ANNEX W (WORK BREAKDOWN STRUCTRURE / PROJECT SCHEDULE) to LOGCAP CONTINGENCY SUPPORT PLAN

REFERENCES. See ANNEX N, Appendix 4.

TIME ZONE USED THROUGHOUT THE PLAN. Iraq.

TASK ORGANIZATION. See ANNEX A.

1. **SITUATION.** See Base PLAN.

2. **MISSION.** See Base PLAN.

3. **EXECUTION.** See Base PLAN

4. **SERVICE SUPPORT.** See ANNEX I.

5. **COMMAND AND SIGNAL.**

   a. **Command.** See Base Plan, ANNEX A

   b. **Signal.** See Base Plan, ANNEX H

ACKNOWLEDGE:

(b)(6)
BRS PGM, LOGCAP

OFFICIAL:
(b)(6) BRS D/PGM

APPENDIX 1 – WORK BREAKDOWN STRUCTURE (WBS)
APPENDIX 2 – PROJECT SCHEDULES

Declassified by OUSD Policy on 8 May 08

TYPICAL WORK BREAKDOWN STRUCTURE

Description		Code		Level
A: Overall Summary/Project & By Oilfield:				
Total Project Summary		---		1
Kirkuk Oilfield Summary		01		2
A: Engineering:				
Kirkuk Oilfield GOSP Engineering Summary		01-54E		3
For GOSP BABA of Kirkuk Oilfield/Engineering Summary		01-54-01E		4
For GOSP BABA Piping Engineering Summary		01-54-01E-PI		5
For GOSP BABA Piping Work Packages		01-54-01E-PI-01		6
B: Construction:				
Kirkuk Oilfield GOSP Construction Summary		01-54C		3
For GOSP BABA of Kirkuk Oilfield/Construction Summary		01-54-01C		4
For GOSP BABA Piping Construction Summary		01-54-01PSC#1		5
For GOSP BABA Piping Construction workpackages		01-54-01PSC#1-P1		6
C: Procurement:				
Kirkuk Oilfield GOSP Material Summary		01-54M		3
For GOSP BABA of Kirkuk Oilfield/Materials Summary		01-54-01M		4
For GOSP BABA Piping Material Summary		01-54-01Piping POS		5
For GOSP BABA Piping Material Pos		Detail Pos		6

APPENDIX 2 (PROJECT SCHEDULES) to ANNEX W (WBS / PROJECT SCHEDULES) to LOGCAP CONTINGENCY SUPPORT PLAN

REFERENCES. See ANNEX N, Appendix 4.

TIME ZONE USED THROUGHOUT THE PLAN. Iraq.

TASK ORGANIZATION. See ANNEX A.

1. **SITUATION.** See Base PLAN.

   a. **Assumptions.**

   1) Three separate schedules are prepared for the following cases:

      a) Best case where existing plants are refurbished.

      b) Most probable case for large, medium & small GOSP sizes.

      c) Worst case where all wellheads and plants have been irreparably damaged.

   2) The schedules are based on availability of oilfields as noted below:

      a) Southern Iraq Oilfields: South & North Rumaliah, Az Zubayr & Al Luhays oilfields available within one week from NTP.

      b) Northern Iraq Oilfields after 11 weeks from NTP.

      c) Remaining Southern Oilfields after 15 weeks from NTP.

      d) East Baghdad Oilfield after 18 weeks from NTP.

   3) Soils data for various sites is available from the site files.

   4) For the best case scenario, no damage is present and plants can be started with HCN plant operating staff to the current capacity levels. It is further assumed that the plant can be refurbished to increase capacity to the target level of 3.1 MM BPD.

   5) On most probable case, it is assumed that:

      a) No long lead equipment items are damaged or destroyed.

      b) No piling is damaged and no new piles are required.

   6) On worst case scenario, it is assumed that:

      a) Sites are clear and no site work is required for the plant. Minimum fill or cut is required to level the site.

      b) Unit price subcontractors and blanket purchase orders will be issued to vendors.

      c) Three typical GOSP designs will be performed and adopted for the specific requirements on long lead equipment items. Vendors will be selected during the early EPC planning initiated 30 days prior to the receipt of NTP. (NTP-30 days). Vendors will be released for preparing vendor drawings only.

      d) There are no piling requirements.

      e) For surface blowout wellfires, the deployment of fire teams is divided by North and South oilfields as follows:

(1) Southern Fields, assuming seven days per well:

(a) Five fire teams for first 11 weeks, until Northern fields are available at week eleven based on information provided, then three teams for next nine weeks.

(b) Five fire teams for the following three months

(c) 15 fire teams for the duration of the fires.

(2) Northern Fields, assuming 14 days per well:

(a) Two fire team for nine weeks, after fields become available at week 11.

(b) Five fire teams for the following three months

(c) 10 fire teams for the duration of the fires.

f) For underground blowouts, it is assumed that there are 18 rigs available to work 1.5 months per well in the southern fields and another 18 rigs available to work three months per well in the northern fields.

g) Wellhead repair will take five days per well.

h) Workover repair will take 10 days per well, with six rigs working in the North and 12 rigs operating in the South.

7) Information necessary to execute the project will be declassified shortly after NTP.

8) All sites have been cleared of the following:

a) Landmines or unexploded ordnance.

b) War materials and disabled vehicles.

c) Chemical and biological hazards.

9) All destroyed or facilities which are not planned for repairs will be abandoned in place. No remedial or removal work is included in the schedules.

10) No permits are required from local agencies having jurisdiction over the land and the area where the work is to be carried out.

11) No hindrances or delays associated with Customs clearance.

12) No delay in getting visas or work permits for TCN labor and ex pats.

13) No delay in approving Satellite dishes installation for communication. Also no approval required for handheld radios, mobile phones and other communication means at various sites.

14) Critical equipment and materials will be staged in allied nations close to Iraq prior to the commencement of the field work.

15) Existing roadways and bridges are capable of handling the heavy equipment delivery to site.

16) Advance team and early assessment team's identification and processing will be initiated 30 days before the receipt of NTP. (NTP-30)

17) The schedules are based on 12 hours per day for seven days per week for construction work a and 10 hours per day for six days per week for engineering and procurement work in Houston.

2. **MISSION.** See Base PLAN.

3. **EXECUTION.** See Base PLAN

4. **SERVICE SUPPORT.** See ANNEX I.

5. **COMMAND AND SIGNAL.** See Base Plan, ANNEX A, and ANNEX H.

