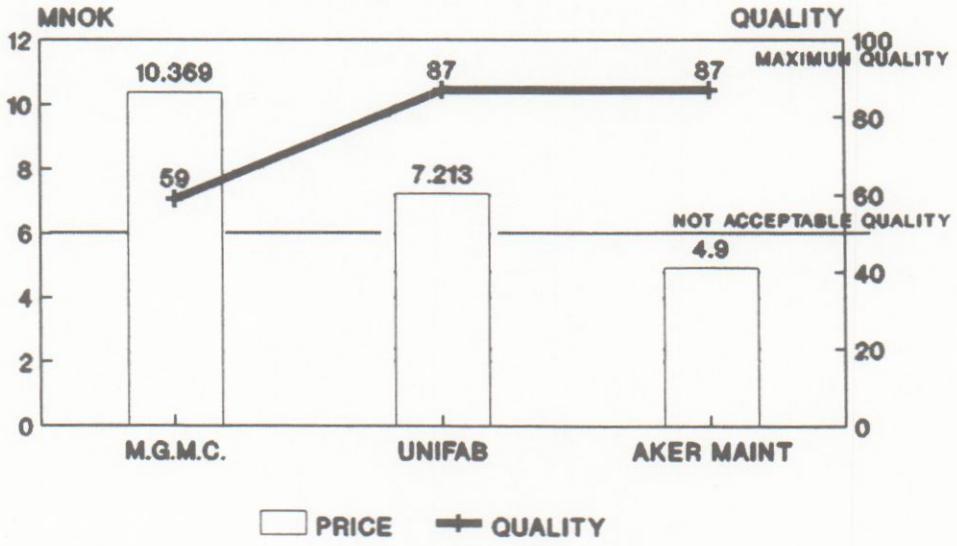
	M.G.M.C.		UNIFAB		AKER MAINT.	
	KNOK	HOURS	KNOK	HOURS	KNOK	HOURS
LUMP SUM	2,503	6.489	1,623	5.490	1,566	5.812
EST.REIMB.	8,136	21.889	5,811	11.805	2,886	11.037
TOTAL	10,639	28.378	7,433	17.295	4,452	16.849
AFTER ADJUSTMENT:			7,213		4,900	

CDP1 DECOMMISSIONING-OFFSHORE WORKS
TENDER EVALUATION
CONTRACT 90.066



TENDERS AS RECIEVED

CDP1 DECOMMISSIONING-OFFSHORE WORKS
TENDER EVALUATION
CONTRACT 90.066



ADJUSTMENT AFTER CLARIFICATION MEETING

TASK SHEET C D P 1 D E C O M M I S S I O N I N G REGISTER DATE: 21-Nov-90 PAGE 1 OF 6

TASK NO.	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAM	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45	EST HRS TO COMPL.	RESP	R/L	PROD. est/exp
10 M001	1	PIPELINES/RISERS	PIGGING OF SEALINE 26"-P-1012 TP1/CDP1	200	0		100	0	PD	R	0.0
10 M002	1	PIPELINES/RISERS	PIGGING OF SEALINE 26"-P-1017 TP1/CDP1	200	0		100	0	PD	R	0.0
10 M003	1	PIPELINES/RISERS	BLINDING OF SEALINE 26"-P-1012 CDP1	180	34	92	100	0	AMS	L	0.4
10 M004	1	PIPELINES/RISERS	BLINDING OF SEALINE 26"-P-1017 CDP1	180	34	67	100	0	AMS	L	0.5
10 M005	1	PIPELINES/RISERS	LEAK TESTING OF N2 FILLED SEALINE 1012	60	23	21	100	0	AMS	L	1.1
10 M006	1	PIPELINES/RISERS	LEAK TESTING OF N2 FILLED SEALINE 1017	60	23	22	100	0	AMS	L	1.1
10 P007	1	PIPELINES/RISERS	CORROSION PROTECTION /ANODES CC	300	50	8	100	0	AMS	R	6.3
			PIPELINE/RISERS SUM:	1,180	164	210	100	0			0.8
20 M001	1	DRILLING EQUIPMENT	REMOVE 4 WINCHES ON DRILL FLOOR	50	44	57	100	0	AMS	L	0.8
20 M002	1	DRILLING EQUIPMENT	REMOVE PART OF DIESEL ENGINES	800	205	97	100	0	AMS	L	2.1
20 S003	1	DRILLING EQUIPMENT	REMOVE DERRICK & SUBSTRUCTURES	2,000	1300	1112	100	0	AMS	L	1.2
20 M004	1	DRILLING EQUIPMENT	REMOVE DRILLING EQUIPT INSIDE DERRICK	700	0	0	100	0	DCD	L	0.0
20 M005	1	DRILLING EQUIPMENT	DRAINING OF HYDRAULIC SYSTEM DERRICK	60	0	0	100	0	DCD	R	0.0
20 M006	1	DRILLING EQUIPMENT	REMOVAL OF INDUSTRIAL PUMPS (SUBSTRUCTURE)	30	0	0	100	0	DCD	L	0.0
20 M007	1	DRILLING EQUIPMENT	SEE VARIATION ORDER NO.1						AMS		
			DRILLING EQUIPMENT SUM:	3,640	1,549	1,266	100	0			1.2
25 M001	1	PRODUCTION FACILITIES	STEAM CLEAN VENT SYSTEM CDP1	350	150	97	100	0	AMS	R	1.5
25 P002	1	PRODUCTION FACILITIES	BLINDING OF MAIN GAS TCP2	90	30	87.5	100	0	AMS	L	0.3
25 P003	1	PRODUCTION FACILITIES	BLINDING OF VENT SYSTEM DOWN STREAM M1-TP1	60	3	4	100	0	AMS	L	0.8
25 P004	1	PRODUCTION FACILITIES	BLINDING OF VENT SYSTEM DOWN STREAM M2-TP1	60	3	3	100	0	AMS	L	1.2
25 M005	1	PRODUCTION FACILITIES	STEAMING OF MAIN GAS CDP1	350	0	0	100	0	PD	R	0.0
25 M006	1	PRODUCTION FACILITIES	REMOVE DISC. INSIDE CHECK VALVE 26"-P-101 TP1	70	31	63	100	0	AMS	L	0.5
25 M007	1	PRODUCTION FACILITIES	REMOVE DISC. INSIDE CHECK VALVE 26"-P-105 TP1	70	0	0	100	0	PD	L	0.0
25 P008	1	PRODUCTION FACILITIES	BLINDING OF VENT SYSTEM TO LIVE SYST. TP1	30	8	8	100	0	AMS	L	1.0
25 M009	1	PRODUCTION FACILITIES	STEAMING OF VENT SYSTEM TP1	40	25	58	100	0	AMS	R	0.4

Encl. 3.2.3

TASK NO.	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAN	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45		RESP	R/L	
25 M010	1	PRODUCTION FACILITIES	STEAMING OF MAIN GAS TP1	100	60	57.5	100	0	AMS	R	1.0
25 M011	1	PRODUCTION FACILITIES	STEAMING OF MAIN GAS TP1/TCP2	100	110	152.5	100	0	AMS	R	0.7
25 P012	1	PRODUCTION FACILITIES	REMOVAL OF INLINE ITEMS ON VENT SYST CDP1	30	84	7	100	0	AMS	L	12.0
25 M013	1	PRODUCTION FACILITIES	STEAMING OF SAND SCRUBBERS/FILTERS CDP1	100	-	-	100	0	PD	R	0.0
25 M014	1	PRODUCTION FACILITIES	REMOVE 10 X 8" BALL VALVE	200	-	-	100	0	PD	L	0.0
25 M015	1	PRODUCTION FACILITIES	REMOVE 24 FILTER UNIT	200	-	-	100	0	PD	L	0.0
25 M016	1	PRODUCTION FACILITIES	CLEANING OF JET FUEL SYSTEM	50	50	31.5	100	0	AMS	R	1.6
			PRODUCTION FACILITIES SUM:	1,900	555	538	100	(0)			1.0
35 S001	1	SECONDARY STRUCTURE	LOCKING OF ENTRANCE TO MODULES	260	116	76	100	0	AMS	L	1.5
35 S002	1	SECONDARY STRUCTURE	LOCKING OF ENTRANCE TO BREAKWATER	150	42	12	100	0	AMS	L	3.5
35 M004	1	SECONDARY STRUCTURE	NEW LQ EVACUATION 2ND FLOOR GYM/HOSPITAL	80	22	33	100	0	AMS	L	0.7
35 M005	1	SECONDARY STRUCTURE	NEW LQ EVAC 3RD FLOOR	60	22	27	100	0	AMS	L	0.8
35 M006	1	SECONDARY STRUCTURE	PM4 1RST FLOOR EVACUATION	80	17	22	100	0	AMS	L	0.8
35 M007	1	SECONDARY STRUCTURE	PM4 2ND FLOOR EVACUATION	60	13	16	100	0	AMS	L	0.8
35 I008	1	SECONDARY STRUCTURE	REMOVE TELEPHONE SYSTEM	60	53	6	100	0	AMS	L	8.8
35 I009	1	SECONDARY STRUCTURE	REMOVE DATA LINK MODEMS	30	13	6	100	0	AMS	L	2.2
35 I010	1	SECONDARY STRUCTURE	REMOVE STENTOPHONE SYSTEM	30	32	4	100	0	AMS	L	8.0
35 I011	1	SECONDARY STRUCTURE	REMOVE SX100 EXCHANGE	60	44	6	100	0	AMS	L	7.3
35 I012	1	SECONDARY STRUCTURE	DISMANTLE TT40 TELECOM EQUIPT	60	44	8	100	0	AMS	L	5.5
35 I013	1	SECONDARY STRUCTURE	REMOVE EQUIPT FROM RADIO ROOM	160	66	22	100	0	AMS	L	3.0
35 I014	1	SECONDARY STRUCTURE	REMOVE RADIOS/WALKIE TALKIES	40	14	7	100	0	AMS	L	2.0
35 I015	1	SECONDARY STRUCTURE	NEW RIG MODULE EVAC.1 F.R COF. SHOP/OFF.	50	18	12	100	0	AMS	L	1.5
35 M016	1	SECONDARY STRUCTURE	SAIPEM LQ EVACUATION 3RD FLR CABINS	40	22	17	100	0	AMS	L	1.3
35 M017	1	SECONDARY STRUCTURE	SAIPEM LQ EVACUATION 2ND FLR CABINS	60	28	16	100	0	AMS	L	1.8
35 M018	1	SECONDARY STRUCTURE	SAIPEM LQ5 EVACUATION 1RST FLR CABINS	60	16	12	100	0	AMS	L	1.3
35 M019	1	SECONDARY STRUCTURE	REMOVE FIRE FIGHTING EQUIPT HELIDECK	40	165	17	100	0	AMS	R	9.7
35 M020	1	SECONDARY STRUCTURE	GENERAL CLEANING	1,000	1250	1222	100	0	AMS	R	1.0
35 M021	1	SECONDARY STRUCTURE	PAINTING/MARKING/LABELING ESCAPEWAY	250	85	227.5	100	0	AMS	R	0.4
35 S022	1	SECONDARY STRUCTURE	INSTALL NEW "WALKWAY" BRIDGE	250	200	554	100	0	AMS	R	0.4

TASK NO.	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAN	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45		RESP	R/L	
25 M010	1	PRODUCTION FACILITIES	STEAMING OF MAIN GAS TP1	100	60	57.5	100	0	AMS	R	1.0
25 M011	1	PRODUCTION FACILITIES	STEAMING OF MAIN GAS TP1/TCP2	100	110	152.5	100	0	AMS	R	0.7
25 P012	1	PRODUCTION FACILITIES	REMOVAL OF INLINE ITEMS ON VENT SYST CDP1	30	84	7	100	0	AMS	L	12.0
25 M013	1	PRODUCTION FACILITIES	STEAMING OF SAND SCRUBBERS/FILTERS CDP1	100	-	-	100	0	PD	R	0.0
25 M014	1	PRODUCTION FACILITIES	REMOVE 10 X 8" BALL VALVE	200	-	-	100	0	PD	L	0.0
25 M015	1	PRODUCTION FACILITIES	REMOVE 24 FILTER UNIT	200	-	-	100	0	PD	L	0.0
25 M016	1	PRODUCTION FACILITIES	CLEANING OF JET FUEL SYSTEM	50	50	31.5	100	0	AMS	R	1.6
			PRODUCTION FACILITIES SUM:	1,900	555	538	100	(0)			1.0
35 S001	1	SECONDARY STRUCTURE	LOCKING OF ENTRANCE TO MODULES	260	116	76	100	0	AMS	L	1.5
35 S002	1	SECONDARY STRUCTURE	LOCKING OF ENTRANCE TO BREAKWATER	150	42	12	100	0	AMS	L	3.5
35 M004	1	SECONDARY STRUCTURE	NEW LQ EVACUATION 2ND FLOOR GYM/HOSPITAL	80	22	33	100	0	AMS	L	0.7
35 M005	1	SECONDARY STRUCTURE	NEW LQ EVAC 3RD FLOOR	60	22	27	100	0	AMS	L	0.8
35 M006	1	SECONDARY STRUCTURE	PM4 1RST FLOOR EVACUATION	80	17	22	100	0	AMS	L	0.8
35 M007	1	SECONDARY STRUCTURE	PM4 2ND FLOOR EVACUATION	60	13	16	100	0	AMS	L	0.8
35 I008	1	SECONDARY STRUCTURE	REMOVE TELEPHONE SYSTEM	60	53	6	100	0	AMS	L	8.8
35 I009	1	SECONDARY STRUCTURE	REMOVE DATA LINK MODEMS	30	13	6	100	0	AMS	L	2.2
35 I010	1	SECONDARY STRUCTURE	REMOVE STENTOPHONE SYSTEM	30	32	4	100	0	AMS	L	8.0
35 I011	1	SECONDARY STRUCTURE	REMOVE SX100 EXCHANGE	60	44	6	100	0	AMS	L	7.3
35 I012	1	SECONDARY STRUCTURE	DISMANTLE TT40 TELECOM EQUIPT	60	44	8	100	0	AMS	L	5.5
35 I013	1	SECONDARY STRUCTURE	REMOVE EQUIPT FROM RADIO ROOM	160	66	22	100	0	AMS	L	3.0
35 I014	1	SECONDARY STRUCTURE	REMOVE RADIOS/WALKIE TALKIES	40	14	7	100	0	AMS	L	2.0
35 I015	1	SECONDARY STRUCTURE	NEW RIG MODULE EVAC.1 FLR COF. SHOP/OFF.	50	18	12	100	0	AMS	L	1.5
35 M016	1	SECONDARY STRUCTURE	SAIPEM LQ EVACUATION 3RD FLR CABINS	40	22	17	100	0	AMS	L	1.3
35 M017	1	SECONDARY STRUCTURE	SAIPEM LQ EVACUATION 2ND FLR CABINS	60	28	16	100	0	AMS	L	1.8
35 M018	1	SECONDARY STRUCTURE	SAIPEM LQ5 EVACUATION 1RST FLR CABINS	60	16	12	100	0	AMS	L	1.3
35 M019	1	SECONDARY STRUCTURE	REMOVE FIRE FIGHTING EQUIPT HELIDECK	40	165	17	100	0	AMS	R	9.7
35 M020	1	SECONDARY STRUCTURE	GENERAL CLEANING	1,000	1250	1222	100	0	AMS	R	1.0
35 M021	1	SECONDARY STRUCTURE	PAINTING/MARKING/LABELING ESCAPEWAY	250	85	227.5	100	0	AMS	R	0.4
35 S022	1	SECONDARY STRUCTURE	INSTALL NEW "WALKWAY" BRIDGE	250	200	554	100	0	AMS	R	0.4

