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AWE Proposal for TP1 for the Implementation of the Nuclear Warhead Capability Sustainment Programme

VOLUME 1

ANNEX E

NWCSP Level 2/3 Technical Schedule

[redacted]

Document Title: NWCSP Level 2/3 Technical Schedule

Document Ref: AWE/PLAN/RASe/200447

Version: 10

DOCUMENT APPROVAL

Prepared By	Approved for Issue By
[redacted] Technical Programme Co-ordinator	R Fletcher Head of Corporate Business Planning
Date:	Date:

[redacted]

Contents

Issue Summary

This schedule continues to build on the data presented initially in the NWCSP January 14th Baseline Document [1]. It is compiled in accordance with the System Requirements Document [2] and in accordance with the new WBS [3]. Activities that previously appeared on the schedule have wither been assigned to the appropriate places on the new WBS or have been deleted or reworded to reflect the current situation.

Version No	Date	Reason for Issue
01 (Draft Level 2 only)	11th June 04	Issued for comment and NWCS Presentation 11th June 04
02 (Draft Level 2 only)	9th July 04	Issued for information and review following TPG meeting on 5th July 04
03 (Draft Level 2 only)	29th Sept 04	Issued for information and review following TPG meeting on 24th Aug 04
04 (Draft Level 2 only)	17th Dec 04	Issued for information following the January 2005 deliverability review the corresponding TPG meeting.
05 (Level 3 Yrs 6 to 8 only)	31st March 05	Issued for information following the 4th March TPG meeting and the development of draft Level 3 supporting key outputs from the Programme Element Managers
06	27th July 2005	Issued for information and to support the ongoing planning.
07	28th March 2006	Issued for information and to support the ongoing planning. Presented at the AWE 28th March Baseline Review
07.1	6th April 2006	Plan reference is now AWE/PLAN/RASe/200447 – Version 7.1 after incorporating the changes in stated below
08	7th June 2006	1) In order for the schedule to more accurately reflect the dates of deployment in Procurement Plan 24 [[4] the Level 1 [redacted] have been amended. This realignment does not change the planned [redacted] or the quantities in the manufacturing plan. 2) Level 3 Amendments to the schedule made during the May 2006 baseline review following identification of new interfaces and schedule logic. TS1(M16) -070.10 TS1(F008) -070 — New interface identified to new activity TS1(M16)-70.80 TS1(F038.1) -070 — New interface identified to new activity TS1(M35M) -070.05 TS1(F052.1) -060 — New interface identified to new activity TS1(M35) -060.65 TS3(F052.1) -070 — New interface identified to new activity TS3(M35) -070.10 TP3(F096) -070 — New interface identified to new activity TP3(M11) -070.60 TS3(F038.1) -070 — New interface identified to new activity TS3(M15/M35) -070.70

Version No	Date	Reason for Issue	
		SA1(F008) -050	New interface identified to new activity SA1(M46A) -050.13
		SA1(F096) -050	New interface identified to new activity SA1(M46) -050.85
		SB1(F008) -050	Interface removed
		TP3(F092.2) -080	Interface removed
		SP(F092.2) -050	Interface removed
		SA1(M31) -040.06	Activity removed as it is amalgamated into SA1(M31) -040.06
		SA1(F048) –040	Interface ref. changed to SA1(F048)–050 & linked to new task SA1(M46)-50.11
		SA1(F079) -050	Interface reference changed to
		SA1(F108) -040	New interface identified to new activity SA1(M46) -040.70
		SA1(F073) -050	New interface identified to new activity SA1(M46) -050.12
		SA1(F079.2) -050	New interface identified to new activities SA1(M46) -050.16 & SA1(M46) -050.18
		SA1(M33)-050.04	Renumbered SA1(M31) -050.04 & renamed
		SA1(M46)-050.75	Activity re-named
		SA1(M46)-050.70	Activity re-named
		SA2(M46D)-30.20	Activity re-named
		SA2(M46D)-30.30	Activity removed
		SA2(M46D2C)-30.30	Renumbered SA2(M46D) -040.05
		SA2(M46D2C)-30.50	Renumbered SA2(M46D) -040.50
		SA2(F030) -050	New interface identified to new activity SA1(M46A) -050.13
		SA2(M46D) -050.30	Activity re-named
		SA2(M46D) -050.31	New activity
		SA2(M46D) -050.50	Activity re-named
		SA2(M46D) -050.52	New activity
		SA2(M46D) -050.54	New activity
		SA2(M46D) -050.56	New activity
		SA3(F103 (D2.1)-040	New interface identified to new activity SA3(KE)-025
		SP(F001a) -090	New interface identified to new activity SP(M49) -090.05
		3) Amendments to the schedule made during the May 2006 baseline review following identification of revised facility portfolio completion dates and corresponding impact on the downstream technical activities.	
		[redacted]	Facility completion date moved from [redacted] impacting activities outside the timescale of this schedule and therefore removed as an interface.
		[redacted]	Facility completion date moved from [redacted] causing a ~[redacted] shorting of the downstream technical programme represented by activities SP(M49) -070.40 & TP3(M11) -090.60