ACKNOWLEDGE:

(b)(6)
BRS PGM, LOGCAP

OFFICIAL:
(b)(6) BRS D/PGM

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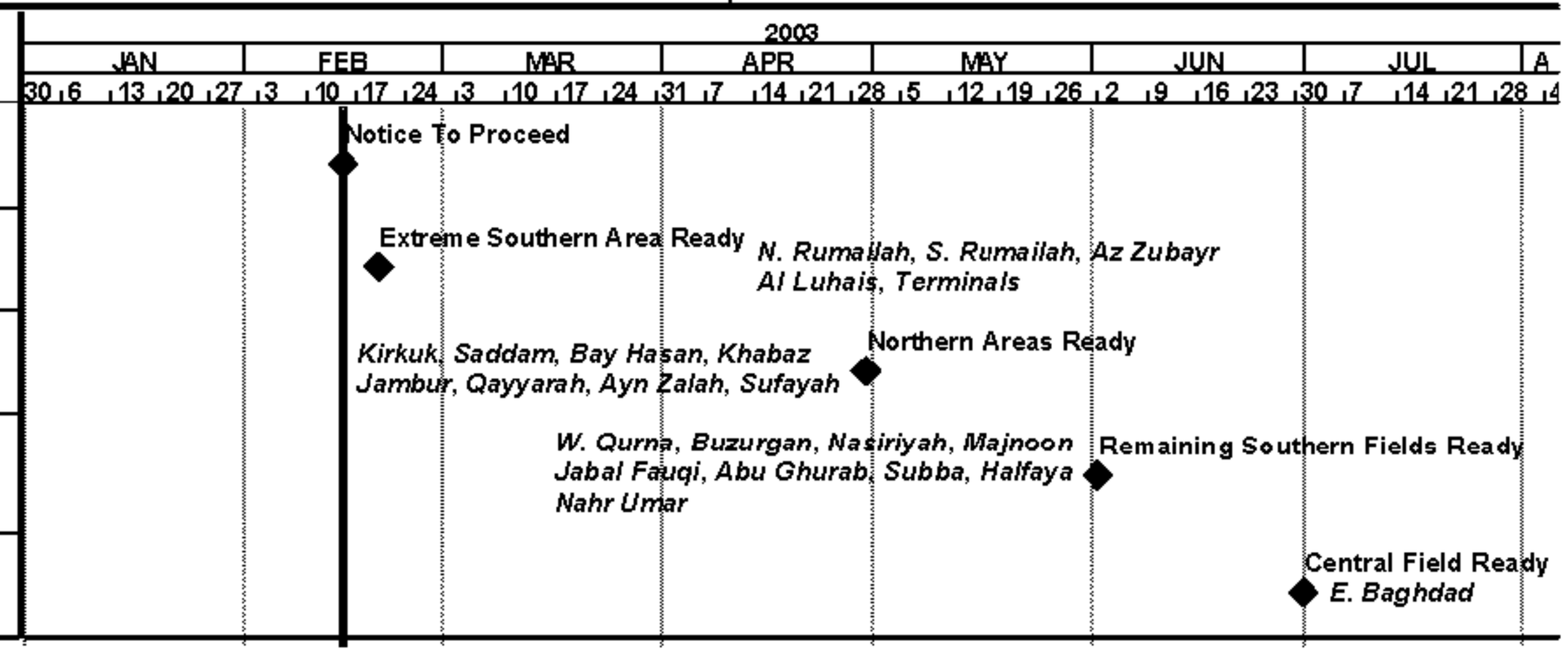
Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish
A10010	Notice To Proceed	0	0	0	15FEB03	
A10020	Extreme Southern Area Ready	0	0	0	20FEB03	
A10030	Northern Areas Ready	0	0	0	30APR03	
A10040	Remaining Southern Fields Ready	0	0	0	02JUN03	
A10050	Central Field Ready	0	0	0	01JUL03	



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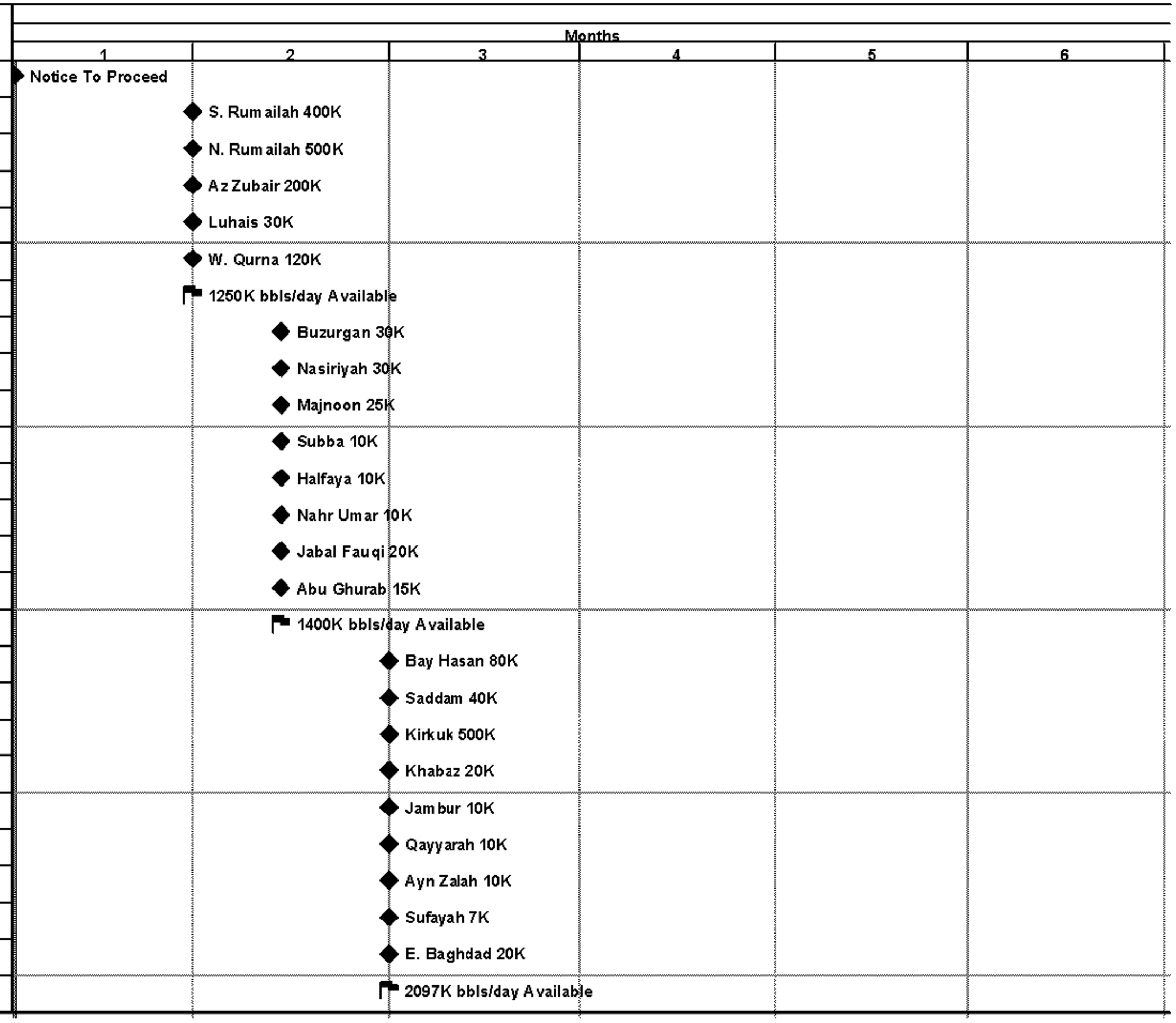
Early Bar
Progress Bar
Critical Activity