TASK NO.	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAN	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45		RESP	R/L	
35 S025	1	SECONDARY STRUCTURE	REMOVE WINDWALLS/INSTALL NEW HANDRAILS	230	210	94	100	0	AMS	L	2.2
35 M026	1	SECONDARY STRUCTURE	REMOVE CORRODED PIPES & CABLETRAYS	600	950	946	100	0	AMS	R	1.0
35 S027	1	SECONDARY STRUCTURE	REMOVE FLARE BOOMS	400	156	102	100	0	AMS	L	1.5
35 M028	1	SECONDARY STRUCTURE	INSTALL "NEW" WIND INDICATOR	40	26	13.5	100	0	AMS	R	1.9
35 S029	1	SECONDARY STRUCTURE	CLOSE-OFF ESCAPE LADDER	50	15	10	100	0	AMS	L	1.5
35 S037	1	SECONDARY STRUCTURE	REMOVE CONDUCTOR GUIDE FRAME	400	55	2128.5	100	0	AMS	R	0.0
35 I038	1	SECONDARY STRUCTURE	REMOVE TERMINALS & PRINTERS FOR MIS	20	6	6	100	0	AMS	L	1.0
35 I040	1	SECONDARY STRUCTURE	DISCONNECT FIRE DETECTION EQUIPT	150	136	24	100	0	AMS	R	5.7
35 I041	1	SECONDARY STRUCTURE	DISONNECT PRODUCTION EQUIPMENT	340	165	11	100	0	AMS	R	15.0
35 I042	1	SECONDARY STRUCTURE	DISCONNECT CONTROL ROOM EQUIPT	30	0	-	100	0	PD	R	0.0
35 I043	1	SECONDARY STRUCTURE	DISCONNECT MTI SYSTEM	80	60	59.5	100	0	AMS	R	1.0
35 I044	1	SECONDARY STRUCTURE	DISCONNECT GAS DETECTION SYSTEM	160	154	102	100	0	AMS	R	1.5
35 I045	1	SECONDARY STRUCTURE	REMOVE ENTERTAINMENT EQUIPT	30	26	11.5	100	0	AMS	L	2.3
35 M046	1	SECONDARY STRUCTURE	REMOVE OIL STORAGE TANK	40	40	10	100	0	AMS	L	4.0
35 I047	1	SECONDARY STRUCTURE	EQUIPT FOR EDUCATION TO BE DISMANTLED	60	22	11	100	0	AMS	L	2.0
			TOTAL SECONDARY STRUCTURE	5,510	4,303	5,852	100	0			0.7
40 M0001	1	UTILITIES	REMOVE FIREWATER PUMP G101A W/RISER	400	220	114	100.00	(0.00)	AMS	L	1.9
40 M0002	1	UTILITIES	REMOVE FIREWATER PUMP G101B W/RISER	400	220	68.5	100.00	(0.00)	AMS	L	3.2
40 M0003	1	UTILITIES	DISCONNECT AIR BOTTLES (MANRIDING WINCH)	60	22	24	100.00	0.00	AMS	L	0.9
40 M0004	1	UTILITIES	REMOVE SEAWATER PUMP GA 112 A/B/C	400	290	41	100.00	(0.00)	AMS	L	7.1
40 M0005	1	UTILITIES	REMOVE MK60 CRANE	3,500	1250	1773.5	100.00	(0.00)	AMS	L	0.7
40 M0006	1	UTILITIES	REMOVE NATIONAL CRANE	4,000	1650	475	100.00	(0.00)	AMS	L	3.5
40 M0007	1	UTILITIES	REMOVE INGERSOLL RAND AIR COMPRESSOR	30	80	21.5	100.00	0.00	AMS	L	3.7
40 M0008	1	UTILITIES	PREPARE FOR STEAMING OF METH. SYSTEM	80	0	-	100.00	0.00	PD	L	0.0
40 M0009	1	UTILITIES	STEAMING OF METH. SYSTEM	70	0	-	100.00	0.00	PD	R	0.0
40 M0010	1	UTILITIES	REMOVAL OF CORROSION INHIBITOR SKID	40	0	-	100.00	0.00	PD	L	0.0

TASK NO.	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAN	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45		RESP	R/L	
40 MO011	1	UTILITIES	PREPARATION OF STEAMING OF HP MUD SYSTEM	80	166	61	100.00	0.00	AMS	L	2.7
40 MO012	1	UTILITIES	STEAMING OF HP MUD SYSTEM	80	30	43	100.00	0.00	AMS	R	0.7
40 MO013	1	UTILITIES	PREPARATION FOR STEAMING OF GAS,OIL SYSTEM	70	0	0	100.00	0.00	AMS	R	0.0
40 IO014	1	UTILITIES	REMOVE WELLHEAD HYDR. SYSTEM	1,200	760	338	100.00	0.00	AMS	L	2.2
40 MO015	1	UTILITIES	DRAINAGE OF POTABLE WATER	30	54	6	100.00	(0.00)	AMS	L	9.0
40 MO016	1	UTILITIES	PREP. FOR CLEANING OF LP-MUD SYSTEM	60	242	181	100.00	0.00	AMS	R	1.3
40 MO017	1	UTILITIES	FLUSHING OF LP-MUD SYSTEM	60	90	31	100.00	0.00	AMS	R	2.9
40 MO018	1	UTILITIES	DRAINING OF STEAM SYSTEM	30	88	57.5	100.00	0.00	AMS	R	1.5
40 MO019	1	UTILITIES	VENT & DRAIN COMPR. AIR SYSTEM	30	55	40	100.00	0.00	AMS	R	1.4
40 MO020	1	UTILITIES	DRAINING OF SEAWATER SYSTEM	60	66	36	100.00	0.00	AMS	R	1.8
40 MO021	1	UTILITIES	DRAINING OF FIRE WATER SYSTEM	60	90	42	100.00	0.00	AMS	R	2.1
40 MO022	1	UTILITIES	DRAINING OF CLOSED DRAIN/SLOP SYSTEM	30	55	8	100.00	0.00	AMS	R	6.9
40 MO023	1	UTILITIES	STEAMING OF LP MUD SYSTEM RETURN	60	30	35	100.00	0.00	AMS	R	0.9
40 MO024	1	UTILITIES	METH. WATER SYSTEM VENT TO AIR	30	0	-	100.00	0.00	EM	R	0.0
40 MO025	1	UTILITIES	DRAINING OF SEAWATER TANK FB112	20	13	9	100.00	0.00	AMS	R	1.4
40 MO026	1	UTILITIES	STEAMING OF GAS OIL SYSTEM	150	0	0	100.00	0.00	EM	R	0.0
40 MO027	1	UTILITIES	REMOVAL OF 2 DC GENERATORS	230	0	-	100.00	0.00	EM	L	0.0
40 MO028	1	UTILITIES	REMOVE 2 OF VIRAS COOLING PUMPS (PM4)	20	0	0	100.00	0.00	AMS	L	0.0
40 MO029	1	UTILITIES	REMOVE SOFTWATER PUMPS GA 105 A/B	40	18	14.5	100.00	(0.00)	AMS	L	1.2
40 MO030	1	UTILITIES	REMOVE SEAWATER PUMPS GA 108 A/B	50	18	14.5	100.00	(0.00)	AMS	L	1.2
40 MO031	1	UTILITIES	REMOVAL OF START AIR COMPRESSORS BA 1&2	70	27	11	100.00	(0.00)	AMS	L	2.5
40 MO032	1	UTILITIES	DISONNECT PARTS OF THE BC COMPRESSORS	90	82	49	100.00	0.00	AMS	L	1.7
40 MO033	1	UTILITIES	INSTALL NEW NAVIG. AIDS & OBSTR. LIGHTS	150	100	284	100.00	0.00	AMS	R	0.4
40 MO034	1	UTILITIES	REMOVE SEAWATER PUMPS GA 107A/B	40	18	14.5	100.00	(0.00)	AMS	L	1.2
40 MO035	1	UTILITIES	CRANE HANDLING	-	1155	710	100.00	(0.00)	AMS	L	1.6
40 MO036	1	UTILITIES	REMOVE UTILITY RISER (EXCEPT FW & SW)	300	155	96.5	100.00	0.00	AMS	L	1.6
40 SO037	1	UTILITIES	REMOVE DIVING MODULE	950	230	208	100.00	(0.00)	AMS	L	1.1
40 SO038	1	UTILITIES	DRAINING OF CONTR. VALVE ACTUATORS	-	6	6	100.00	0.00	EM	R	1.0
			TOTAL UTILITIES SUM:	12,970	7,280	4,807	100.00	(0.00)			1.5

TASK NO.	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAN	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45		RESP	R/L	
45 IO001	1	ELECTRICAL SYSTEM	PASSIVATION OF CDP1 CONTROL PANEL	70	0	93	100	0	EM	R	0.0
45 EO002	1	ELECTRICAL SYSTEM	DISCONNECT CABLES FOR AIR COMPRESSOR	20	8	0	100	0	AMS	L	0.0
45 IO003	1	ELECTRICAL SYSTEM	PASSIVATION OF TP1 CABINETS	80	0	73	100	0	EM	R	0.0
45 EO004	1	ELECTRICAL SYSTEM	DISCONNECT POWER SUPPLY CABLE	50	0	0	100	0	EM	R	0.0
45 EO005	1	ELECTRICAL SYSTEM	SHUT-OFF ALL CIRCUIT BREAKERS	30	27	3	100	0	AMS	L	9.0
45 EO006	1	ELECTRICAL SYSTEM	DISCONNECT PUMPS GA 112 A/B/C SEAWATER	40	10	7	100	0	AMS	L	1.4
45 EO007	1	ELECTRICAL SYSTEM	DISCONNECT PUMPS GA 101 A/B FIREWATER	20	8	57	100	0	AMS	L	0.1
45 EO008	1	ELECTRICAL SYSTEM	REMOVAL OF CABLE FOR DIVING PLATORM	10	13	8.5	100	0	AMS	L	1.5
45 EO009	1	ELECTRICAL SYSTEM	DISCONNECT ALL CABLES FOR DERRICK	60	58	37	100	0	AMS	L	1.6
45 EO010	1	ELECTRICAL SYSTEM	DISCONNECT CABLE FOR MK60 CRANE	90	80	13.5	100	0	AMS	L	5.9
45 EO011	1	ELECTRICAL SYSTEM	DISCONNECT ALL HALON BOTTLES	30	16	3	100	0	AMS	R	5.3
45 EO012	1	ELECTRICAL SYSTEM	REMOVAL OF ALL CABLES FOR DIVING MODULE	90	25	5	100	0	AMS	R	5.0
45 EO013	1	ELECTRICAL SYSTEM	DISCONNECT CABLES ON MASONELEIEN PUMPS	10	0	-	100	0	EM	L	0.0
45 EO014	1	ELECTRICAL SYSTEM	REMOVE & SEND ONSHORE ALL ACCUMULATOR CELLS	350	148	114	100	0	AMS	L	1.3
45 EO015	1	ELECTRICAL SYSTEM	DISCONNECT CABLE FOR NATIONAL CRANE	20	0			0	OTHER	L	0.0
45 EO016	1	ELECTRICAL SYSTEM	DISCONNECT 2 OF DC GENERATORS	30	0	-	100	0	DCD	L	0.0
45 EO017	1	ELECTRICAL SYSTEM	REMOVAL OF DC CONVERTER SET	-	300	75	100	0	AMS	R	4.0
45 EO018	1	ELECTRICAL SYSTEM	CDP1 F&G/UTILITY AND MIMIC						EM		0.0
45 EO019	1	ELECTRICAL SYSTEM	TCP2 INTERFACE CABINET						EM		0.0
45 EO020	1	ELECTRICAL SYSTEM	PASSIVATION OF TP1 CABINET			100	100		EM		0.0
			ELECTRICAL SYSTEM SUM:	1,000	693	589	100.00	0			1.2
50 MO001	1	SAFETY EQUIPMENT	REMOVE FIVE (5) LIFEBOATS	200	66	21	100	0	AMS	L	3.1
50 MO002	1	SAFETY EQUIPMENT	REMOVE ALL FIRE FIGHTING EQUIPT	80	196	90.5	100	0	AMS	L	2.2
50 MO003	1	SAFETY EQUIPMENT	REMOVE LIFESAVING EQUIPT	60	78	29	100	0	AMS	L	2.7
50 MO004	1	SAFETY EQUIPMENT	DISCONNECT ALL HALON BOTTLES	120	66	35.5	100	0	AMS	R	1.9
50 MO005	1	SAFETY EQUIPMENT	NEW FIRE FIGHTING EQUIPT HELIDECK	60	105	9	100	0	AMS	L	11.7
			SAFETY EQUIPMENT SUM:	520	511	185	100.00	0			2.8
55 GO001	1	SCAFFOLDING	SCAFFOLDING	5,000	1662	1662	100	0	EM	R	1.0

TASK SHEET REGISTER CDP1 DECOMMISSIONING DATE: 21-Nov-90 PAGE 6 OF 6

VARIATION ORDER NO	REV.	SYSTEM	DESCRIPTION	ESTIMATED MANHOURS EAN	ESTIMATED MANHOURS AKER	EXPENDED MANHOURS	% PROGRESS WEEK: 45		RESP	R/L	
V.O.1	1	DRILLING EQUIPMENT	REMOVAL REM. EQUIPT. IN DERRICK SUBSTR.	130	130	209	100	0	AMS	R	0.6
V.O.2	1	SECONDARY STRUCTURE	PREFAB/INST TANK SUPPT (35SF34, 35SO35)	450	90	90	100	0	AMS	L	1.0
V.O.3	1	SECONDARY STRUCTURE	PREFAB. NEW ACCESS BRIDGE (35SF23)	520	1200	1170	100	0	AMS	L	1.0
V.O.4		SECONDARY STRUCTURE	PREP.FOR XTRA CUT BURNER BOOM		32	17	100	0	AMS	L	1.9
V.O.5		PIPELINES/RISERS	REST SUPPORT ON 26" SEALINE		44	51	100	0	AMS	R	0.9
V.O.6		PRODUCTION FACILITIES	REMOVAL OF STUDBOLTS		32	33	100	0	AMS	L	1.0
V.O.7		SECONDARY STRUCTURE	NEW IDENTIFICATION PANELS (35IO48)		380	247	100	0	AMS	L	1.5
V.O.8		PIPELINES/RISERS	INSTALL BOLTS 26" LINE TP1 & CDP1		40	6	100	0	AMS	R	6.7
V.O.9		PIPELINES/RISERS	REMOVAL OF FLOW TEES CDP1		62	82	100	0	AMS	L	0.8
V.O.10		SECONDARY STRUCTURE	V.O. CANCELLED		N/A	N/A	N/A		AMS	-	0.0
V.O.11		SECONDARY STRUCTURE	EXTENDED SCOPE ON 35SO37		2000	1976	100	0	AMS	-	1.0
V.O.12		ELECTRICAL SYSTEM	TEMPORARY POWER SUPPLY		340	333.5	100	0	AMS	R	1.0
V.O.13			ACCESS WELD TANK SUPPT (HRS. IN VO15)		10	10	100	0	AMS	R	1.0
V.O.14		SECONDARY STRUCTURE	REMOVAL OF SUSPENSION BEAMS MAIN DECK		60	28	100	0	AMS	R	2.1
V.O.15		SECONDARY STRUCTURE	EXTRA STIFFENING PLATES/TANK SUPPORTS		105	75	100	0	AMS	R	1.4
V.O.16			MARINE COORDINATOR		650	344	100	0	AMS	R	1.9
V.O.17			REMOVE ELEC./AIR COND		20	20	100	0	AMS	R	1.0
V.O.18			COST DIFF. MECHANIC		840	344	100	0	AMS	R	2.4
V.O.19			PREFAB./INSTALL SURVEY POINT		72	9	100	0	AMS	L	8.0
V.O.20			FLOODING OF CENTRAL CORE		32.5	8	100	0	AMS	R	4.1
V.O.21			INSTR. INTERCONNECTION LINE		100	118	100	0	AMS	R	0.8
TOTAL VARIATION ORDERS				0	6239.5	5170.5	100.00	0			1.2
PIPELINES/RISERS				1,180	164	210	100	0			0.8
DRILLING EQUIPT.				3,640	1,549	1,266	100	0			1.2
PRODUCTION FAC.				1,900	555	538	100	(0)			1.0
SECONDARY STRUCT				5,510	4,303	5,852	100	0			0.7
UTILITIES				12,970	7,280	4,807	100	(0)			1.5
ELECTRICAL SYST				1,000	693	589	100	0			1.2
SAFETY SYSTEM				520	511	185	100	0			2.8
SCAFFOLDING				5,000	1,662	1,662	100	0			1.0
VARIATION ORDERS				0	6,240	5,171	100	0			1.2
STANDBY/SHUTTLING				0	1,630	1,521	100	0			1.1
TOTAL ALL SYSTEMS:				31,720	24,586	21,800	100	(0)			1.1

Encl. 3.3.1.1

CDP1 DECOMMISSIONING
WEEKLY PROGRESS REPORT

21-Sep-90

W E E K N O :.....38..... DATE: .....