Version No	Date	Reason for Issue
		[redacted] Facility completion date moved from [redacted] of the downstream technical programme represented by activities TS1(M16) -070.10 SA1(M46A) -050.10 & TS3(M15) -080.50
		[redacted] Facility completion date moved from [redacted] of the downstream technical programme represented by activities TS1(M15) -060.50, TS3(F010) –070, SA1(M31) -050.04
		[redacted] Facility Phase 2 completion date moved from [redacted] in order to support different activities TS1(M35M) -090.05 & TS3(M15/M35) -080.70 that support outputs later in the technical programme.
		[redacted] Facility Phase 2 completion date moved from [redacted] in order to support different activities TS1(M35)-080.65, TS3(M35)-080.10 & TP1(M11METP)-070.20 that support outputs later in the technical programme..
		[redacted] The scope of this project has changed to incorporate the [redacted] output from project [redacted]
		[redacted] Facility completion date moved from [redacted] of the downstream technical programme represented by activities TS1(M15) -060.70, TS3(M15/M35) -050.70, TP2(M11HEM)-050.30 & SA1(M46) -040.50
		[redacted] Facility completion date moved from [redacted] to provide sufficient [redacted] capability linked to activities TS1(M37) -090.35, TP2(M37) -070.60 & TP2(M37) -070.60
		[redacted] Facility completion date moved from [redacted] of the downstream technical programme represented by activities TS1(M11)-080.75 & SA1(M46)-050.45
		[redacted] Facility completion date moved from [redacted] to comply with new Minor Alterations requirements & Additions to the delivery process linked to activities TP5(M11RBAC) -050.10 & TP6(M11RBAR) -050.10
		[redacted] Facility Phase 2 completion date moved from [redacted] in order to support different activities SA1(F079.2) –050 & SA1(M46) -050.16 that support outputs later in the technical programme.
		[redacted] Facility completion date moved from [redacted] in order to support different activities TP6(M11RBAR) -090.10 & SA1(M46) -050.16 that support outputs later in the technical programme.
		[redacted] Facility completion date moved from [redacted] extending the period for the mitigation work undertaken by this project is required
		[redacted] Facility completion date moved from [redacted] of the downstream technical programme represented by activities TP3(M11) -050.10, TP3(M11) -050.20, TP4(M11) -050.05 & SA1(M46) -030.60
		[redacted] The scope of this project has changed scope transferring the [redacted] output into project [redacted]

Version No	Date	Reason for Issue
		[redacted] Facility completion date moved from [redacted] of the downstream technical programme represented by activities TS1(M15/M35) -090.45, SB2(M47) -050.45 & SP(M49) -060.57
9	15th August 2006	Up-issued in accordance with the requirements of the August 2006 Affordability Review. Updates include: 1) Distribution list amended: [redacted] – Removed [redacted] – Removed [redacted] – Removed (no longer on SA email server) [redacted] – Added (vice [redacted] [redacted] - Added Level 2 Schedule Structure diagram on page 13 re-scaled to A3.
9.1	16th August 2006	Work in progress.
9.2	17th August 2006	1) Amendments to the schedule made during the August 2006 baseline review following identification of revised facility portfolio completion dates and corresponding impact on the downstream technical activities. [redacted] Delivery date changed from [redacted] [redacted] Delivery of the on site [redacted] delayed to [redacted] Off site [redacted] facility will be available in [redacted] [redacted] The deilvery of this facilitiy has moved from [redacted] [redacted] The refurb of this facility has been brought forward from [redacted] [redacted] The delivery of this facility has slipped by 3 months from [redacted] [redacted] This facility has been subsumed by [redacted] [redacted] These projects have been subsumed by [redacted] Requirements). [redacted] This facility has been brought forward from [redacted] [redacted] The sub-projects of [redacted] have been subsumed into one project. [redacted] will be delivered in [redacted] [redacted] The [redacted] Rekit Project has been divided into a rekit and a new build phase. The rekit phase is expected to finish in [redacted] and the new build phase in [redacted] [redacted] The refurb of this facility has been brought forward from [redacted] A new build of the facility is expected in [redacted]