Sheet 1 of 1

Worst Case Field Availability

Date	Revision	Checked	Approved

Activity ID	Activity Description	Orig Dur	Early Start
A10010	Notice To Proceed	0	01FEB03
A10020	S. Rumailah 400K	0	01MAR03
A10030	N. Rumailah 500K	0	01MAR03
A10040	Az Zubair 200K	0	01MAR03
A10050	Luhais 30K	0	01MAR03
A10210	W. Qurna 120K	0	01MAR03
A10250	1250K bbls/day Available	0	01MAR03
A10150	Buzurgan 30K	0	15MAR03
A10160	Nasiriyah 30K	0	15MAR03
A10170	Majnoon 25K	0	15MAR03
A10180	Subba 10K	0	15MAR03
A10190	Halfaya 10K	0	15MAR03
A10200	Nahr Umar 10K	0	15MAR03
A10220	Jabal Fauqi 20K	0	15MAR03
A10230	Abu Ghurab 15K	0	15MAR03
A10260	1400K bbls/day Available	0	15MAR03
A10070	Bay Hasan 80K	0	01APR03
A10080	Saddam 40K	0	01APR03
A10090	Kirkuk 500K	0	01APR03
A10100	Khabaz 20K	0	01APR03
A10110	Jambur 10K	0	01APR03
A10120	Qayyarah 10K	0	01APR03
A10130	Ayn Zalah 10K	0	01APR03
A10140	Sufayah 7K	0	01APR03
A10240	E. Baghdad 20K	0	01APR03
A10270	2097K bbls/day Available	0	01APR03



Start Date	01FEB03
Finish Date	
Data Date	01FEB03
Run Date	22JAN03 07:39

Early Bar
Progress Bar
Critical Activity

RUS5

Sheet 1 of 1

Best Case
No Damage
2.0MM BPD]

Date	Revision	Checked	Approved

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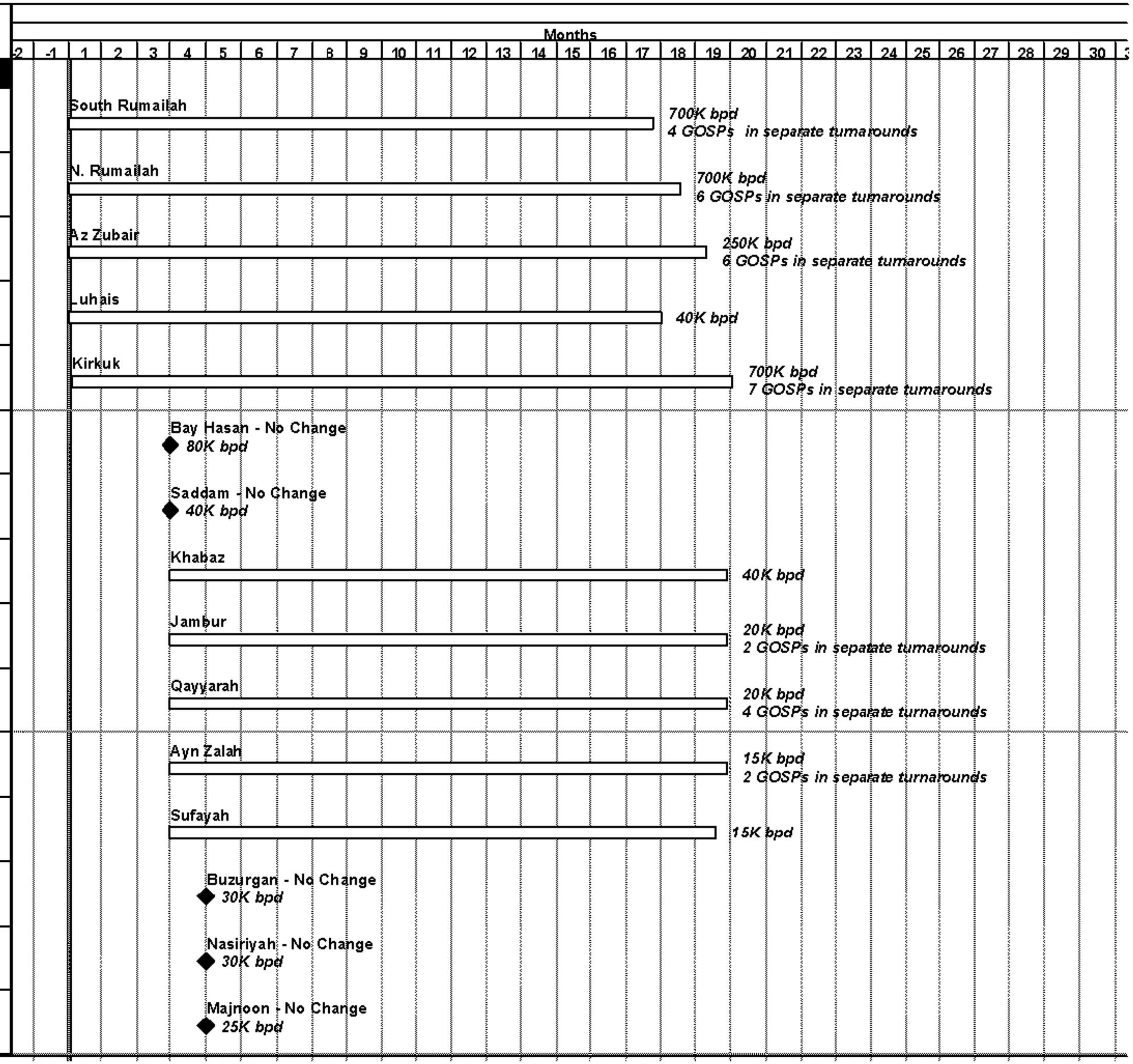
Activity ID	Activity Description	Orig Dur	Early Start
Field Availability			
A10280	South Rumailah	510	01FEB03
A10290	N.Rumailah	534	01FEB03
A10300	Az Zubair	556	01FEB03
A10310	Luhais	517	01FEB03
A10320	Kirkuk	576	04FEB03
A10330	Bay Hasan - No Change	0	01MAY03
A10340	Saddam - No Change	0	01MAY03
A10350	Khabaz	485	01MAY03
A10360	Jambur	485	01MAY03
A10370	Qayyarah	485	01MAY03
A10380	Ayn Zalah	485	01MAY03
A10390	Sufayah	476	01MAY03
A10410	Buzurgan - No Change	0	01JUN03
A10420	Nasiriyah - No Change	0	01JUN03
A10430	Majnoon - No Change	0	01JUN03



Start Date	01FEB03	Early Bar	
Finish Date		Progress Bar	
Data Date	01FEB03	Critical Activity	
Run Date	22JAN03 14:21		