ATTN OFFSHORE: CSI
ATTN ONSHORE: KR
CC: BH/MCS

BY: .....

TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
10 M001	1	PIG SEALINE 26"-P-1012 TP1/CDP1	100		?	-	PD	PROGRESS PER W 30
10 M002	1	PIG SEALINE 26"-P-1017 TP1/CDP1	100		?	-	PD	PROGRESS PER W 30
10 P003	1	BLINDING OF SEALINE 26"-P-1012 CDP1	100		118	L	AMS	PROGRESS PER W33 *
10 P004	1	BLINDING OF SEALINE 26"-P-1017 CDP1	100		118	L	AMS	PROGRESS PER W33 *
10 M005	1	LEAK TEST OF N2 FILLED SEALINE 1012				L	AMS	
0 M006	1	LEAK TEST OF N2 FILLED SEALINE 1017				L	AMS	
10 P007	1	CHECKING OF ANODES CENTRAL CORE	100		8	R	AMS	PROGRESS PER W30
20 M001	1	REMOVE 4 WINCHES ON DRILL FLOOR	100		57	L	AMS	PROGRESS PER W29
20 M002	1	PEMOVE PART OF DIESEL ENGINES	100		97	L	AMS	PROGRESS PER W37
20 S003	1	REMOVE DERRICK & SUBSTRUCTURES	100		1112	-	AMS	PROGRESS PER W32
20 M004	1	REM. DRILLING EQUIPT INSIDE DERRICK	100			-	DCD	
20 M005	1	DRAINING OF HYDRAULIC SYS. DERRICK	100			-	DCD	
20 M006	1	REM.INDUSTRIAL PUMPS (SUBSTRUCTURE)	100			-	DCD	
20 M007		EQUIP IN DERRICK REMOVAL						SEE VARIATION ORDER NO. 1

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

* This have incl. V.O. req. hours who is for task 10M0003 - 26 hrs., 10M0004 - 51 hrs. This hours on V.O. is only removal of flow tee's to get access for new blinds.

AMS= AKER MAINTENANCE STAV.
EM = EAN MAINTENANCE DEPT
PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

W E E K N O :.....38..... DATE: .....

BY: .....

25 MO01	1	STEAM CLEAN VENT SYSTEM CDP1	100		97	R	AMS		
25 PO02	2	BLINDING OF MAIN GAS TCP2	100		87.5	L	AMS	PROGRESS PER W30	
25 PO03	2	BLIND VENT SYS DOWN TO STRM M1-TP1	15		3	L	AMS	PROGRESS PER W31	
25 PO04	2	BLIND VENT SYS DOWN TO STRM M2-TP1	15		3	L	AMS	PROGRESS PER W31	
25 MO05	1	STEAMING OF MAIN GAS CDP1	100		?		PD		
25 MO06	1	REM.DISC.IN CHCK VLVE 26"-P-101 TP1	100		63	L	AMS	PROGRESS PER W33, SEE VO NO 06	
25 MO07	1	REM.DISC.IN CHCK VLVE 26"-P-105 TP1	100		N/A	L	AMS	COMMISSIONING TP1 DECOMM.	
25 PO08	2	BLIND VENT SYS.TO LIVE SYS. TP1	100		8	L	AMS	PROGRESS PER W30	
25 MO09	1	STEAMING OF VENT SYSTEM TP1	100		58	R	AMS	PROGRESS PER W30	
25 MO10	1	STEAMING OF MAIN GAS TP1	100		57.5	R	AMS	PROGRESS PER W30	
25 MO11	1	STEAMING OF MAIN GAS TP1/TCP2	100		152.5	R	AMS	COMPLETED 27.07.90	
25 PO12	1	REMOVE INLINE ITEMS-VENT SYST CDP1	100		7	L	AMS		
25 MO13	1	STEAM SAND SCRUBBERS/FILTERS CDP1	100		?	-	PD		
25 MO14	1	REMOVE 10 X 8" BALL VALVE	100		?	-	PD		
25 MO15	1	REMOVE 24 FILTER UNIT	100		?	-	PD		
* 25 MO16	1	CLEANING OF JET FUEL SYSTEM	100		31.5	R	AMS	PROGRESS PER W32	

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

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PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

W E E K N O :.....38..... DATE: .....

BY: .....

	TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
	35 S001	1	LOCKING OF ENTRANCE TO MODULES	100		76	L	AMS	PROGRESS PER W37
	35 S002	1	LOCKING OF ENTRANCE TO BREAKWATER				L	AMS	
*	35 SF03	1	FABRICATION OF SKID FRAME MK60				-	AMS	
	35 M004	1	NEW LQ EVAC. 2ND FLR GYM/HOSPITAL	90		33	L	AMS	PROGRESS PER W36
	35 M005	1	NEW LQ EVACUATION 3RD FLOOR	100	2	27	L	AMS	PROGRESS PER W38
	5 M006	1	PM4 1RST FLOOR EVACUATION	100	0	22	L	AMS	PROGRESS PER W38
	35 M007	1	PM4 2ND FLOOR EVACUATION	100		16	L	AMS	PROGRESS PER W35
	35 I008	1	REMOVE TELEPHONE SYSTEM	100	0	6	L	AMS	PROGRESS PER W38
	35 I009	1	REMOVE DATA LINK MODEMS	100		6	L	AMS	PROGRESS PER W37
	35 I010	1	REMOVE STENTOPHONE SYSTEM	100	0	4	L	AMS	PROGRESS PER W38
	35 I011	1	REMOVE SX100 EXCHANGE				L	AMS	
	35 I012	1	DISMANTEL/REMOVE TT40 TELEM. EQUIPT	100		8	L	AMS	PROGRESS PER W37
	35 I013	1	REMOVE EQUIPT FROM RADIO ROOM	95		22	L	AMS	PROGRESS PER W37
	35 I014	1	REMOVE RADIOS/WALKIE TALKIES				L	AMS	
	35 I015	1	NEW RIG MOD EVAC 1ST FLR COFFEE/OFF				L	AMS	
	35 M016	1	SAIPEM LQ EVACUATION 3RD FLR CABINS				L	AMS	
	35 M017	1	SAIPEM LQ EVACUATION 2ND FLR CABINS	100	16	16	L	AMS	PROGRESS PER W38
	35 M018	1	SAIPEM LQ5 EVAC. 1RST FLR CABINS	100	12	12	L	AMS	PROGRESS PER W38
	35 M019	1	REMOVE FIREFIGHTING EQUIPT HELIDECK				R	AMS	
	35 M020	1	GENERAL CLEANING	32	240	346.5	R	AMS	PROGRESS PER W38

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

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PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

W E E K N O :.....38..... DATE: .....

BY: .....

TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
35 M021	1	PAINTING/MARKING/LABELING ESCAPEWAY				R	AMS	
35 S022	1	INSTALL NEW "WALKWAY" BRIDGE	100		554	R	AMS	PROGRESS PER W37
*35 SF24		FABR. OF SKID FRAME NAT. CRANE				L	AMS	
35 S025	1	REMOVE WINDWALLS/INSTALL HANDRAILS	100		94	L	AMS	PROGRESS PER W30
35 M026	1	REMOVE CORRODED PIPES & CABLE TRAYS	50	202.5	362.5	R	AMS	PROGRESS PER W38
5 S027	1	REMOVE FLARE BOOMS	100		102	L	AMS	PROGRESS PER W30
35 M028	1	INSTALL "NEW" WIND INDICATOR	100		13.5	R	AMS	PROGRESS PER W37
35 S029	1	CLOSE-OFF ESCAPE LADDER	100		10	L	AMS	PROGRESS PER W37
35 S037	1	REMOVE CONDUCTOR GUIDE FRAME	100		2128.5	R	AMS	PROGRESS PER W36, SEE VO
35 I038	1	REMOVE TERMINALS & PRINTERS FOR MIS	100		6	L	AMS	PROGRESS PER W36
35 I040	1	DISCONNECT FIRE DETECTION EQUIPT	100		24	R	AMS	PROGRESS PER W37
35 I041	1	DISCONNECT PRODUCTION EQUIPT	100		11	R	AMS	PROGRESS PER W29 - 80 % PD
35 I042	1	DISCONNECT CONTROL ROOM EQUIPT	100		?	R	PD	
35 I043	1	DISCONNECT MTI SYSTEM	70	36.5	36.5	R	AMS	PROGRESS PER W38
35 I044	1	DISCONNECT GAS DETECTION SYSTEM	100		102	R	AMS	PROGRESS PER W31
35 I045	1	REMOVE ENTERTAINMENT EQUIPT				L	AMS	
35 M046	1	REMOVE OIL STORAGE TANK	100	10	10	L	AMS	PROGRESS PER W38
35 I047	1	EUIPT FOR EDUCATION - DISMANTLED	100		11	L	AMS	PROGRESS PER W29

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

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CDP1 DECOMMISSIONING

WEEKLY PROGRESS REPORT

21-Sep-90

W E E K N O :.....38..... DATE: : .....

BY: .....

TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
40 MO001	1	REMOVE FIREWATER PUMP G101A W/RISER	100	114	114	L	AMS	PROGRESS PER W38
40 MO002	1	REMOVE FIREWATER PUMP G101B W/RISER	50	44.5	44.5	L	AMS	PROGRESS PER W38
40 MO003	1	DISCONN.AIR BOTTLES(MANRIDING WINCH	100		24	L	AMS	
40 MO004	1	REMOVE SEAWATER PUMP GA 112 A/B/C	30		15	L	AMS	PROGRESS PER W32
40 MO005	1	REMOVE MK60 CRANE				L	AMS	
0 MO006	1	REMOVE NATIONAL CRANE				L	AMS	
40 MO007	1	REMOVE INGERSOLL RAND AIR COMPR.	80	21.5	21.5	L	AMS	PROGRESS PER W38
40 MO008	1	PREP FOR STEAMING OF METH SYST	100		?	-	PD	
40 MO009	1	STEAMING OF METHANOL SYSTEM	100		?	-	PD	
40 MO010	1	REMOVE CORROSION INHIBITOR SKID	100		?	-	PD	
40 MO011	1	PREP. OF STEAMING OF HP MUD SYSTEM	100		61	L	AMS	WEEK 27
40 MO012	1	STEAMING OF HP MUD SYSTEM	100		43	R	AMS	WEEK 27
40 MO013	1	PREP.FOR STEAMING OF GAS,OIL SYSTEM	100		?	R	AMS	PROGRESS PER W29
40 MO014	1	REMOVE WELLHEAD HYDR. SYSTEM	100		338	L	AMS	PROGRESS PER W29
40 MO015	1	DRAINAGE OF POTABLE WATER				L	AMS	
40 MO016	1	PREP. FOR CLEANING OF LP-MUD SYSTEM	100		181	R	AMS	PROGRESS PER W29
40 MO017	1	FLUSHING OF LP-MUD SYSTEM	100		31	R	AMS	PROGRESS PER W29
40 MO018	1	DRAINING OF STEAM SYSTEM	100	19	57.5	R	AMS	PROGRESS PER W38
40 MO019	1	VENT & DRAIN COMPR. AIR SYSTEM	100	40	40	R	AMS	PROGRESS PER W38
40 MO020	1	DRAINING OF SEAWATER SYSTEM	100	36	36	R	AMS	PROGRESS PER W38

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

AMS= AKER MAINTENANCE STAV.
EM = EAN MAINTENANCE DEPT
PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

CDP1 DECOMMISSIONING
WEEKLY PROGRESS REPORT

21-Sep-90

W E E K N O :.....38..... DATE: : .....

BY: .....

TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
40 MO021	1	DRAINING OF FIRE WATER SYSTEM	100	42	42	R	AMS	PROGRESS PER W38
40 MO022	1	DRAIN CLOSED DRAIN/SLOP SYSTEM	100		8	R	AMS	PROGRESS PER W31
40 MO023	1	STEAMING OF LP-MUD SYSTEM RETURN	100		35	R	AMS	
40 MO024	1	METHANOL WATER SYS VENT TO AIR	100		?	-	EM	
40 MO025	1	DRAINING OF SEAWATER TANK FB112	100	9	9	R	AMS	PROGRESS PER W38
0 MO026	1	STEAMING OF GAS,OIL SYSTEM	10		?	R	AMS	10% by EM,STEAMING NOT REQUIRE
40 MO027	1	REMOVAL OF 2 DC GENERATORS	100		?	-	EM	
40 MO028	1	REMOVE 2 VIRAS COOLING PUMPS (PM4)	100	0	0	L	AMS	IN CONN. WITH TASK 40MO32
40 MO029	1	REMOVE SOFTWATER PUMPS GA 105 A/B	100	14.5	14.5	L	AMS	PROGRESS PER W38
40 MO030	1	REMOVE SEAWATER PUMPS GA 108 A/B	100	14.5	14.5	L	AMS	PROGRESS PER W38
40 MO031	1	REMOVE START AIR COMPRESSORS BA 1&2	25	4	4	L	AMS	PROGRESS PER W38
40 MO032	1	DISCONN.PARTS OF THE BC COMPRESSORS	100		49	L	AMS	PROGRESS PER W37
40 MO033	1	INSTALL NEW NAVIG.AIDS&OBSTR.LIGHTS				R	AMS	
40 MO034	1	REMOVE SEAWATER PUMPS GA 107A/B	100	14.5	14.5	L	AMS	PROGRESS PER W38
*40 MO035	1	CRANE HANDLING (AMS CRANE DRIVER)	33	66	271	R	AMS	PROGRESS PER W38
40 MO036	1	REMOVE UTILITY RISER (EXCEPT FW&SW)	40	37.5	37.5	L	AMS	PROGRESS PER W38
40 SO037	0	REMOVE DIVING MODULE	100		208	L	AMS	PROGRESS PER W37
*40 MO038	1	DRAINING OF CONTROL VALVE ACTUATORS	100		6	R	AMS	PROGRESS W32 *

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

* This task is done by others. Aker has only checked that all act. has been drained.

AMS= AKER MAINTENANCE STAV.
EM = EAN MAINTENANCE DEPT
PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

CDP1 DECOMMISSIONING
WEEKLY PROGRESS REPORT

21-Sep-90

W E E K N O :.....38..... DATE: : .....

BY: .....

TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
45 I0001	2	PASSIVATION OF CDP1 CONTROL PANEL	45		93	-	EM	STAGE I COMPLETED PROGRESS PER W35
45 E0002	1	DISONNECT CABLES FOR AIR COMPRESSOR	100	0	0	L	AMS	IN CONN W/TASK 40M0001
45 I0003	2	PASSIVATION OF TP1 CABINETS	90		73	-	EM	PROGRESS PER W34
45 E0004	1	DISCONNECT POWER SUPPLY CALBE				R	AMS	
45 E0005	1	SHUT-OFF ALL CIRCUIT BREAKERS				L	AMS	
45 E0006	1	DISCONN. PUMPS GA 112A/B/C SEAWATER				L	AMS	
45 E0007	1	DISCONN.PUMPS GA 101A/B/C FIREWATER	100	4	57	L	AMS	PROGRESS PER W38
45 E0008	1	REMOVE CABLE FOR DIVING PLATFORM	100		8,5	L	AMS	PROGRESS PER W35
45 E0009	1	DISCONNECT ALL CABLES FOR DERRICK	100		37	L	AMS	PER 05.07.90
45 E0010	1	DISCONNECT CABLE FOR MK60 CRANE				L	AMS	
45 E0011	1	DISCONNECT ALL HALON BOTTLES	100	3	3	R	AMS	PROGRESS PER W38
45 E0012	1	REMOVE ALL CABLES FOR DIVING MODULE	100		5,0	R	AMS	PROGRESS PER W35
45 E0013	1	DISC CABLES ON MASONELEIEN PUMPS	100		?	-	EM	
45 E0014	1	REM./SEND ONSHORE ALL ACCUMUL.CELLS	1	3	3	L	AMS	PROGRESS PER W38
5 E0015	1	DISCONNECT CABLE FOR NATIONAL CRANE				L	AMS	
45 E0016	1	DISCONNECT 2 OF DC GENERATORS	100		?	-	EM	
*45 E0017	1	REMOVAL OF DC CONVERTER SET	45	42.5	42.5	R	AMS	PROGRESS PER W38
*45 E0018	1	CDP1 F&G/UTILITY & MIMIC				-	EM	
*45 E0019	1	TCP2 INTERFACE CABINET				-	EM	
*45 E0020	1	PASSIVATION OF TP1 EQUIPT	85		100	-	EM	PROGRESS PER W34

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

AMS= AKER MAINTENANCE STAV.
EM = EAN MAINTENANCE DEPT
PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

CDP1 DECOMMISSIONING
WEEKLY PROGRESS REPORT

21-Sep-90

W E E K N O :.....38..... DATE: : .....

BY: .....

TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
50 MO001	1	REMOVE FIVE (5) LIFEBOATS				L	AMS	
50 MO002	1	REMOVE ALL FIREFIGHTING EQUIPT.	30	19	19	L	AMS	PROGRESS PER W38
50 MO003	1	REMOVE LIFESAVING EQUIPT.				L	AMS	
50 MO004	1	DISCONNECT ALL HALON BOTTLES	5		N/A	R	AMS	PROGRESS PER W36,WORK BY MAINT
50 MO005	1	NEW FIRE FIGHTING EQUIPT HELIDECK				L	AMS	
						-		
						-		
55 GO001	-	SCAFFOLDING HOURS	54		609	R	EM	PROGRESS PER W36
*ALL	-	S T A N D B Y H O U R S	N/A	291	649	R	AMS	PER W38

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

AMS= AKER MAINTENANCE STAV.
EM = EAN MAINTENANCE DEPT
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CDP1 DECOMMISSIONING
WEEKLY PROGRESS REPORT

21-Sep-90

W E E K N O :.....38..... DATE: .....

VARIATION ORDER REQUEST STATUS

BY: .....

	TASK NO.	REV	DESCRIPTION	% PROGRESS	EXP. HRS THIS WEEK	ACCUM. MANHOURS	R/L	RESP	COMMENTS
*	VO NO 01 20 MO 07		EQUIPM. IN DERRICK. REMOVAL	100		209	R	AMS	TASK COMPLETED 31.07.90
	VO NO 02 35 SO35		PREFAB/INST. TANK SUPPORTS	78		265	L	AMS	PROGRESS PER W36
*	VO NO 03		PREFAB. OF ACCESS BRIDGE	100		N/A	-		PREFAB. ONLY
*	VO NO 04		PREP. FOR EXTRA CUT BURNER BOOM	100		17	R	AMS	PROGRESS PER W30
	/O NO 05		PREFAB REST SUP. 26" SEALINE	100		51	R	AMS	PROGRESS PER W31
*	VO NO 06 25 MO 06		REMOVAL OF STUDBOLTS	100		33			PROGRESS PER W33
*	VO NO 07		NEW IDENTIFICATION PANELS						
*	VO NO 08		INST. BOLTS ON 26" BL.FL.	100		6			PROGRESS PER W36
*	VO NO 09		REMOVAL OF FLOWTEES/CDP1	100					PROGRESS PER W36
*	VO NO 10		CANCELLATION OF TASK 35I012	N/A	N/A	N/A			
	VO NO 11 35 SO 37		EXTENDED SCOPE ON 35SO37	NOT CONSIDERED AS A VARIATION ORDER, BUT A REIMBURSABLE TASK.					
	/O NO 12		TEMPORARY POWER SUPPLY	100	0	333.5			PROGRESS PER W38
*	VO NO 13		ACCESS FOR WELDING/TANK SUPPORTS	100		N/A			HOURS INCLUDED IN VO 15. PROGRESS PER W36
*	VO NO 14		REMOVAL OF SUSPENSION BEAMS/MAIN DECK	100	3	28			PROGRESS PER W38
*	VO NO 15		EXTRA STIFF. PLATES/TANKSUPPORTS	98		75			PROGRESS PER W36
*	VO NO 16		MARINE COORDINATOR	25	66	139			PROGRESS PER W38
*	VO NO 17		REMOVE EL. FIRE CABINET	50	12.5	12.5			PROGRESS PER W38

NB !!! C U T - O F F : T H U R S D A Y 19.00 HRS

* Tasks not included in Artemis

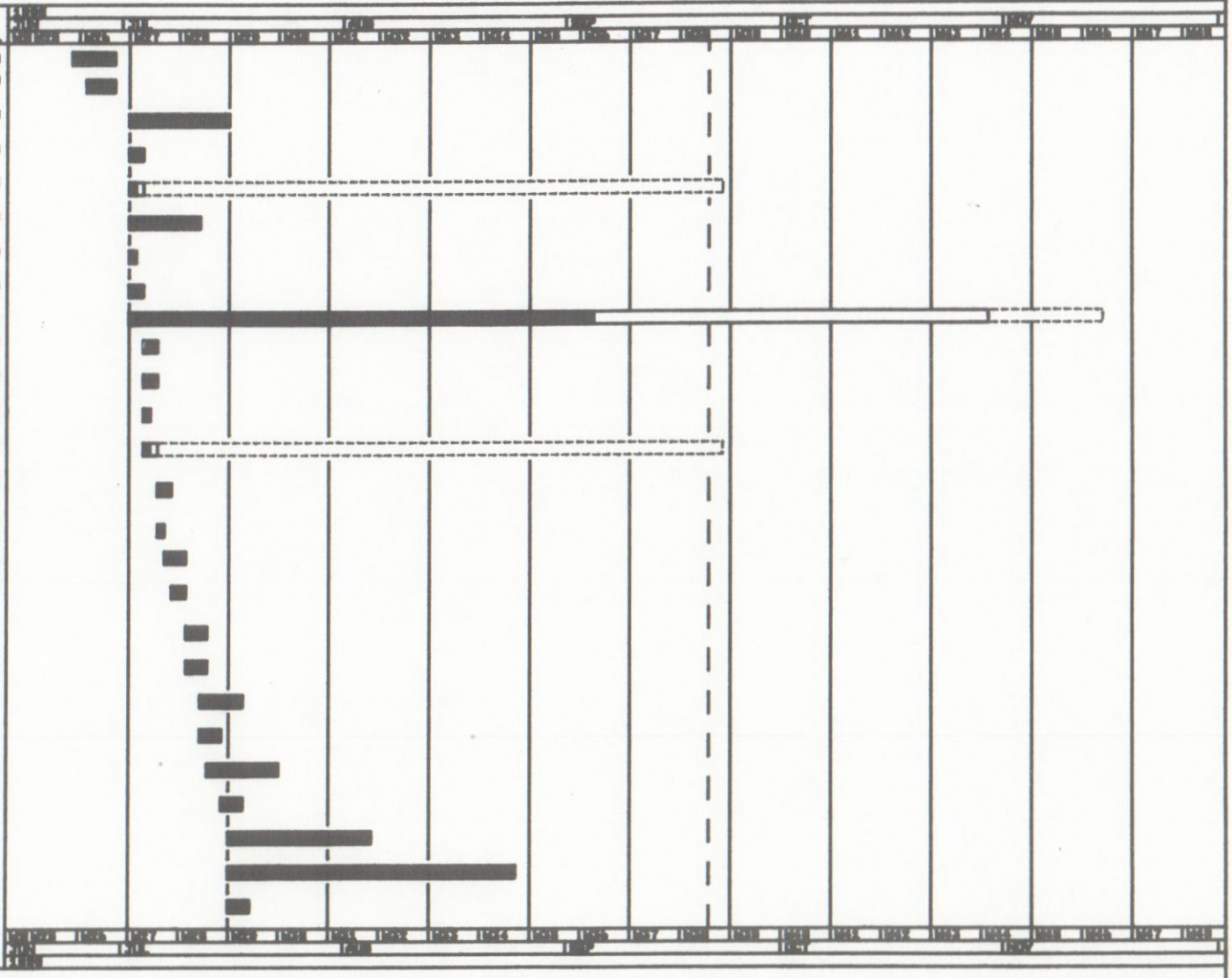
AMS= AKER MAINTENANCE STAV.
EM = EAN MAINTENANCE DEPT
PD = EAN PRODUCTION DEPT
DCD = DRILLING & COMPLETION DEPT

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-09-98

Activity number	Dur-ation	Description	% compl.
28MD15	6	REMOVE 24 FILTER UNIT	100
28MD13	4	STEAMING OF SAND SCRUBBERS/FILTERS CDP1	100
28MD84	14	REMOVE DRILLING EQUIPMENT INSIDE DERRICK	100
25PO82	2	BLINDING OF MAIN GAS TCP2	100
25PO83	2	BLINDING OF VENT SYSTEM DOWN STREAM ME-TP1	15
28MD88	10	STEAMING OF MAIN GAS CDP1	100
25PO80	1	BLINDING OF VENT SYSTEM TO LINE SYST. TP1	100
45ED89	2	DISCONNECT ALL CABLES FOR DERRICK	100
55SO81	120	SCAFFOLDING	54
28MD81	2	REMOVE 4 WINCHES ON DRILLFLOOR	100
28MD88	2	DRAINING OF HYDRAULIC SYSTEM DERRICK	100
28MD86	1	REMOVAL OF INDUSTRIAL PUMPS (SUBSTRUCTURE)	100
25PO84	2	BLINDING OF VENT SYSTEM ME-TP1	15
28MD86	2	REMOVE DISC. INSIDE CHECK VALVE 25'-P-181 TP1	100
28MD89	1	STEAMING OF VENT SYSTEM TP1	100
28MD18	3	STEAMING OF MAIN GAS TP1	100
28MD87	2	REMOVE DISC. INSIDE CHECK VALVE 25'-P-188 TP1	100
28MD11	3	STEAMING OF MAIN GAS TP1/TCP2	100
48MD11	3	PREPARATION OF STEAMING OF HP HUB SYSTEM	100
28MD14	6	REMOVE 16 X 8' BALL VALVE	100
48MD16	3	PREP. FOR CLEANING OF LP-HUB SYSTEM	100
28MD81	18	STEAM CLEAN VENT SYSTEM CDP1	100
48MD17	3	FLUSHING OF LP-HUB SYSTEM	100
28MD82	28	REMOVE PART OF DIESEL ENGINES	100
28SO83	48	REMOVE DERRICK & SUBSTRUCTURES	100
48MD88	3	PREPARE FOR STEAMING OF METH. SYSTEM	100



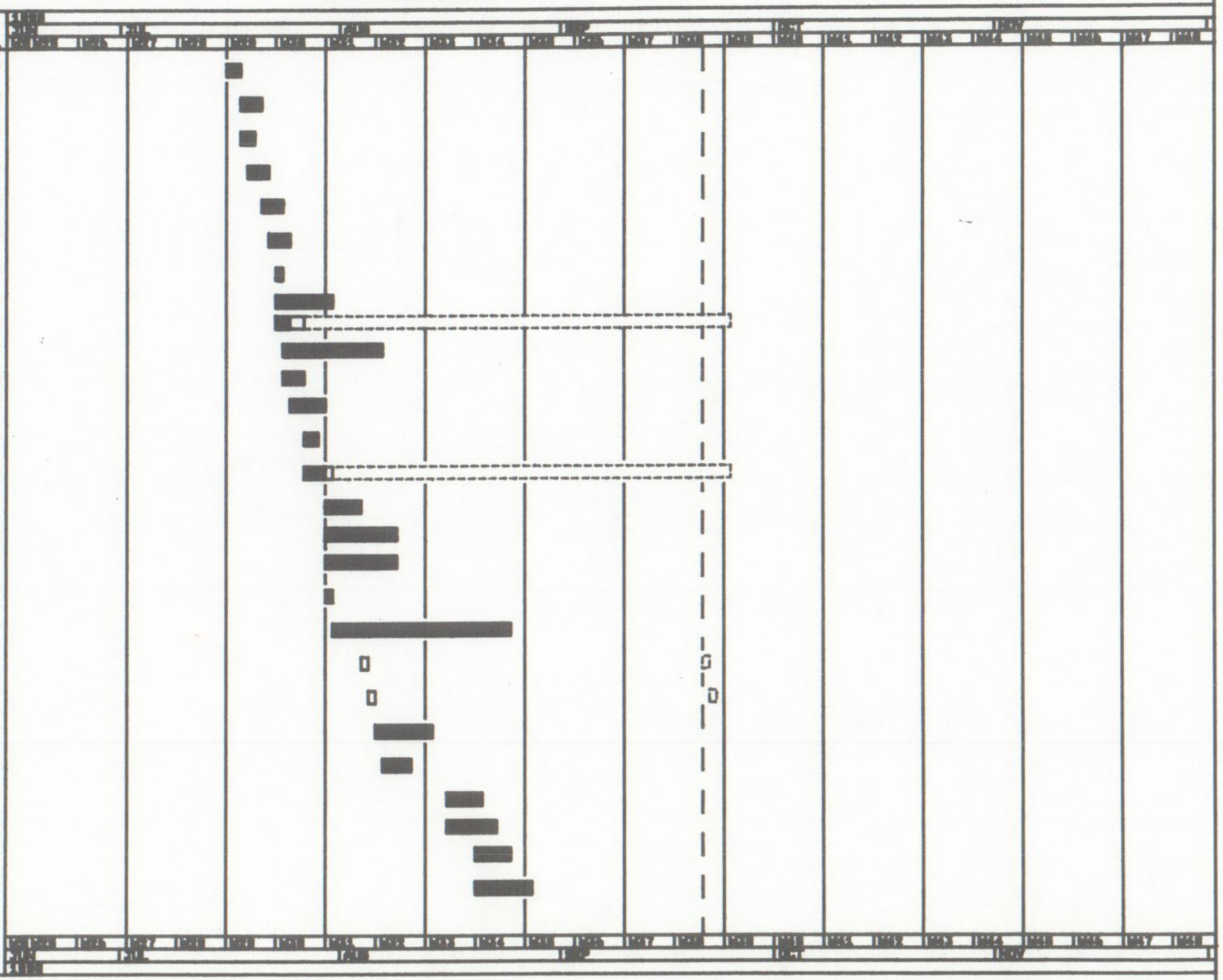
UPDATE PER 28/9-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