Version No	Date	Reason for Issue
		[redacted] This facility has moved from [redacted] [redacted] This facility has moved from [redacted] [redacted] This facility has moved from [redacted] [redacted] This facility has been subsumed by [redacted] [redacted] [redacted] The [redacted] Facility has moved forward from [redacted] Hydrus is expected by [redacted] [redacted] This facility has moved back from [redacted] [redacted] This facility has moved from [redacted] [redacted] This project has been subsumed by facility 115 ([redacted]). [redacted] This facility has moved from [redacted] [redacted] This is a continuous delivery to [redacted] [redacted] This facility has moved forward from [redacted] [redacted] [redacted] has moved forward from [redacted] [redacted] [redacted] has moved forward from [redacted] [redacted] [redacted] [redacted] has moved from [redacted] 2) Text changes as requested by [redacted] 3) [redacted] date changes as requested by [redacted] 4) Planning Assumptions updated in line with MDAL
9.3	21st September 2006	Work in progress 1) The Technical Schedule has now successfully been imported into the [redacted] Project Planning application and the baseline has been established based upon the dates agreed with the MoD in the August Affordability Review (Version 9.2). The [redacted] model will be used in a number of different ways which previously have been monitored using separate Microsoft Project plans. Progress and programme slippage will be monitored and updated on a monthly basis for internal reporting.

Version No	Date	Reason for Issue
		2) The following activities are now predicted as running late. TS2B-015 [redacted] has a predicted end date of 28th February 2008 resulting in the slippage of the incentivised milestone TS2B-(KE)-015 and TS2B(M16)-015 [redacted] and also influences the following events: finish milestone TS2b-M16)-015.55 [redacted] TS2B-(M16) -020.30 - Preparation for [redacted] (expected 30 Sept 08) TS2B-(KE)-020b - [redacted] TS2B-(M16) -020.15 - [redacted] TS2B-(M16) -020.25 - Prepare [redacted] Specification / Drawings TS2B-(M16) -025.10 - [redacted] Review Reports TS2B-(KE)-025 - [redacted] Review 3) The following facilities are now deemed to be critical to the programme delivery and have been added to the critical activities. Facility 10 ORION High Powered Laser Facility 11 High Powered Computer [redacted] [redacted] New build [redacted] [redacted] Upgrade of [redacted] [redacted] Phase 2 [redacted] Facility [redacted] Facility [redacted] [redacted] [redacted] (and support buildings) Rekit [redacted] Rekitted [redacted] Facility [redacted] Hydrus (Full capability) [redacted] processing/pressing and machining facility [redacted] Rekitted [redacted] production [redacted] Facility Sustainment [redacted] Facility [redacted] facility (refurbishment) [redacted] Refurbishment of [redacted]

Version No	Date	Reason for Issue
		4) Activities contained within the following WBS elements have been removed due to predicted programmatic delay [redacted] These activities will not now be done and CCR is being prepared. [redacted] Approval [redacted] TS.2.a-010-(M15) -010.05 TS.2.a-010-(M15) -010.10 TS.2.a-010-(M15) -010.15 TS.2.a-010-(M15) -010.20 TS.2.a-010-(M15) -010.25 TS.2.a-010-(M15) -(KE)-010 [redacted] Safety & Approval Submissions TS.2.a-020-(M15) -020.10 TS.2.a-020-(M15) -020.10 TS.2.a-020-(KE)-20a
		5) Level of effort hammock added under [redacted] Management for: Facility Operations [redacted]
		6) DSM [redacted] Management Plan realigned according to Programme Manager requirements. [redacted] programme activities deleted.
		7) Corporate Change Note 007 [redacted] approved. Delivery date for [redacted] moved forward to [redacted]
		8) L1 plan updated to reflect true [redacted] Timeline adjusted to reflect only 1 delivery date (2 showing prior to change). Level 1 plan aligned with the new WBS.
		9) Reworded "Issue Summary" (see page 4) item 1 to reflect base documentation is superseded.
		10) This issue is based on MDAL [5], WBS Protocols [3 and IFPT Report [6]; the changes are captured in the report [7]
9.6	18/04/07	1) Formatting changes prior to review submission
10	30/04/07	Reworded 'Issue Summary' (see page 4) in entirety. Update the references (see page 12). Distribution list as per TP1 Requirements.