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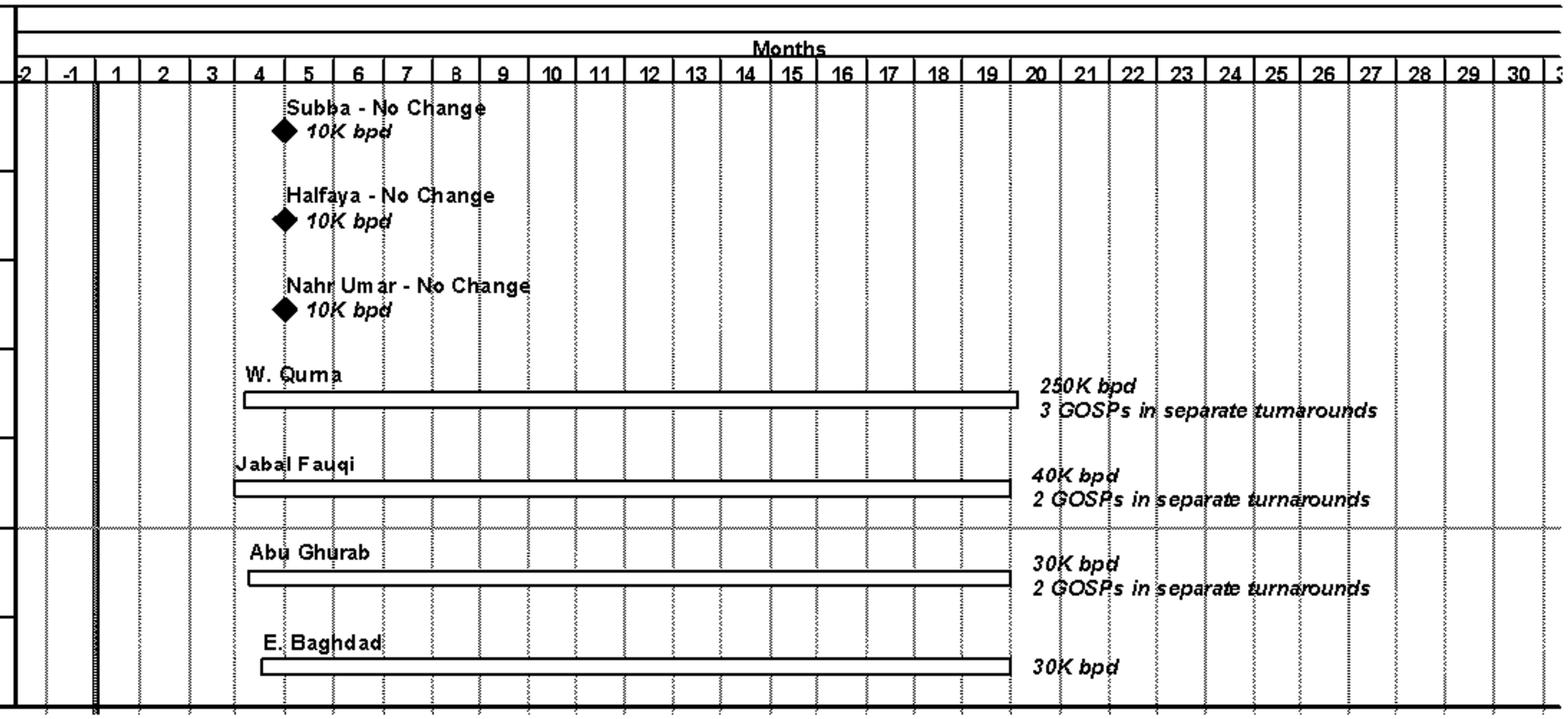
RUS4

Sheet 1 of 2

Best Case
No Damage
Refurbish to 3.1MM BPD]

Date	Revision	Checked	Approved

Activity ID	Activity Description	Orig Dur	Early Start
A10460	Subba - No Change	0	01JUN03
A10470	Halfaya - No Change	0	01JUN03
A10480	Nahr Umar - No Change	0	01JUN03
A10400	W. Qurna	488	06MAY03
A10440	Jabal Fauqi	488	01MAY03
A10450	Abu Ghurab	480	09MAY03
A10490	E. Baghdad	471	18MAY03



Start Date	01FEB03
Finish Date	
Data Date	01FEB03
Run Date	22JAN03 14:21

Early Bar
Progress Bar
Critical Activity

RUS4 Sheet 2 of 2

Best Case
No Damage
Refurbish to 3.1MM BPD]

Date	Revision	Checked	Approved

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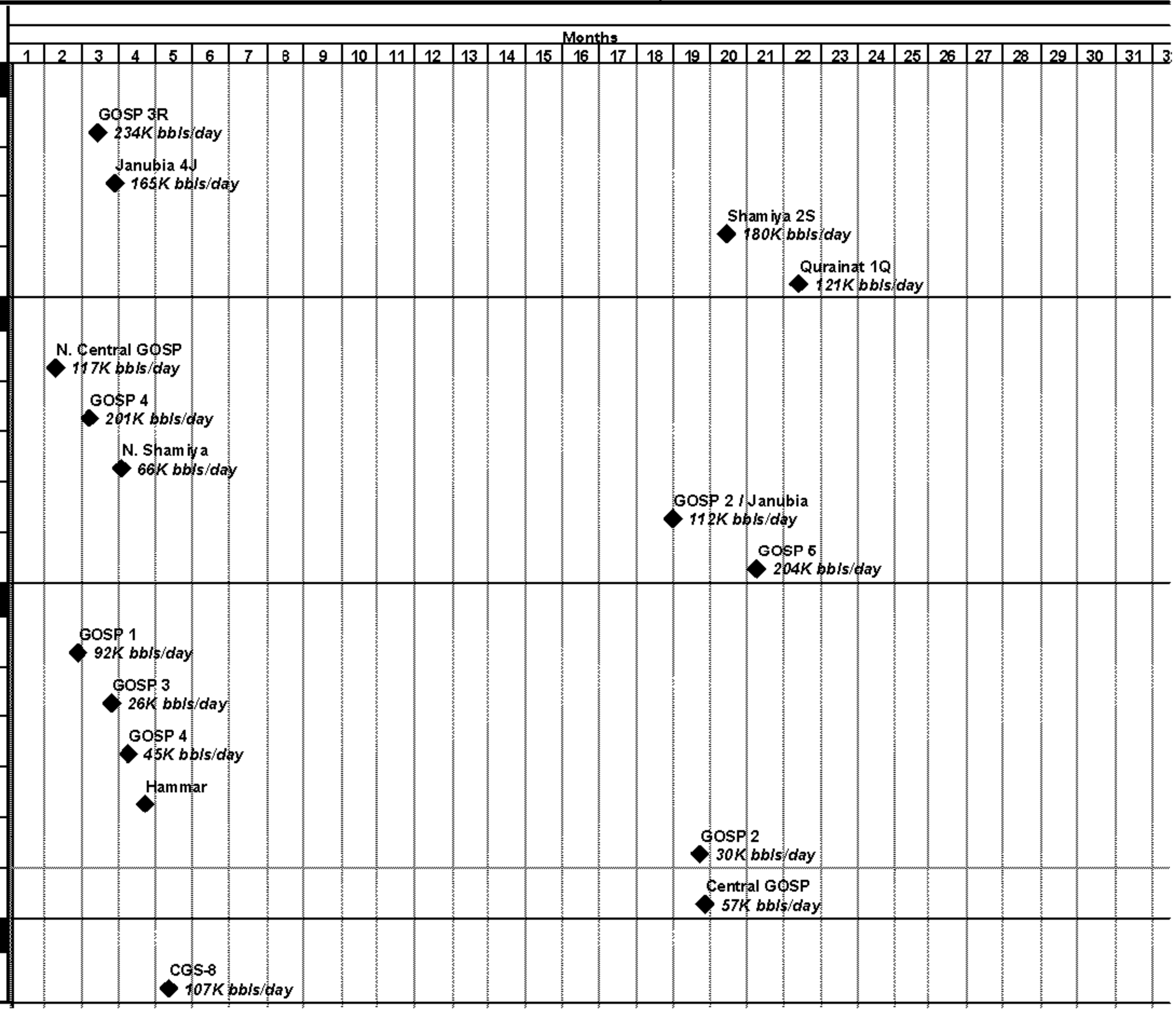
Activity ID	Activity Description	Orig Dur	Early Start
South Rumailah (700K bpd)			
A10030	GOSP 3R	0	14APR03
A10040	Janubia 4J	0	28APR03
A10020	Shamiya 2S	0	14SEP04
A10010	Qurainat 1Q	0	13NOV04
North Rumailah (700K bpd)			
A10050	N. Central GOSP	0	10MAR03
A10070	GOSP 4	0	07APR03
A10090	N. Shamiya	0	04MAY03
A10060	GOSP 2 / Janubia	0	01AUG04
A10080	GOSP 5	0	10OCT04
Az Zubair (250K bpd)			
A10110	GOSP 1	0	28MAR03
A10130	GOSP 3	0	25APR03
A10140	GOSP 4	0	09MAY03
A10150	Hammar	0	23MAY03
A10120	GOSP 2	0	24AUG04
A10100	Central GOSP	0	28AUG04
West Qurna (250K bpd)			
A10180	CGS-8	0	11JUN03