Activity number	Dur-ation	Description	% compl.
40MD10	2	REMOVAL OF CORROSION INHIBITOR SKID	100
40MD23	3	STEAMING OF LP MUD SYSTEM RETURN	100
40MD24	2	METH. WATER SYSTEM VENT TO AIR	100
10MD01	3	PIGGING OF SEALINE 26'-P-1012 TP1/CDP1	100
40MD12	3	STEAMING OF HP MUD SYSTEM	100
10MD02	3	PIGGING OF SEALINE 26'-P-1017 TP1/CDP1	100
25PO12	1	REMOVAL OF INLINE ITEMS ON VENT SYST. CDP1	100
38S027	8	REMOVE FLARE BOOMS	100
45I001	4	MODIFY SP MIMIC PANEL	45
35I041	14	DISCONNECT PRODUCTION EQUIPMENT	100
40MD08	3	STEAMING OF METH. SYSTEM	100
10MD03	5	BLINDING OF SEALINE 26'-P-1012 CDP1	100
40MD22	2	DRAINING OF CLOSED DRAIN/SLOP SYSTEM	100
45I003	4	MODIFY INTERFACE CABINET - TP1	90
10MD04	5	BLINDING OF SEALINE 26'-P-1017 CDP1	100
38SF23	10	PREFAB. NEW BRIDGE	100
38SF34	10	PREFAB. SUPPORTS FOR DECK TANKS MD	100
45E013	1	DISCONNECT CABLES ON MASONEILEIEN PUMPS	100
40MD14	25	REMOVE WELLHEAD HYDR. SYSTEM	100
10MD05	1	LEAK TESTING OF N2 FILLED SEALINE 1012	0
10MD06	1	LEAK TESTING OF N2 FILLED SEALINE 1017	0
10P007	8	CORROSION PROTECTION IN J-TUBE	100
35I047	4	DISMANTLE EDUCATION EQUIPMENT	100
38S022	5	INSTALL NEW 'WALKWAY' BRIDGE	100
38S035	7	INSTALL TANK SUPPORTS	100
38S025	5	REMOVE WINDWALLS/INSTALL NEW HANDRAILS	100
38S037	8	REMOVE CONDUCTOR GUIDE FRAME	100



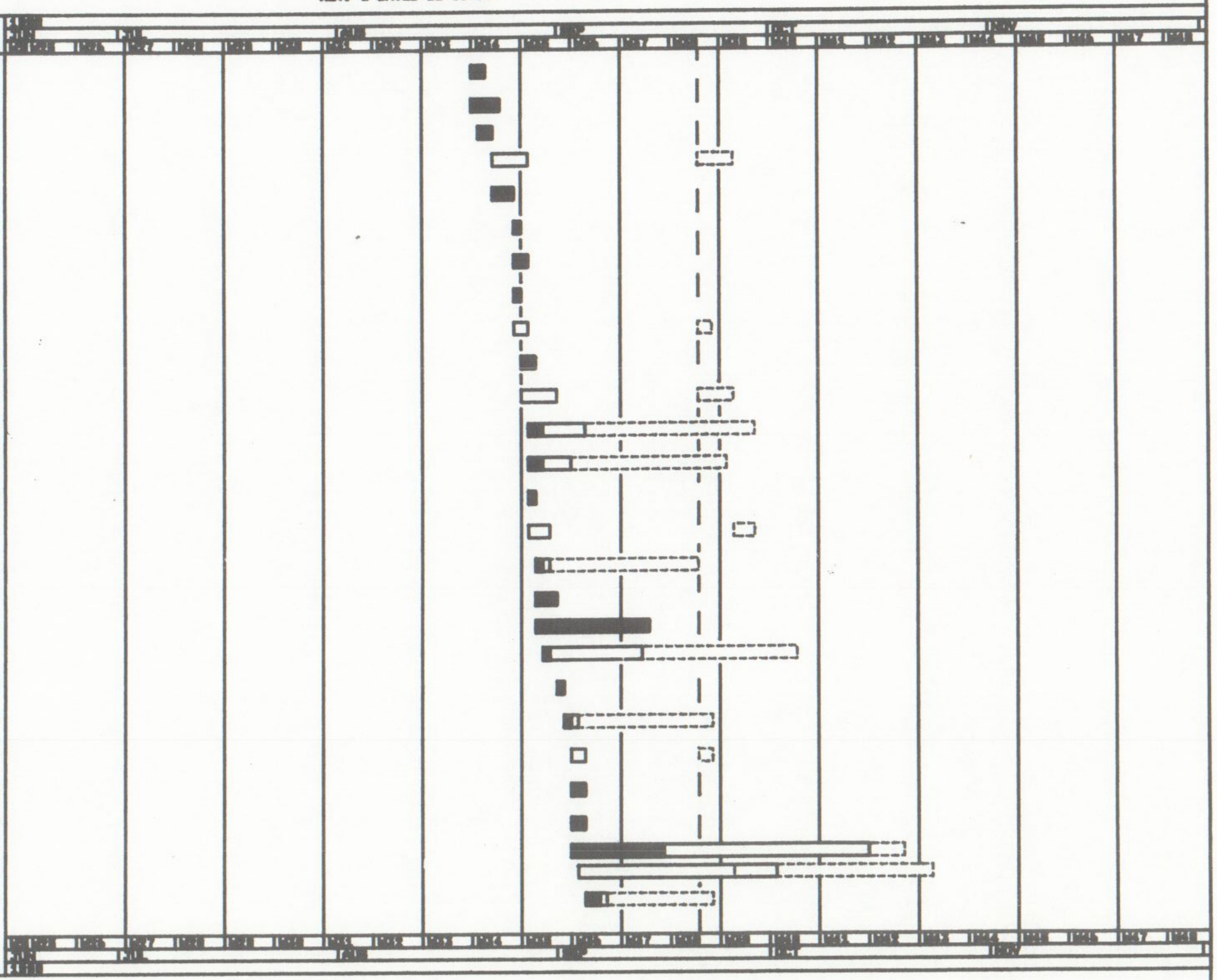
UPDATE PER 20/9-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

Activity number	Dur-ation	Description	% compl.
40MD03	2	DISCONNECT AIR BOTTLES (MANRIDING WINCH)	100
45ED12	4	REMOVAL OFF ALL CABLES FOR DIVING MODULE	100
35SD20	2	CLOSE-OFF ESCAPE LADDER	100
35SD02	5	LOCKING OF ENTRANCE TO BREAKWATER	0
40MD20	3	DRAINING OF SEAWATER SYSTEM	100
40MD20	1	REMOVE 2 OF VIRAS COOLING PUMPS	100
40MD30	2	REMOVE SEAWATER PUMPS 8A 100 A/B	100
40MD34	1	REMOVE SEAWATER PUMPS 8A 107 A/B	100
45ED06	2	DISCONNECT PUMPS 8A 112 A/B/C SEAWATER	0
40MD10	2	VENT & DRAIN COMPR. AIR SYSTEM	100
40MD33	5	INSTALL OF NEW NAV. AIDS & OBSTR. LIGHTS	0
40MD04	8	REMOVE SEAWATER PUMP 8A 112 A/B/C	30
40MD36	6	REMOVE UTILITY RISER (EXCEPT FW & SW)	40
45ED08	1	REMOVAL OF CABLE FOR DIVING PLATFORM	100
50MD03	3	REMOVE LIFESAVING EQUIPMENT	0
40MD07	2	REMOVE INGERSOLL RAND AIR COMPRESSOR	90
40MD32	3	DISCONNECT PARTS OF THE DC COMPRESSORS	100
40SD37	16	REMOVE DIVING MODULE	100
45ED14	14	REMOVE & SEND ONSHORE ALL ACCUMULATOR CELLS	1
45ED02	1	DISCONN. CABLES FOR AIR COMPR.	100
40MD31	2	REMOVAL OF START AIR COMPRESSORS DA 1&2	25
30MD16	2	SAIPEM LQ EVACUATION 3RD FLR CABINS	0
30MD17	2	SAIPEM LQ EVACUATION 2ND FLR CABINS	100
30MD18	2	SAIPEM LQ EVACUATION 1RST FLR CABINS	100
30MD20	42	GENERAL CLEANING	32
40MD05	20	REMOVE MK60 CRANE	0
30MD04	3	NEW LQ EVACUATION 2ND FLOOR GYM/HOSPITAL	90



UPDATE PER 20/9-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-09-98

Activity number	Duration	Description	% compl.
38MD05	2	NEW LB EVAC 3RD FLOOR	100
38MD06	3	PH4 1RST FLOOR EVACUATION	100
38MD07	2	PH4 2ND FLOOR EVACUATION	100
38ID43	4	DISCONNECT MTI SYSTEM	75
38ID45	2	REMOVE ENTERTAINMENT EQUIPMENT	0
48MD21	3	DRAINING OF FIRE WATER SYSTEM	100
38MD28	2	INSTALL 'NEW' WIND INDICATOR	100
38ID06	2	REMOVE TELEPHONE SYSTEM	100
48MD15	2	DRAINAGE OF POTABLE WATER	0
38ID42	2	DISCONNECT CONTROL ROOM EQUIPMENT	100
48MD02	8	REMOVE FIREWATER PUMP 0101B W/RISER	50
48ED07	1	DISCONNECT PUMPS 0A 101 A/B FIREWATER	100
38ID09	1	REMOVE DATA LINK MODEMS	100
48MD01	8	REMOVE FIREWATER PUMP 0101A W/RISER	100
48MD29	1	REMOVE SOFT WATER PUMPS 0A 105 A/B	100
38ID10	1	REMOVE STENTOPHONE SYSTEM	100
38ID11	2	REMOVE SX100 EXCHANGE	0
38ID12	2	DISMANTEL/REMOVE TT48 TELEMETRY EQUIPMENT	100
48ED18	4	DISCONNECT CABLE FOR MK18 CRANE	0
38ID13	5	REMOVE EQUIPMENT FROM RADIO ROOM	95
38MD26	16	REMOVE CORRODED PIPES & CABLETRAYS	50
58MD05	3	NEW FIRE FIGHTING EQUIPMENT HELIDECK	0
38MD46	2	REMOVE OIL STORAGE TANK	100
48MD13	3	PREPARATION OF STEAMING OF GAS, OIL SYSTEM	100
38MD19	2	REMOVE FIRE FIGHTING EQUIPMENT HELIDECK	0
58MD02	3	REMOVE ALL FIRE FIGHTING EQUIPMENT	30
38ID14	2	REMOVE RADIOS/WALKIE TALKIES	0
38ID15	2	NEW RIB MOBILE EVAC. 1 FLR COF. SHOP/OFF	0

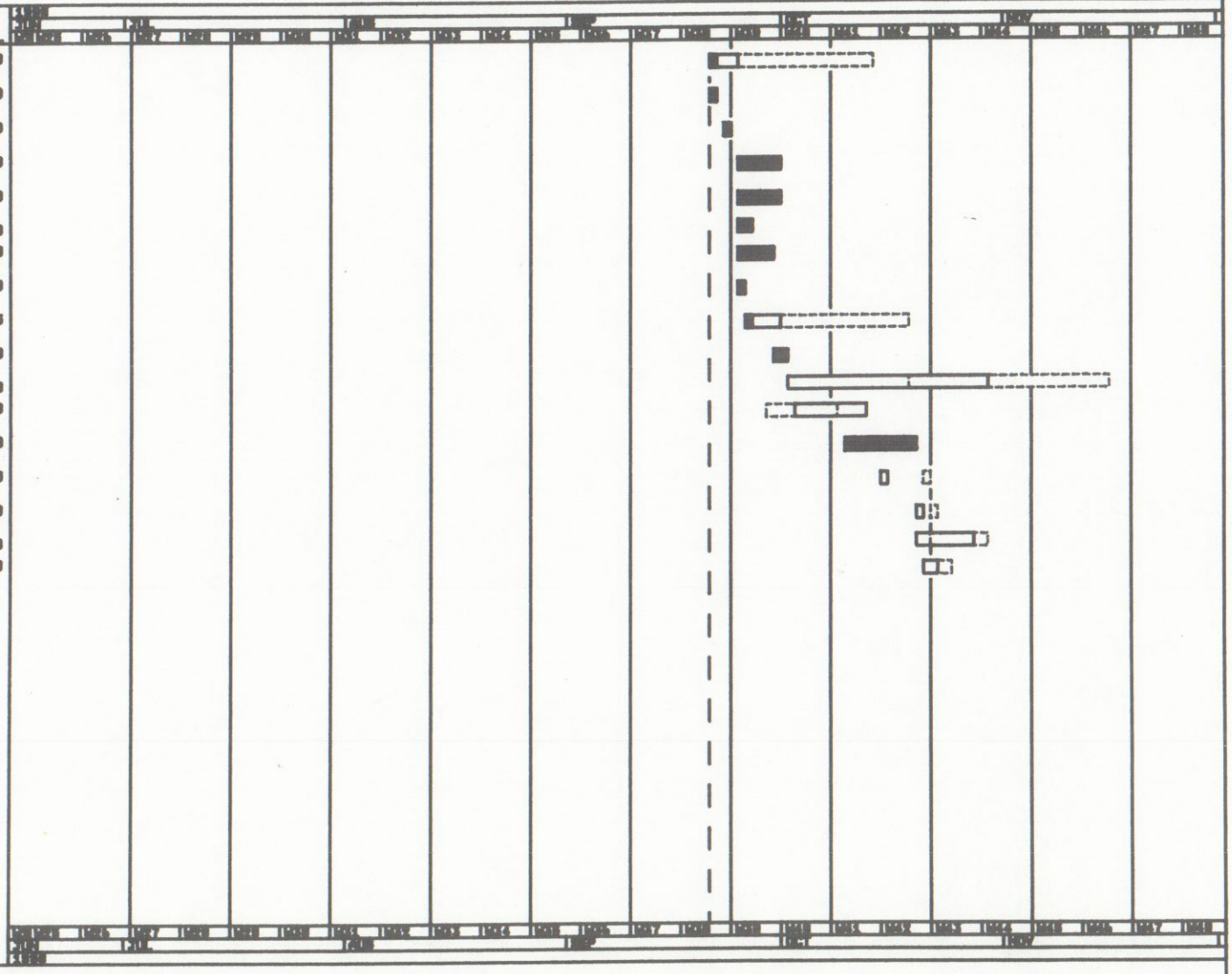
UPDATE PER 28/9-98

CDP-1 - DECOMMISIONING PROJECT

BARCHART AT TASK LEVEL

REV: 1 DATED 11-08-98

Activity number	Duration	Description	% compl.
48M026	4	STEAMING OF GAS OIL SYSTEM	10
48E016	1	DISCONNECT 2 OF DC GENERATORS	100
35I038	1	REMOVE TERMINALS & PRINTERS FOR MIS	100
35I040	6	DISCONNECT FIRE DETECTION EQUIPMENT	100
35I044	6	DISCONNECT GAS DETECTION SYSTEM	100
48M010	2	DRAINING OF STEAM SYSTEM	100
48M027	5	REMOVAL OF 2 DC GENERATORS	100
48E011	1	DISCONNECT ALL HALON BOTTLES	100
58M004	5	DISCONNECT ALL HALON BOTTLES	5
48M028	2	DRAINING OF SEAWATER TANK FB112	100
48M006	20	REMOVE NATIONAL CRANE	0
38M021	10	PAINTING/MARKING/LABELIN G ESCAPEWAY	0
38B001	10	LOCKING OF ENTRANCE TO MODULES	100
48E015	1	DISCONNECT CABLE FOR NATIONAL CRANE	0
48E005	1	SHUT-OFF ALL CIRCUIT BREAKERS	0
58M001	0	REMOVE 8 LIFEBOATS	0
48E004	2	DISCONNECT POWER SUPPLY CABLE	0



UPDATE PER 28/9-98

Encl. 4.1.1

Subject: Personnel movements due to CDP1 closure

Date: 18 May, 1990

Action: Frigg Field Manager

From: P.S. Endresen

Into: N. Gamgit, L. Aga, E. Vollaire, E. Hjelde, J.T. Langøen, A.Ø. Pedersen, E. Torjusen, PM DP2, OIM CDP1 Log. supervisor CC/HMP1, Maint.supt. CC/HMP1

Ref. No.: 311E-FO 89/ 079/PSE/giw

The planning of the abandonment of wells on CDP1 indicates that all wells will be abandoned by second half of July. The final decommissioning works and demanning should then be completed sometimes in the period Oct./Nov. this year.