References

[1] NWCSP January 14th Baseline Document: Ref: AWE/PLAN/RAF/2005/10001

[2] SRD[1] version 2.1, October 06: Ref NWIPT/04/35/01

[3] WBS Protocols Document, issue 5.0 21st November 2006: ref AWE/PLAN/JBM/2006/072

[4] Procurement Plan Vol 24 Trident Warhead Production Requirements Plan 14/6/05 Issue 2: Ref DPA/NW/PGL/101/23/378

[5] Master Data Assumptions List Issue 1.0, 24th April 2007 : ref AWE/PLAN/SWB/2007/011

[6] Integrated Facility Plan: Interim Consultation Report on Facility Development Dec 05 : Ref DMP/IFPT/REP/053/Rev 2

[7] Report of Changes to NWCSP Level 2/3 Technical Schedule Changes (from Issue 9.2): ref AWE/PLAN/SW/2007/027

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016	Don Cook	Managing Director AWE
014	Jason Smith	Director Business Management & Finance
015	Rob Fletcher	Head of Corporate Business Planning

[redacted]

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[redacted]Jupp Andrew[redacted]Landeg Daryl[redacted]

[redacted]

[redacted]Nicholson Graeme[redacted]

[redacted]Sankey Peter[redacted]

[redacted]Tinsley Richard[redacted]

[redacted]

1. Introduction

The Level 2/3 Technical schedule is a model of AWE's business from the present day until the end of Contract Year 25 (31st March 2025) and is now produced using the [redacted]
AWE have recently implemented (and rolled out) a new company wide Work Breakdown Structure. Reference [7] contains the new WBS to level 4. Further breakdown can be seen at page ....

2. [redacted] Layout

The plan has retained the traditional WBS and Schedule Reference (as seen in previous editions of the plan) and has been grouped by the new WBS with the use of a hierarchical activity coding scheme. This submission will retain the previous WBS and Schedule reference for ease of cross reference and will also contain an activity. This plan has been constructed using a stand alone version of [redacted] and the activity id contained within this plan is not linked to the UNITE activity id.

[redacted]

New Nomenclature:

R - [redacted] – R Level 1

R.1 - [redacted] – Level 2

R1.1 – TDP A (R11) – Level 3

R1.1.NP – NPP (R11.NP) – Level 4

Old Nomenclature:

SA1(M46)-050.80

Activity Id

[redacted]

Activities on the schedule have been filtered to show activities occurring within a window of minus 6 months from the current plan data date and plus 25 years from the current data date[1].

3. Level 1 Plan

The level 1 (high level) plan is produced using MS PowerPoint using data drawn from the database. An activity code *'High Level Plan'* has been added to the database to identify activities which appear on the PowerPoint slide. A report has been produced to filter the activities highlighted with the *'High Level Plan'* activity code and has been included with this submission to maintain the audit trail between the data base and the PowerPoint slide.

4. Critical Activities

For the purposes of this document, the term 'Critical Activities' are ones which are determined as being:

scheduled activities (and interdependencies) which have been deemed by key programme stake holders as being potential risks to AWE business and operational delivery and ***not*** *activities which have zero float on the programme.*

A user defined field has been established in the database to identify (and filter) critical activities.

5. Refurbishment Programme

A summary bar in the [redacted] Programme denotes activities outside AWE activities.

[1] The data date with referred to within [redacted] is the current scheduled date. Activities are advanced (and will show progress) to this date.