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Early Bar
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Critical Activity

RUS6

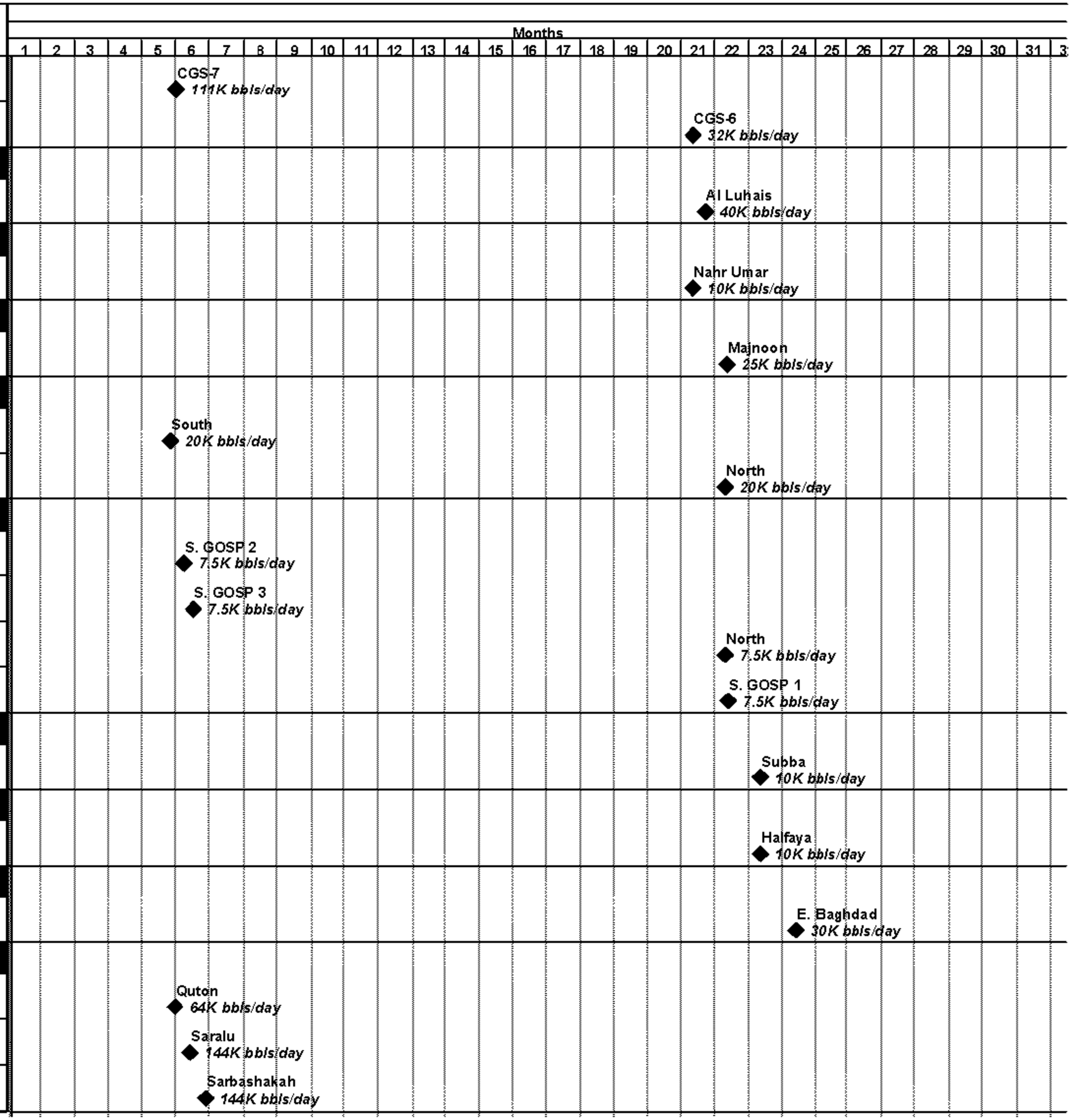
Sheet 1 of 4

GOSP Availability

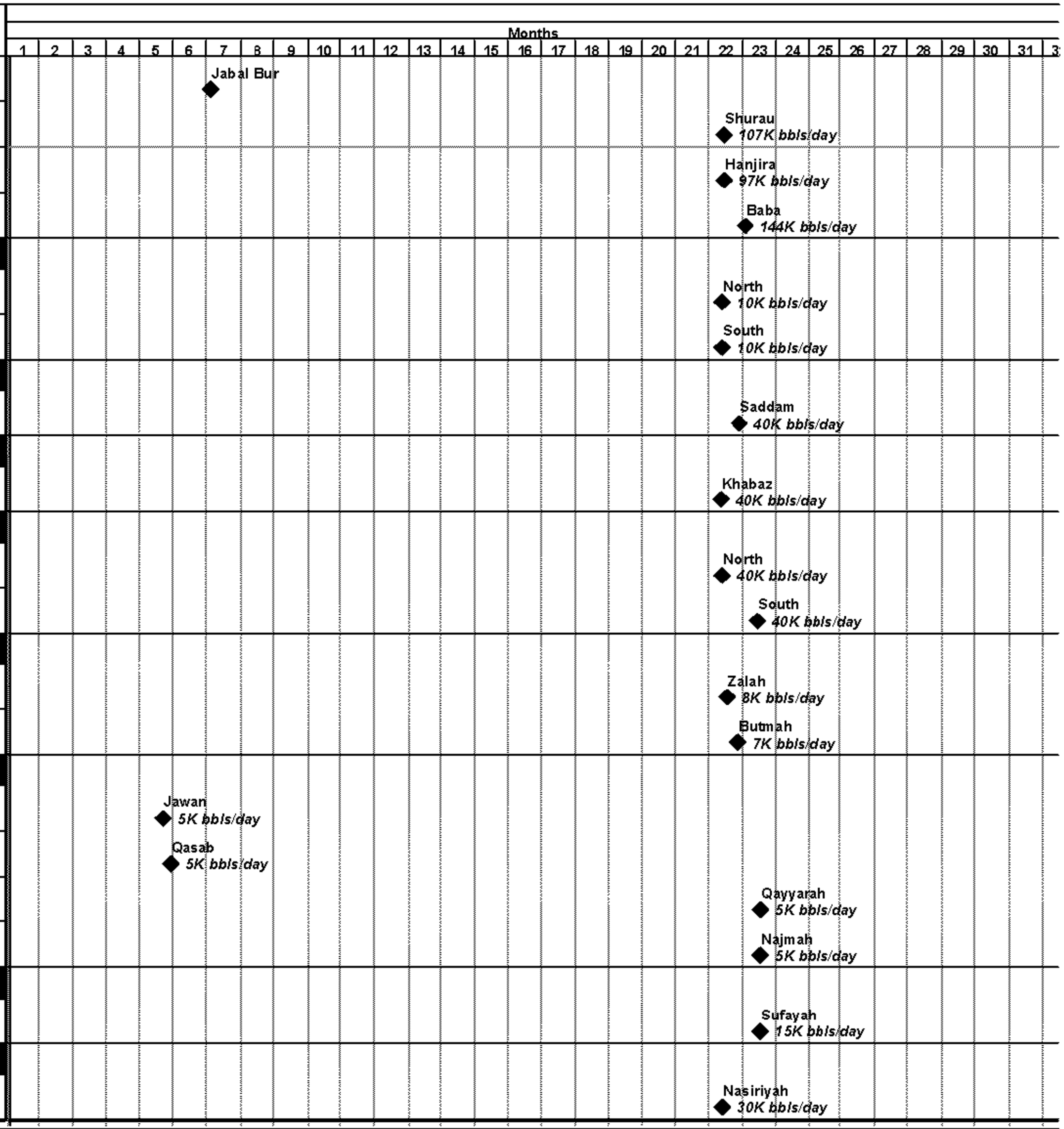
Most Probable Case Schedule

Date	Revision	Checked	Approved

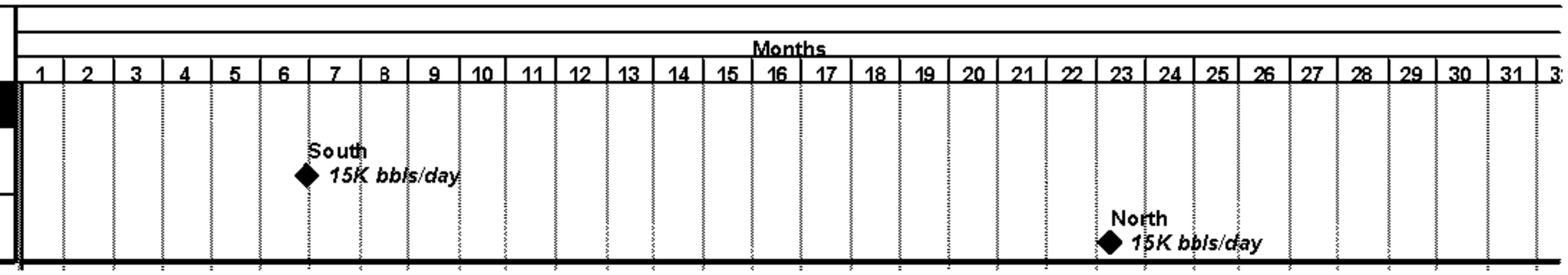
Activity ID	Activity Description	Orig Dur	Early Start
A10170	CGS-7	0	02JUL03
A10160	CGS-6	0	12OCT04
Al Luhais (40K bpd)			
A10190	Al Luhais	0	24OCT04
Nahr Umar (10K bpd)			
A10200	Nahr Umar	0	13OCT04
Majnoon (25K bpd)			
A10210	Majnoon	0	12NOV04
Jabal Fauqi (40K bpd)			
A10230	South	0	27JUN03
A10220	North	0	11NOV04
Buzurgan (30K bpd)			
A10260	S.GOSP 2	0	10JUL03
A10270	S.GOSP 3	0	17JUL03
A10240	North	0	11NOV04
A10250	S.GOSP 1	0	14NOV04
Subba (10K bpd)			
A10280	Subba	0	13DEC04
Halfaya (10K bpd)			
A10290	Halfaya	0	12DEC04
E. Baghdad (30K bpd)			
A10530	E.Baghdad	0	14JAN05
Kirkuk (700K bpd)			
A10360	Qutoon	0	01JUL03
A10370	Saralu	0	15JUL03
A10380	Sarbashakah	0	29JUL03