The personnel movements outlined below may start from when the platform is gasfree - in line with the works ongoing at all times. The field manager and OIM in cooperation with the onshore departments. shall define the detailed manning requirements and when positions may be released from CDP1. The field manager will ensure the proper involvement of the VO's in the decision process. The actual dates for the movements can therefore not yet be defined.

Below are listed the movements of personnel which should be completed latest when CDP1 is demanned. A detailed planning will be prepared by the different departments in due course.

LOGISTIC DEPARTMENT

Marine coordinators

- J. Leitch will be transferred to CC as Marine coordinator.
- J.S. Gilmour, U. Meland and P. DeWangen will remain on DP2.

Radio operators

On closure of CDP1, we will have a total of 12 positions available for 13 EAN employees. We will therefore launch the social plan actions in order to find acceptable solutions.

MAINTENANCE DEPARTMENT

Crane operators

- A. Mortensen has accepted early retirement. R.B. Rae will therefore be transferred to CC.
- K.F. Butler, A.J. Moseley and R. Orriss will remain on DP2.

Instrument technicians

Out of the 6 EAN instrument technicians on CDP1/DP2 - three will be transferred to CC. The selection process has been launched. One position on DP2 will be covered by contractors.

Electricians

Out of the 8 EAN electricians on CDP1/DP2, 2 will be transferred to HMP1. The selection process has been launched.

Maint. supervisors

- A. Borge will be transferred to the telecom team on CC.
- G.J. Haug will be transferred to the mechanical team CC until his retirement in July 91.
- E. Østby will be transferred to the instrument team on CC. He will replace O.S. Larsen in July 92 when Larsen retires.
- K. Brathetland, C.E. Greaker and T. Zimmermann will remain on DP2.

PRODUCTION DEPARTMENT

OIM/prod.supervisors

- K.H. Leknesund will be transferred to CC and replace E.R. Johnsen when he retires.
- O.J. Torjusen will be further evaluated for possible temporary onshore functions.
- S. Sundby, P. Weber and L.M. Wathne remains on DP2.

Production operators

Out of the 20 EAN production operators presently on CDP1/DP2, 3 will be transferred to CC and 2 will be transferred to HMP1. The remaining 15 will remain on DP2. The selection process for the transfers has been launched.

The number of contracted personnel from NH and Securitas will be reduced in line with above and the global manning needs.

P. S. Endresen

elf aquitaine norge a/s

NN

Your date	Your ref.	Our ref. (please quote)	Our date
		311E-FO 90/ 094/PSE/giw	Stavanger 22 May, 1990

In connection with the forthcoming closure of CDP1, you will be affected as outlined in the attached IM to the field manager.

This letter has been forwarded to you directly since your name has been mentioned in the attached IM. Details on schedules will be forwarded you in the normal manner as soon as dates for the transfer is available.

Regards,

P. S. Endresen
Vice President FOD

Postal address:		Location:	Telephone:	Telefax:	Telex:
Main office	P.O. Box 168 N-4001 Stavanger	Dusavik	(04) 50 30 00	(04) 50 34 81	73174 elf-n
Oslo office	P.O. Box 1478 Vika N-0116 Oslo 1	Wergelandsveien 7	(02) 20 62 00	(02) 41 56 85	77057 elf-n
Harstad office	P.O. Box 476 N-9401 Harstad	Medkila	(082) 73 355	(082) 74 556	65827 elfh-n
Trondheim office	P.O. Box 699 N-7001 Trondheim	Olav Tryggvasonsgt. 39-41	(07) 52 11 90	(07) 51 20 33	55107 elf-n

Encl. 4.1.2

	Subject: DECOMMISSIONING, MANNING AND OPERATIONAL PROCEDURES/EQUIPMENT RELATED TO SAFE OPERATION	Date: June 26, 1990
	Action: P. SOLBERG, J.T. LANGØEN, A.Ø. PEDERSEN	From: FFM
IM	Info: P.S. ENDRESEN, E. VOLLAIRE, H. LYE, S. EKELI, P. LAMONTRE. B. HEGRUM. T. BERGAN, O. KRAFT, OIM CDP1, PM DP2, PSI, MSI, CSI, SSI, HVO	Ref. No: 311E-FFM 90/ 063/GWS/th

K.R actions HV into

Attached you will find an evaluation of the equipment needed for safe operation on CDP1 during the different phases of the decommissioning work. Some items are marked for further evaluation. It shall also be mentioned that the lists may not be complete and evaluation regarding the different items should also be done onshore.

Regarding the manning in the different phases this has been agreed upon between the HVO and FFM.

Further, it is important to note that it is our firm recommendation that the Living Quarter is kept operational as long as possible and that the planning regarding this is optimized.

The different departments are requested to check that their crews are trained.

G.W. Syslak

CDP1 DECOMMISSIONING

Emergency Organisation

Other Operational Procedures

The purpose of this note is to define the necessary adaptions having to be done to the Emergency Organization and to the other Operation Procedures during this new situation.

Two periods must be considered:

1. Period starting from the day when CDP1 platform is declared "free of gas" and finishing when the Living Quarters are closed.

2. Period starting from the "closure of the Living Quarters" up to the end of the decommissioning operations.

Definitions:

- "Free of gas": Means that the steaming of the process equipment is completed, the flammable liquids are removed (except the necessary quantity of diesel oil), the 2 x 26" sea lines are decompressed, cleaned and isolated on the TP1 and TCP2 ends.

- "Closure of Living Quarters": Means the L.Q. cannot be longer normally used due to the decommissioning of the utilities of safety functions. All quarters are locked, only temporary rooms for lunch, toilets and "bad weather" waiting accommodations are in service.

1. FIRST PERIOD

1.1 **Responsibility.**
The overall responsible on the platform is the OIM reporting to the Frigg Field Manager.

1.2 **Manning.**
- 1 OIM
- 1 safety
- 1 rig officer/radio operator
- 1 marine co-ordinator/HLO
- 1 crane driver
- 1 nurse
- 4 operators
- 1 maint. supervisor
- 1 sen. instrument technician
- 2 electricians
- 6 catering
- 2 maint. technicians

TCD crew: 35 persons (approx.).
MSD diving crew: 10 persons during the weeks 30, 31, 32.
At this stage TCD should also supply a lifeboat crew i.e. 2 coxswains and 1 lifeboat commander.
This crew will then take over as lifeboat crew in the second period.

1.3 **Emergency Organization**

During this period the manning of the permanent crew (see para. 1.2) allows the normal Emergency Organization to be applied except for the Fire Technical Team which is reduced from 9 to 8 persons.

Equipment necessary to be kept in this period are:
- fire water pumps
- fire hoses
- safety systems related to the Living Quarters
- radio
- 2 lifeboats, life-jackets and survival suits
- liferafts (no. to be studied)
- all the lifebuoys
- crane
- alarm system/public address.

1.4 **Other procedures**

All other procedures listed in the EAN Platform Management Manual and in Operational Procedure Manual are applicable.

Regarding the Work Permit Procedure, as far as the platform is free of gas the risk of fire is largely reduced, more attention shall be paid to other possible hazards such as:

- Risk of personnel falling due to temporary removed grating or to possible hole left in the deck after equipment removal.

- Risk of falling objects due to the large quantity of liftings/handlings and work ongoing on different levels.

- Possible risk linked to the simultaneous presence of divers (weeks 30-32) and other workers above on top side.

- Risk linked to the definitive removal of electrical equipment: A definitive electrical isolation shall be differentiated from a possible temporary isolation both on the certificate and physically in the electrical room.

2. SECOND PERIOD

2.1 **Responsibility.**

The overall responsible on the platform is the OIM reporting to the Frigg Field Manager.

2.2 **Manning.**

The following personnel will be shuttled every day by helicopter:

- 1 OIM (with VHF certificate) (Safety OIM)
- 1 CSI Supervisor (assistant OIM)
- 1 Sen. electrician
- ~~1 Nurse (if more~~ than 1 helicopter, i.e. 9 persons) included in SSV.
- Contractor crew with the following trained personnel:
  2 Coxswains
  1 Lifeboat commander
  2 Smoke-divers

Max. no. of persons onboard: 18.
When 18 persons onboard, there might be a need for a steward/helper part of the day.
Only day-shift allowed.

2.3 **Emergency Procedure.**
Fire extinguishers.
Alarm.
Muster point.
Radio communications with QP, VHF, supply boat, helicopter, etc.
Survival suits as long as more than 1 helicopter, when only 1 helicopters the personnel have their own.
Lifeboat (no. to be studied)
Liferaft (no. to be studied)

2.4 **Other Procedures.**

2.4.1 **Shuttling Procedure**
Same as for shuttling to FCS.

2.4.2 **Work Permit Procedure**
List of remaining tasks.
Associated precautions.
How handle the WP procedure.

2.4.3 **Bad Weather Waiting Accommodation**
Reserve of food.
Bedding.
Room for meals and coffee and smoking area.
Fire detection.
Ventilation.
Alarm system.
Cleanliness.
Trash container.
Office facilities.
Etc.

3. CONCLUSIONS

The above statements under chapters, 1 and 2, regarding procedures cannot be considered complete. Further evaluation and checking of rules and regulations may be needed.

The HVO and the FFM have reviewed and agreed upon the core team manning as listed under 1.2 and 2.2. For the notice to the long term contracted personnel leaving CDP1, please take notice of the statement made in KAMU regarding 3 months notice time. Personnel will then have to work elsewhere on Frigg.

HVO wants to revert to the manning on the second period if heavy work has to be done. Changes will be agreed upon between HVO and FFM offshore.

Tarjei Lodden
T. Lodden

G.W. Syslak

FRIGG OFFSHORE EMERGENCY ORG.

EMERGENCY TEAMS

CDP1 DECOMMISSIONING UP TO THE CLOSURE OF LIVING QUARTER.

Emergency Teams - CDP1

Fire & Technical Team

Leader:
- Maintenance Supervisor
- Sen. Electrician
- Sen. Instr. Tech.
- Mechanic (when onboard)
- Operator (on duty)
- Operator (off duty)
- Operator (off duty)

First aid/rescue team

Hospital

Leader:
- Medical Nurse
- Steward
- Search Team

Search Team

Leader:
- Camp Boss
- Steward
- Steward
- Steward (when onboard)
- Steward (when onboard)

FRIGG OFFSHORE EMERGENCY ORG.

EMERGENCY TEAMS

CDP1 DECOMMISSIONING UP TO THE CLOSURE OF LIVING QUARTER.

Coxswain

Lifeboat no. 1
(Personnel with pre-allocated tasks in an emergency)

- Lifeboat commander: Electrician
- Coxswain: Crane Opr. } Check if trained
- Coxswain: Marine Coord. }

Lifeboat no. 2
(Personnel with pre-allocated tasks in an emergency)

- Lifeboat commander: Instr. Tech.
- Coxswain: Mechanic } Check if trained
- Coxswain: Sen. Mechanic }

Note:
The max. number of personnel allowed onboard (visitors included) is the number of manned lifeboats x 42, i.e. 84.

FRIGG OFFSHORE EMERGENCY ORG.

EMERGENCY TEAMS

CDP1 DECOMMISSIONING UP TO THE CLOSURE OF LIVING QUARTER.

Helicopter Operations

Heliguard Marine Coordinator
Fire-watch Crane Operator

Personnel status

Station: Rig Office/Radio Room

Rig Officer/Radio

Crane & basket operations

Marine Coordinator
Crane Operator

Communication

Station: Radio Room/Rig Office

Rig office/radio

Control Room Operations

Operator (on duty)

Coordination

Station: Control Room/Command Centre

Production Supervisor (OIM)
Safety Supervisor

	Subject: CDP1 DECOMMISSIONING - SECOND PERIOD MANNING AND ORGANIZATION	Date: July 12, 1990
	Action: P. SOLHAUG/B. HEGRUM - TCD, P.S. ENDRESEN - FOD, S. EKELI - HSQA,	From: FFM H. DELYE
IM	Info: SSI, HVO, LS, CSI, MSI, PSI, OIM CDP1, J.T. LANGØEN - POD, E. VOLLAIRE - FOD, A.Ø. PEDERSEN - MAINT, COORD. HVO.	Ref. No: 311E FFM 90 068/HD/rsl

H → KK info.

Reference is made to memo 311E FFM 90/063/GWS/th where organizational matters during first phase of CDP1 decommissioning are described and agreed upon between Frigg field manager and HVO.

The purpose of this memo is to present guide-lines for the organization of the working environment during the second period of CDP1 decommissioning as foreseen by field manager. The guide-lines are attached to this memo.

Following actionsare proposed:

1. **TCD**

1.1 DEn.
- Contact with DEn.
- The situation being transitory we suggest that DEn is to be informed in writing about our plans. If necessary formal dispensation can be requested later from the regulations. This contact have to be taken as soon as possible due to delay for answer.

1.2 Work planning.
Prepare plans in order to;
- keep PM4 available as long as possible,
- remove and drain flammable liquid as soon as possible and before fire water is unavailable,
- remove life-boats, except the two last one at end of first period,
- provide water for washing and for toilets as long as possible (container),
- finalize the list of portable safety equipment with HSQA and provide them.

2. **FOD**

Check with DEn if it is needed and if necessary apply for;

2.1 OIM appointed for the following Safety supervisor I. Nilsen, A. Lundal, O. Østensen, R. Kristiansen and G. Lundal. These persons are already appointed to act in place of the OIM.

2.2 Appointment to act in place of OIM for following TCD rep M. Oram, S. Aas and L. Pettersen.

2.3 Finalize standing instructions for helicopter operations.

3. **HSQA**

Organize special course for advanced first aid training (equivalent to 1 day course given for FCS team) for the Safety supervisor mentioned under 2.1.

4. **Field Manager**

- Continue discussions in order to reach an agreement about the presence of a nurse under certain circumstances.

- Continue discussions about helicopter operations to evaluate if transportation of the core team alone in the first and last helicopter has to be planned.

H. Delye

CDP1 DECOMMISSIONING
SECOND PERIOD
EMERGENCY ORGANIZATION AND SYSTEM OF WORK
GUIDE LINES

1. GENERAL

1.1 Definition of the second period.

Refer to memo 311E FFM 90/063/GWS/th
This period starts when the main living area are closed and the platform cannot be permanently manned anymore.

The remaining decommissioning work is performed using day shift transported from other Frigg field platforms.

1.2 Duration of second period.

According to TCD plans this period extend for 6 to 9 weeks starting in September 1990.

1.3 Status of the platform.

1.3.1 Living quarter.
- Saipem L.Q. and new village closed.
- PM4 available part of the time.
- Last emergency shelter. New rig module.

1.3.2 Safety equipment.
- Permanent safety equipment under decommissioning for example neither water system available nor detection system working at the end of the period.
- Portable safety equipment kept as required.

1.4 Works to be performed.

Refer to TCD plans.
Mostly mechanical demolition (crane and pump casings removal).
Electrical disconnections.

1.5 Potential Danger.

- Gas: Absent.
- Electricity: Present.
- Flammable liquids: Reduced to minimum and removed at the end (gas oil).
- Flammable material: Reduced (living quarter empty).
- Accidents: Risks increased for falls and lifting accidents because of the demolition activities.