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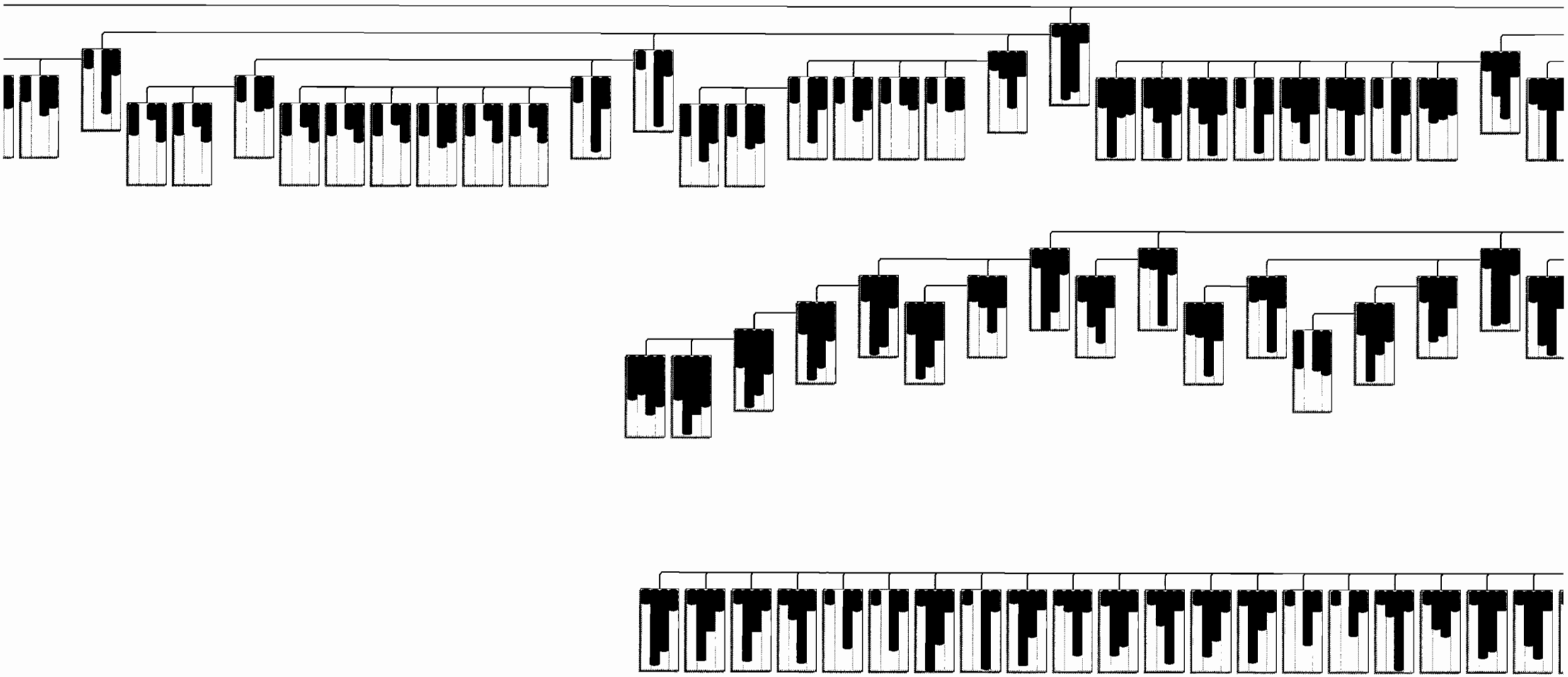
[redacted]



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[redacted]

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Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
Trident					
Trident Output					
Production					
Trident Assembly					
[redacted]		[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]			[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	

[redacted]

Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
[redacted]		[redacted]	[redacted]	[redacted]	[redacted]
	Trident Component Manufacture				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
	Certification & In Service Support				
	[redacted] Review				
	Final Report				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
	Stockpile Assesment				
	Reporting				
	[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
[redacted]					
Major Investment					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

[redacted]

[redacted]

[redacted]

[redacted]

Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]		
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

[redacted]

[redacted]

[redacted]

Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

[redacted]

[redacted]

Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
	[redacted]				
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]					
	[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
	[redacted]				
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]					
[redacted]					
[redacted]					
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	[redacted]	[redacted]	
[redacted]					
[redacted]					
[redacted]		[redacted]	[redacted]	[redacted]	

Level 2/3 Schedule High Level Plan

New WBS - (Based on Issue 5)

WBS Path	Schedule Reference	Activity ID	Activity Name	Finish	New WBS - (Based on Issue 5)
HYDRUS					
ORION					
No New WBS - (Based on Issue 5)					

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[redacted]

Remaining Level of Effort	Remaining Work	Summary
Actual Level of Effort	Critical Remaining Work	
Actual Work	Milestone	

[redacted]

Date	Revision	Checked	Approved
14-Mar-07	Version 9.5 - Work in Progress	[redacted]	
18-Apr-07	Version 9.6 - Submitted for Approval	[redacted]	
24-Apr-07	Version 10.0 - Submitted to Customer	[redacted]	