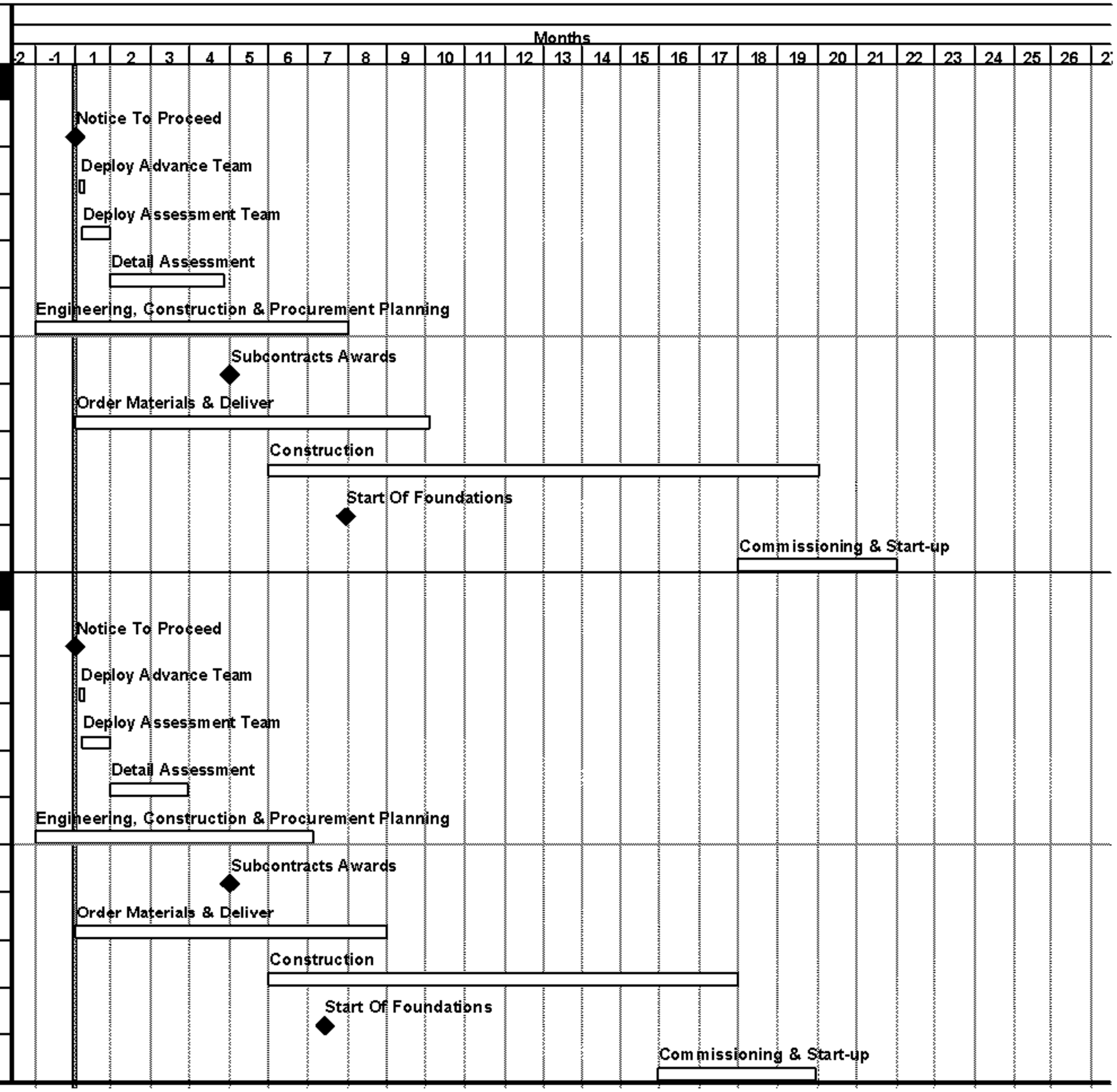
Activity ID	Activity Description	Orig Dur	Early Start
A10390	Jabal Bur	0	05AUG03
A10340	Shurau	0	15NOV04
A10350	Hanjira	0	15NOV04
A10330	Baba	0	04DEC04
Jambur (20K bpd)			
A10400	North	0	13NOV04
A10410	South	0	13NOV04
Saddam (40K bpd)			
A10420	Saddam	0	29NOV04
Khabaz (40K bpd)			
A10430	Khabaz	0	12NOV04
Bay Hasan (80K bpd)			
A10440	North	0	14NOV04
A10450	South	0	16DEC04
Ayn Zalah (15K bpd)			
A10460	Zalah	0	17NOV04
A10470	Butmah	0	27NOV04
Qayyarah Group (20K bpd)			
A10500	Jawan	0	23JUN03
A10510	Qasab	0	30JUN03
A10480	Qayyarah	0	18DEC04
A10490	Najmah	0	18DEC04
Sufayah (15K bpd)			
A10520	Sufayah	0	18DEC04
Nasiriyah (30K bpd)			
A10300	Nasiriyah	0	14NOV04



Activity ID	Activity Description	Orig Dur	Early Start
Abu Ghurab (30K bpd)			
A10320	South	0	30JUL03
A10310	North	0	10DEC04



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
Typical Large Field (GOSP Capacity 150,000 bpd)				
A10010	Notice To Proceed	0	01FEB03*	
A10020	Deploy Advance Team	3	05FEB03*	07FEB03
A10030	Deploy Assessment Team	21	07FEB03*	27FEB03
A10035	Detail Assessment	90	28FEB03*	28MAY03
A10040	Engineering, Construction & Procurement Planning	243	01JAN03*	31AUG03
A10050	Subcontracts Awards	0	01JUN03*	
A10060	Order Materials & Deliver	275	01FEB03*	02NOV03
A10070	Construction	429	01JUL03*	01SEP04
A10080	Start Of Foundations	0	31AUG03*	
A10090	Commissioning & Start-up	123	01JUL04*	31OCT04
Typical Medium Field (GOSP Capacity 50,000 bpd)				
A10100	Notice To Proceed	0	01FEB03*	
A10110	Deploy Advance Team	3	05FEB03*	07FEB03
A10120	Deploy Assessment Team	21	07FEB03*	27FEB03
A10125	Detail Assessment	60	28FEB03*	28APR03
A10130	Engineering, Construction & Procurement Planning	216	01JAN03*	04AUG03
A10140	Subcontracts Awards	0	01JUN03*	
A10150	Order Materials & Deliver	249	01FEB03*	01OCT03
A10160	Construction	367	01JUL03*	01JUL04
A10170	Start Of Foundations	0	15AUG03*	
A10180	Commissioning & Start-up	123	30APR04*	30AUG04



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Early Bar
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Critical Activity