2. PRINCIPLE OF OPERATIONS

During the second period of decommissioning the number of workers will be limited to the capacity of two shuttle helicopter trips, i.e. max 22 persons in exceptional cases and 18 persons on routine basis (9 is the normal helicopter capacity).

- The work will be only on day shift and people accommodated on other Frigg field platforms.
- The Emergency duties will be covered by a core team of 3 Elf personnel.
- The OIM and core team leader will be the Safety Supervisor.

3. EMERGENCY ORGANIZATION

The organization is simplified to a maximum because the fire dangers are very much reduced and the danger of explosion due to hydrocarbons is nil.

It is based on the use of multiskill persons organized in a core team of Elf employees.

3.1 Core team.

The core team consists of 3 persons:
- OIM: Safety supervisor.
- TCD supervisor as OIM replacement.
- Senior electrician (or electrician).

It is worth to mention that most of the time an additional Elf employee will be onboard and can be integrated in the core team; this is the crane driver.

3.2 Life-boats/life-rafts.

Two life-boats (4 and 1) and 2 life-rafts to be kept onboard. The last days only the life-rafts will be available, the main evacuation mean being the helicopter.

3.3 Life boat crew.

- Life-boat commander:	OIM/SSV.
- Coxswain:	Electrician.
	TCD supervisor.

3.4 Life jackets/Survival suits.

- Life jackets to be kept close to each life-boat according to regulation.
- Survival suits (22) to be kept inside the main life-boat (LB 4).

3.5 Fire fighting equipment

When fire water no more available, only portable equipment to be used. Number and location to be agreed upon with Safety department.

3.6 Smoke diving equipment.

2 sets to be kept onboard with spare bottles for use by OIM and electrician.

3.7 Fire fighting crew.

No fire fighting crew, evacuation of the platform takes place if the portable extinguisher are inefficient, only possibility of smoke diving is left.

3.8 Communication.

- Ship.
- Helicopter.
- QP.

At the very end using VHF portable sets.

3.9 Muster point.

- Life boat.
- Man in charge of head count: TCD supervisor.

3.10 Alarm signal.

During last days portable horn to be provided and placed at strategic points.

3.11 Muster drill.

Regular drill to be practised as required by law.

3.12 First aid.

First aid to be given by the OIM/SSV and more support can come from QP or DP2 in case of casualty.

3.13 Temporary hospital

Medical equipment and stretchers stored in Radio room.

3.14 Core team qualification.

	OIM	First aid	HLO	Coxswain	FiFi	VHF	Tactic
OIM/Safety supervisor	X	X	X	X	X	X	X
TCD supervisor				(X)*			
Electrician				X	X		
(Crane driver)			X	X	X		

* ( ) most of the TCD supervisor have coxswain course.

4. OPERATIONS

4.1 Helicopter.

- Helicopter operations based on same principle as for FCS; direct view of CDP1 from QP Radio room.
- OIM has HLO course.
- Fire guard is the electrician.
- TCD supervisor is the 3rd proximity person.

The core team is transported in the first helicopter to land on platform, and the last to leav-
A standing instruction for helicopter operations is to be prepared.

4.2 Crane operations.

As long as crane are in use, the crane driver is provided by EAN in order to take advantage of his qualifications related to emergency organization.

4.3 Personnel status.

- Taken care of by OIM and QP Logistic supervisor.
- Same principle as for NEF.

4.4 Communication.

- Use of VHF by OIM; office in radio room. Other communications are through portable sets.
- Normal channels to be used.

4.5 Living quarter/emergency shelter.

- New rig module will only be kept open at last.
- Camp beds for 22 to be stored onboard with toilet articles.
- Toilet and a wash basin must be kept operational as long as practical possible.
- At the very last time fresh water to be supplied by container.
- Emergency food stock must be kept onboard.

4.6 Catering.

Food transported from QP for lunch.

4.7 House keeping.

Taken care of by one contractor employee.

4.8 Work permit system.

- The normal form will be used, but the procedure will be simplified.
- Only work permit for main and electrical work;
  . signature by OIM for both Safety and OIM,
  . signature by operational responsible delegated to TCD supervisor.

4.9 Electrical isolation certificate.

- The present philosophy must be kept enforced. Permanent isolation must be notified on the E.I. certificate and physically labelled on site.

The second qualified electrician is to be provided by contractors.

5. POINTS WHERE DECISION IS STILL PENDING

The following points have not been agreed upon between FFM and HVO:

5.1 The necessity to have a nurse onboard if more than 9 persons are onboard as stated in the memo 311E FFM 90/063/GWS/th.

5.2 The transportation of the core team alone in the first and last helicopter, other workers being transported in intermediate flights.

Further discussions will take place.

H. Delye
Frigg field manager

Encl. 4.2.4

	Subject: CDP1 DECOMMISSIONING - SECOND PERIOD MANNING AND ORGANIZATION	Date: July 16, 1990
	Action: FRIGG FIELD MANAGER	From: FFM H. DELYE
IM	Info: P.S. ENDRESEN/E. VOLLAIRE - FOD, OIM CDP1, P. SOLHAUG/B. HEGRUM - TCD, COORD. HVO, H. LYE/S. EKELI - HSQA, SSI, HVO, LS, CSI.	Ref. No: 311E FFM 90 072/HD/rsl

18/7 ✓ → VR 'info.

On 15.07.90, according to point 4 from memo on same subject ref. 311E FFM 90/068/HD/rsl a discussion took place between HVO and FFM.

Following was agreed upon:

1. Emergency organization and system of work at CDP1 during second period of work is acceptable as described on guide-line attached to referenced document with following addition.

2. When more than 11 people are planned to be on board or when special dangerous operation are planned the need for the presence of a qualified nurse must be decided between FFM and HVO.

3. Helicopter transportation will take place with full load of helicopter for first and last helicopter as planned in point 4.1 of guide-lines.

H. Delye
FFM

H. Velund
HVO

Encl. 4.2.5

	Subject: OIM DURING CDP1 DECOMMISSIONING	Date: August 8, 1990
	Action: P. SOLHAUG, B. HEGRUM, S. EKELI	From: FFM G.W. SYSLAK
IM	Info: SSV, SSI, LS, CSI, MSI, PSI, P.S. ENDRESEN, E. VOLLAIRE, J.T. LANGØEN, A.Ø. PEDERSEN, HVO.	Ref. No: 311E FFM 90 086/GWS/rsl

10/8 Hy → cc: VR info

Reference made to telecon. P.S. Endresen/G.W. Syslak 07.08.90.

The following has been decided upon:

The present OIM's will act as OIM for the decommissioning period and follow the crew to CDP1 if and when space available on the helicopter.

The OIM's will when stationed on QP have special responsibility to follow and monitor the work progress and safety on CDP1 and keep the FM informed.

The Safety Supervisor will act on behalf of the OIM and will always be in the core team for CDP1.

G.W. Syslak

	Subject: CDP1 decommissioning phase II. Emergency Organization	Date: August 21, 1990
	Action: OIM CDP1	From: H. Delye FFM
IM	Info: SSI, DP2-PM, SSV CDP1, CSI, HVO, P.S. Endresen, E. Vollaire, H. Lye, S. Ekeli TCD: Solhaug, Hegrum	Ref. No: 311E FFM 90/ 090/HD/th

EMERGENCY ORGANIZATION

The organization is simplified to a maximum because the fire dangers and the danger of explosion are very much reduced.

It is based on the use of multiskill persons organized in a core team of Elf employees.

Core team.

The core team consists of 4 persons:
- OIM: Safety supervisor.
- TCD supervisor as OIM replacement.
- Senior electrician (or electrician).
- Nurse

It is worth to mention that most of the time an additional Elf employee: The Crane Driver will be onboard and can be a back up for the core team.

Life-boats/life-rafts.

Two life-boats (4 and 1) and 2 life-rafts to be kept onboard. The last days only the life-rafts will be available, the main evacuation mean being the helicopter.

Life boat crew.

- Life-boat commander:	OIM/SSV.
- Coxswain:	Electrician.
	TCD supervisor.

Life jackets/Survival suits.

- Life jackets to be kept close to each life-boat according to regulation.
- Survival suits (22) to be kept on platform.

Fire fighting equipment

When fire water will no more be available, only portable equipment is to be used. Number and location of equipment are as described in revised safety plot plan and will be changed according to work progress.

Smoke diving equipment.

2 sets to be kept next to rig office under the helideck with spare bottles for use by OIM and electrician.

Fire fighting crew.

There is no fire fighting crew, evacuation of the platform takes place if the portable extinguishers are inefficient, only possibility of smoke diving is left.

Communication.

- Ship.
- Helicopter.
- QP.

are taken care of by OIM and Nurse from radio room.
Point to point telephone ex Seaway Condor will be installed.

At the very end VHF portable sets are used.

Muster point.

- Main muster point is rig office
- Alternative muster point lifeboat No. 1.
- Person in charge of head count: TCD supervisor.

Search Team.

No specialized search team is established. If search deemed necessary, TCD Supervisor and Contractor crew can be requested by OIM to do so.

Alarm signal.

During last days when PA is disconnected portable horns to be provided and placed at strategic points.

Muster drill.

Regular drill to be practised as required by law.

First aid.

Medical care will be given by the Nurse. The OIM/SSV is the second medically trained persons (first aider).

Temporary hospital

Medical equipment and stretchers will be stored in the Rig Office.

Stretcher Team.

There is no stretcher team. Contractor personnel can be mobilized by nurse if necessary.

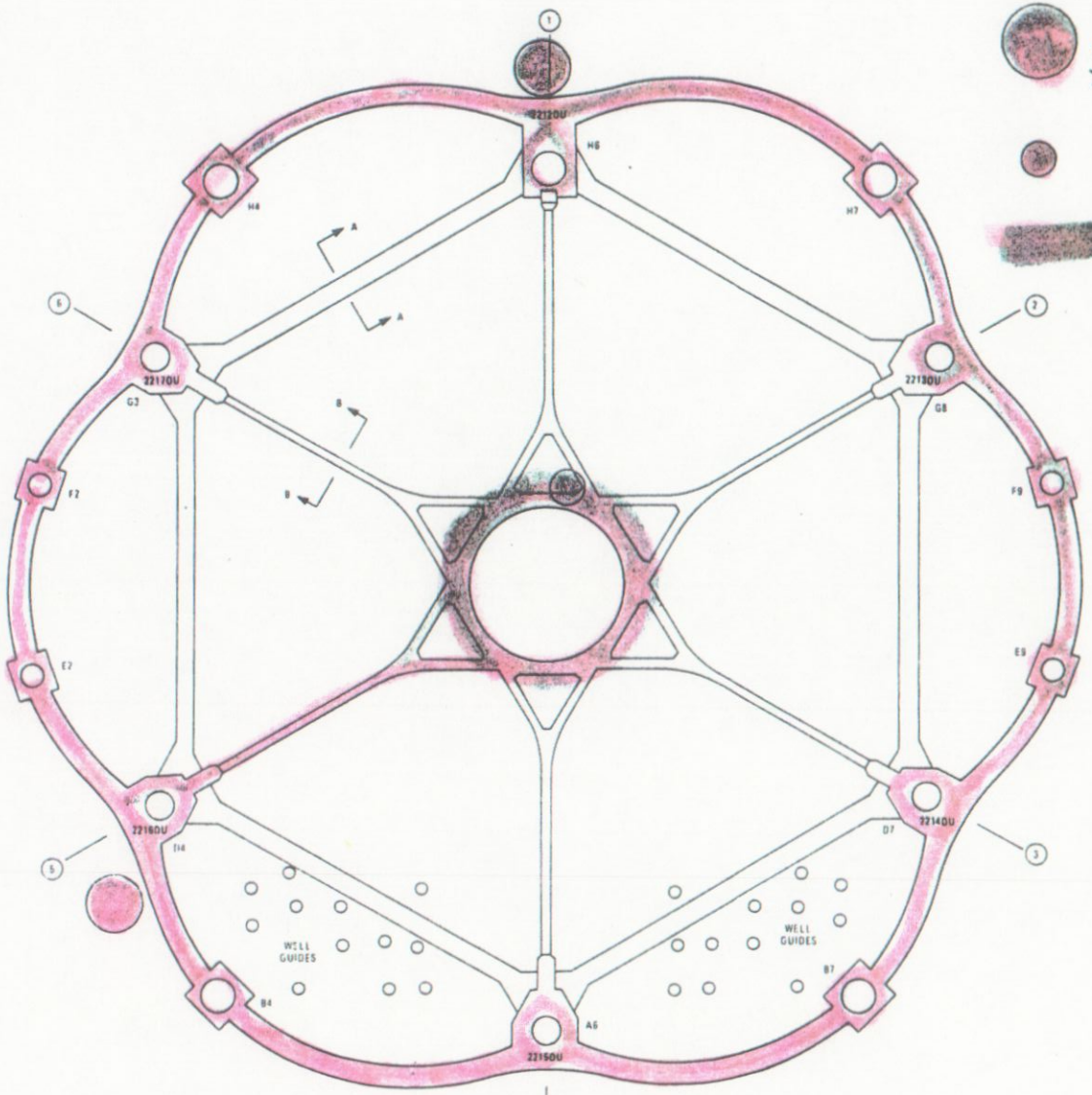
Core team qualification.

	OIM	First aid	HLO	Coxswain	FiFi	VHF	Tactic
OIM/Safety supervisor	X	X	X	X	X	X	X
TCD supervisor				(X)*			
Electrician				X	X		
(Crane driver)			X	X	X		
Nurse		X					

* ( ) most of the TCD supervisor have coxswain course.

H. Delye
Frigg Field Manager

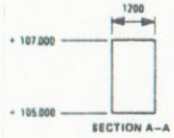
KEY	
EXAMPLES	
5	DIAPHRAGM NUMBER
E2	COLUMN CODE
22120U	ITEM IDENTIFICATION NUMBER



ACCESS LADDER FROM SEA LEVEL TO TOP OF BREAK WATER WALL.

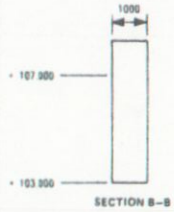
STAIRS FROM SERVICE DECK LEVEL

ACCESS WAY FOR INSPECTION



SECTION A–A

N
PLATFORM NORTH

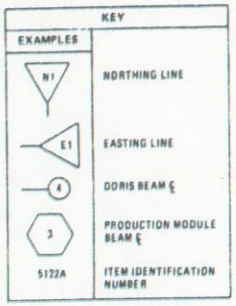


SECTION B–B

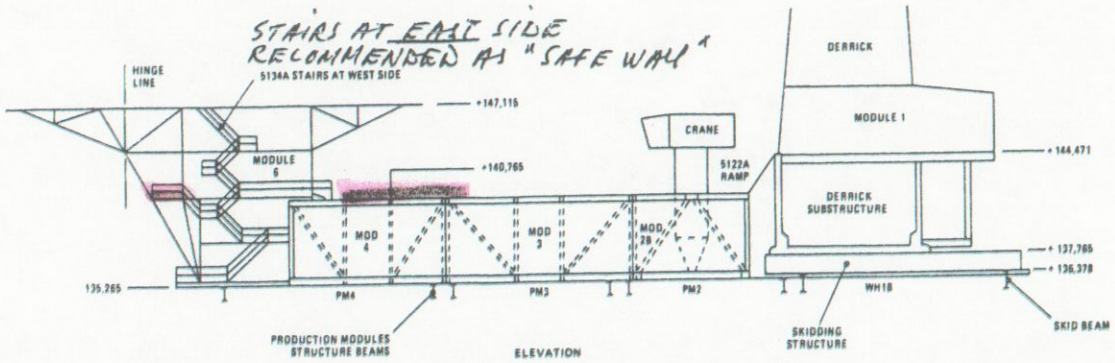
SKETCH 1

FIGURE 6 PLAN AT +108,000

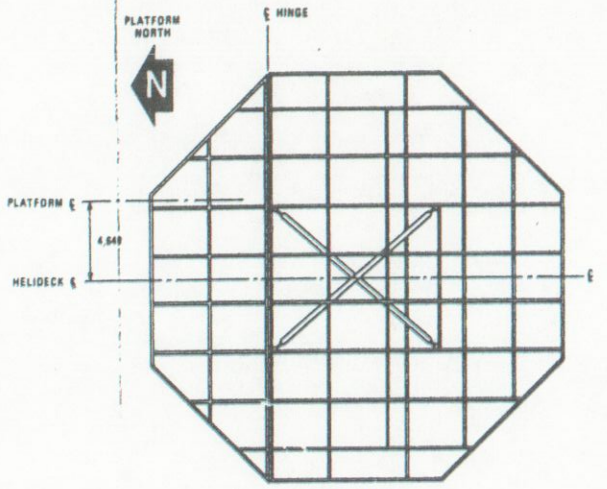
Sketch 5.2.1



STAIRS AT EAST SIDE RECOMMENDED AS "SAFE WAY"



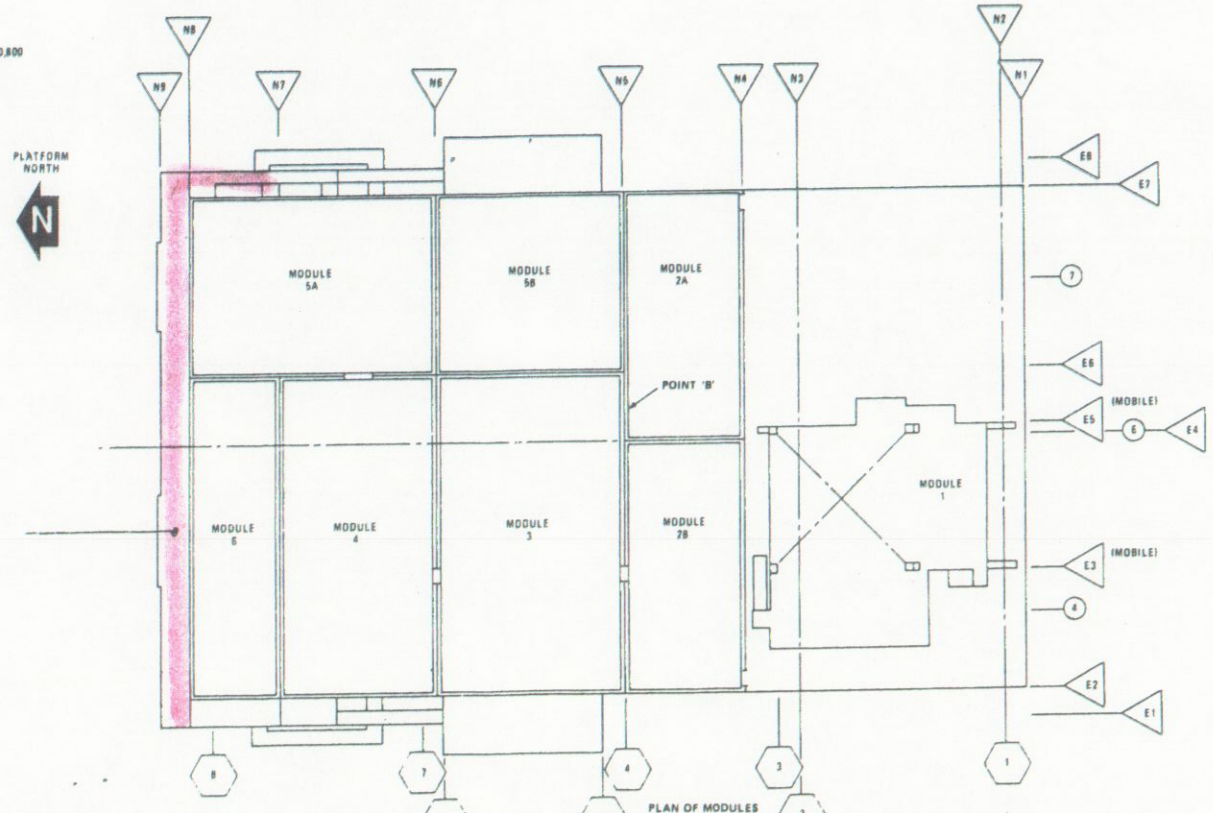
ELEVATION



PLAN OF HELIDECK

GENERAL INSPECTIONS

5131A	ALL GANGWAYS AT +140,800
5132A	ALL GANGWAYS AT +135,300
5133A	STAIRS AT EAST SIDE OF MODULE 6
5136A	STAIRS AND LANDINGS +135,300 TO +140,800



PLAN OF MODULES

ACCESS WAY FOR INSPECTION

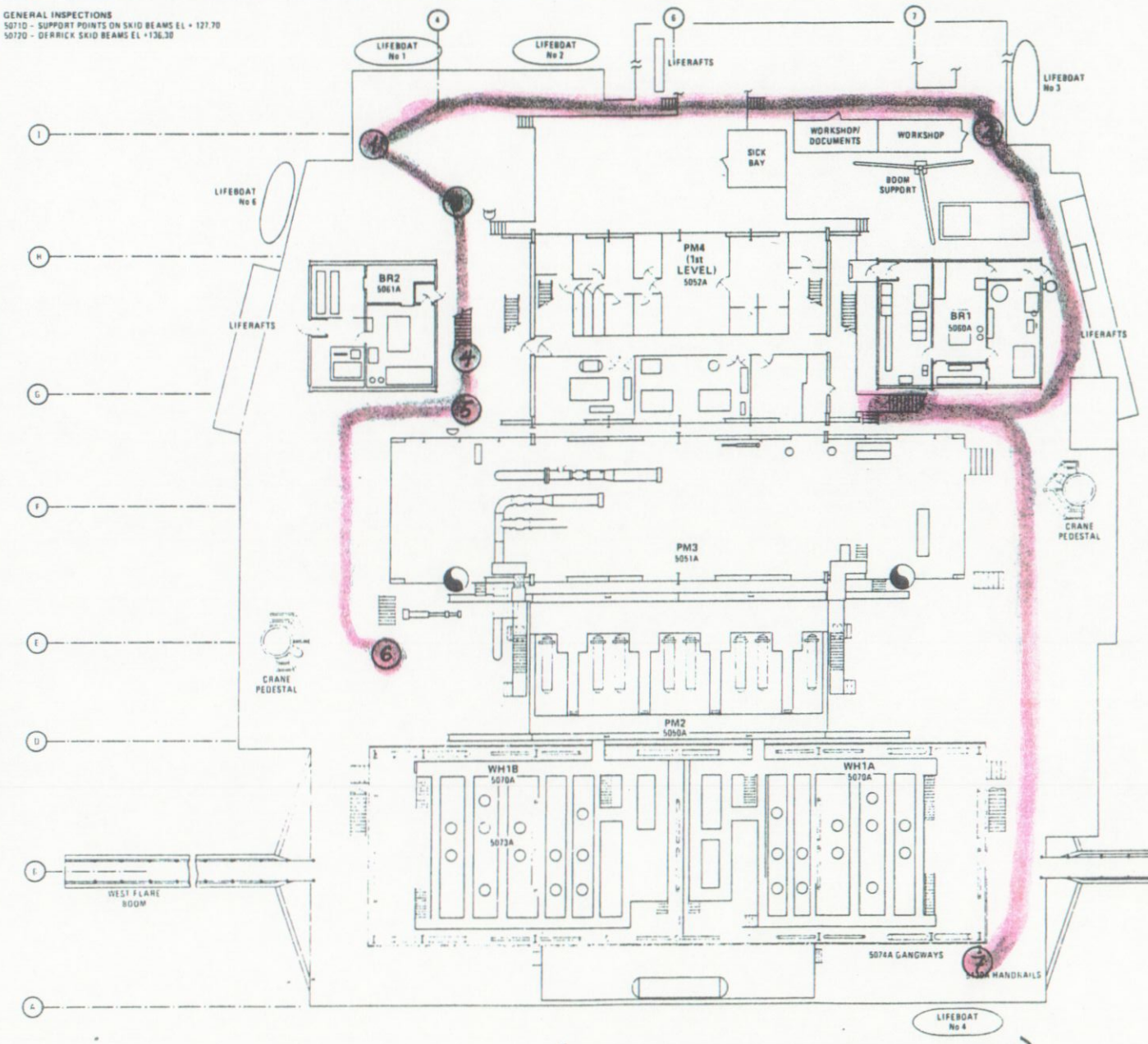
GANGWAY FOR INSP. OF HELIDECK STRUCTURE

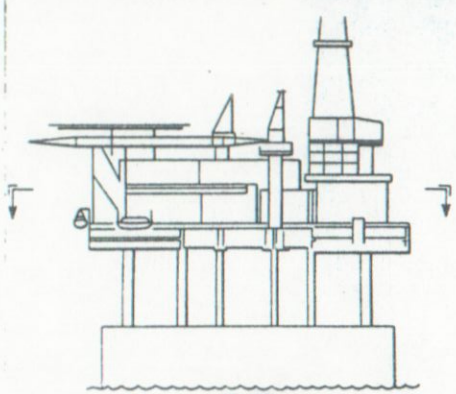
(FIGURE 1 STRUCTURE IDENTIFICATION SYSTEM)

SKETCH 2

Sketch 5.2.2

GENERAL INSPECTIONS
5071D – SUPPORT POINTS ON SKID BEAMS EL + 127.70
5072D – DERRICK SKID BEAMS EL +136.30





1. HATCH, ACCESS TO CANTILEVER AND SUPPORT POINTS
2.
3. EMERGENCY LADDER
4. STAIRS TO PUMP ROOM
5. EMERGENCY LADDER
6. STAIRS TO SD 1 (SERVICE DECK)
7. ACCESS TO INIP. PLATFORM

ACCESS WAY FOR INSPECTION

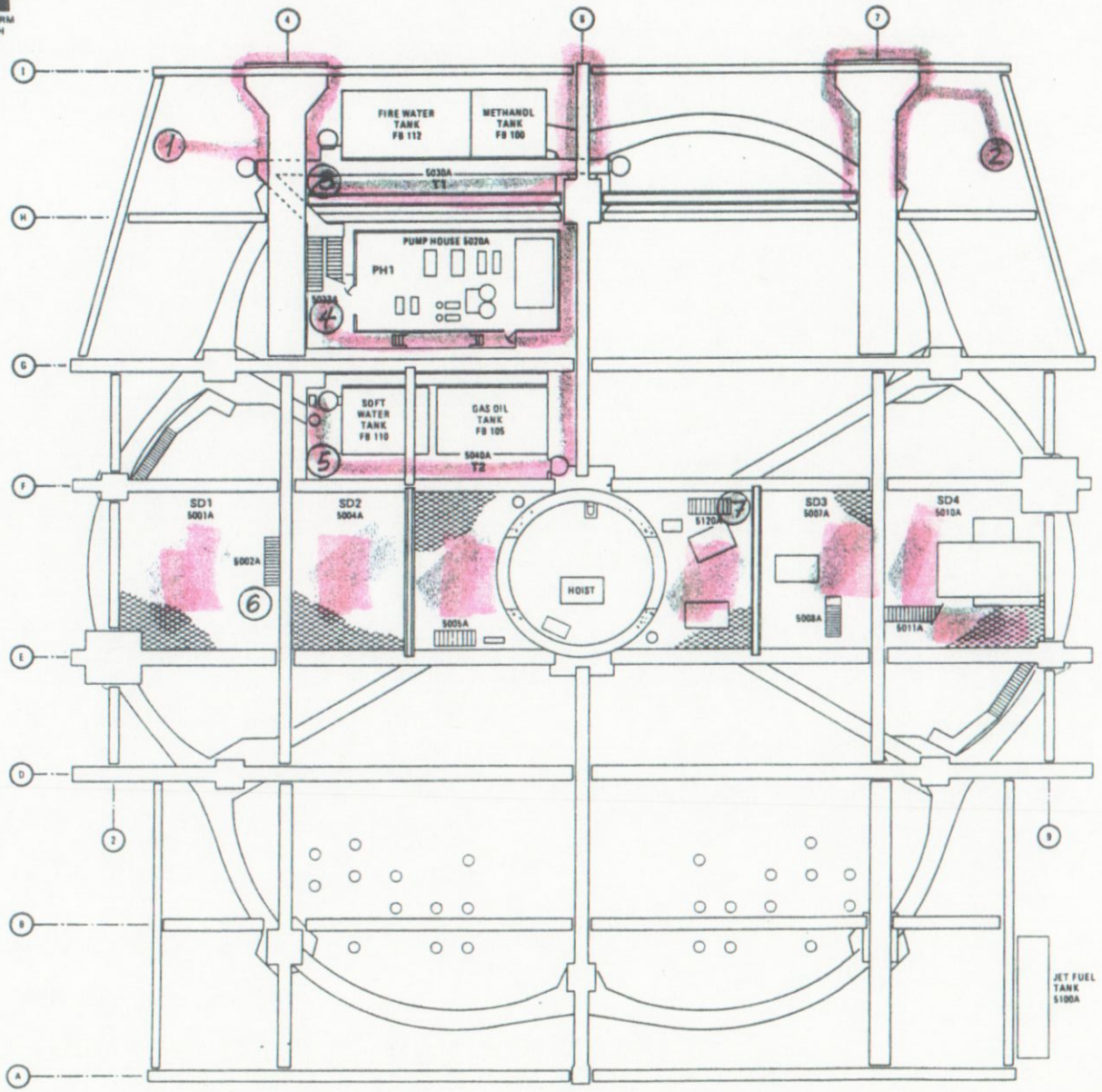
KEY

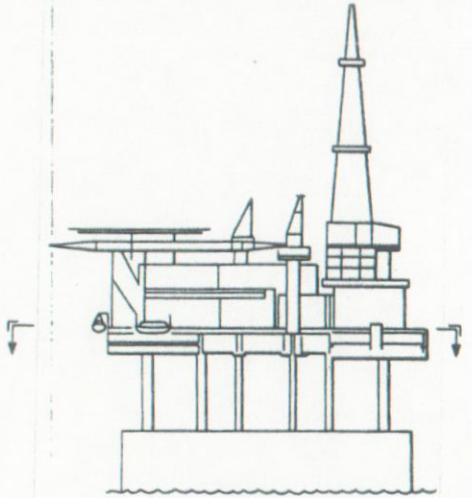
EXAMPLES	
4 E	DORIS BEAM LINE
5061A	ITEM IDENTIFICATION NUMBER

(FIGURE 2 PLAN OF MAIN DECK – EL 130,0)

SKETCH 3

Sketch 5.2.3





1. ACCESS TO INSP. PLATFORMS FOR CANTILEVER SUPPORT POINTS AND MAIN DECK STRUCTURE ITEMS
2.
3.
4. ACCESS TO PUMPROOM LEVEL
5. EMERGENCY LADDER
6. ACCESS TO SERVICE DECKS
7. ACCESS TO BREAK WATER WALL TOP

KEY

EXAMPLES	
4 E	DORIS BEAM LINE
5030A	ITEM IDENTIFICATION NUMBER

ACCESS WAY AND AREA FOR INSPECTION

(FIGURE 1 PLAN OF SERVICE DECK-EL 122,100)

SKETCH 4

Sketch 5.2.4

CDP1 BEFORE START OF DECOMMISSIONING

CDP1 AFTER DECOMMISSIONING

SEEN FROM QP

CDP1 ABANDONED

CDP1 ABANDONED

CDP1

LIFTING OF CONTAINERS BY HELICOPTER

FRIGG FIELD

AFTER CDP1 DECOMMISSIONING