RUS1

Sheet 1 of 2

Most Probable Case
Typical GOSP Rebuild

Date	Revision	Checked	Approved

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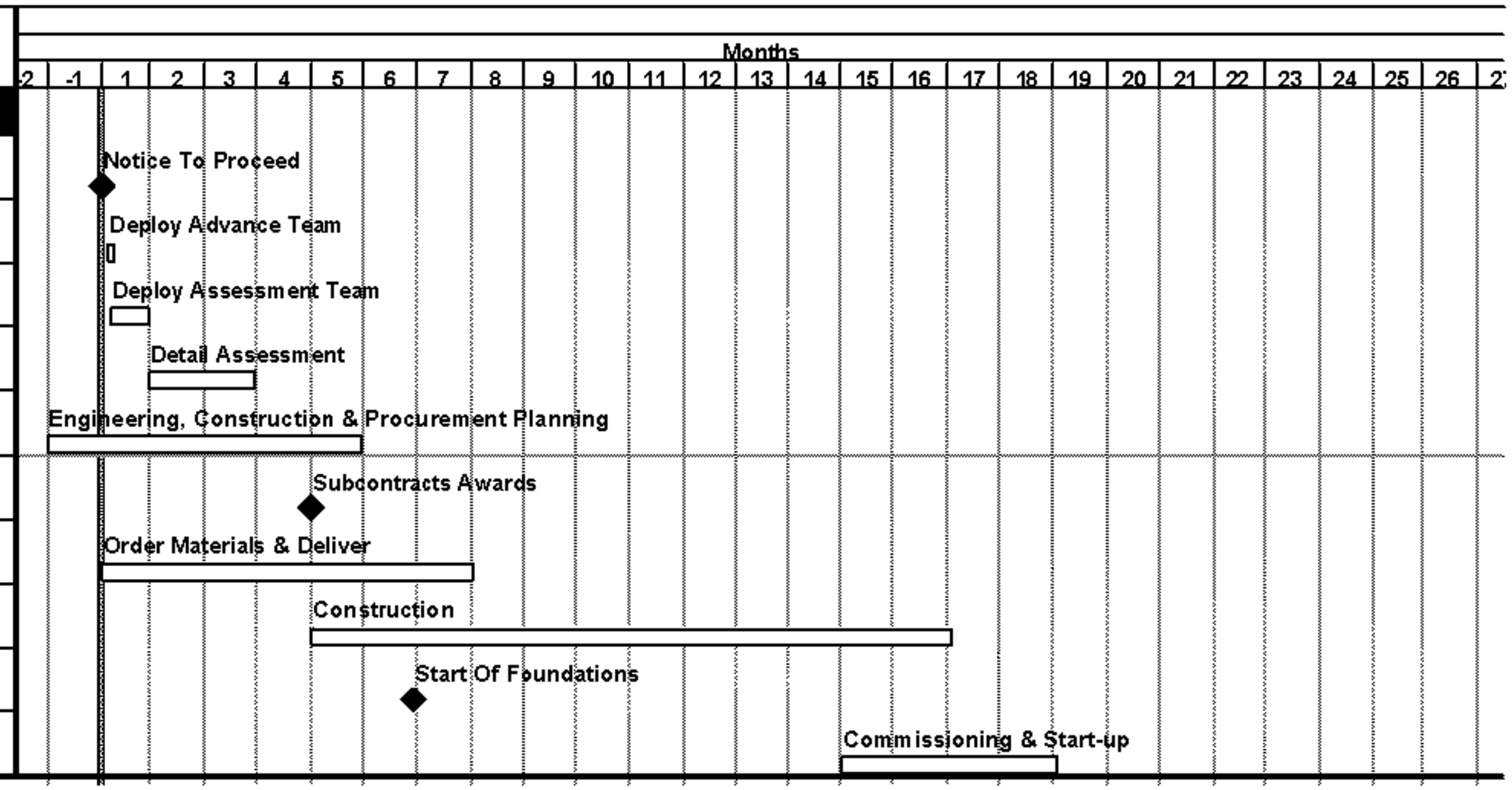
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
Typical Small Field (GOSP Cap. L/T 50,000 bpd)				
A10190	Notice To Proceed	0	01FEB03*	
A10200	Deploy Advance Team	3	05FEB03*	07FEB03
A10210	Deploy Assessment Team	21	07FEB03*	27FEB03
A10215	Detail Assessment	60	28FEB03	28APR03
A10220	Engineering, Construction & Procurement Planning	180	01JAN03	29JUN03
A10230	Subcontracts Awards	0	01JUN03	
A10240	Order Materials & Deliver	213	01FEB03	01SEP03
A10250	Construction	389	01JUN03	03JUN04
A10260	Start Of Foundations	0	30JUL03	
A10270	Commissioning & Start-up	123	02APR04	02AUG04



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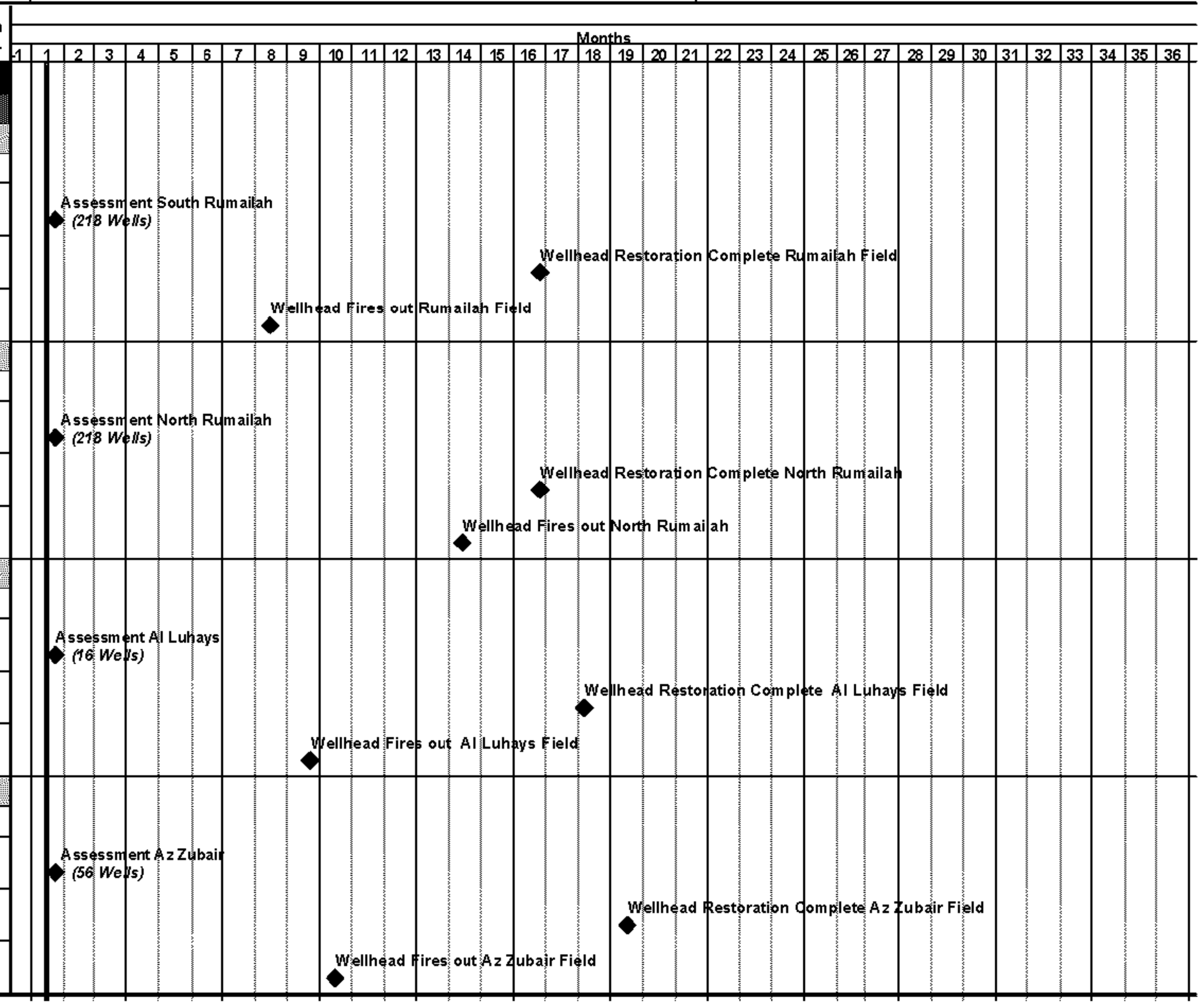
Activity ID	Activity Description	Orig Dur	Rem Dur
Region #1 South			
Wellhead Team #19A			
South Rumailah (700K bpd)			
A40100	Assessment South Rumailah	0	0
A40109	Wellhead Restoration Complete Rumailah Field	0	0
A40119	Wellhead Fires out Rumailah Field	0	0
Wellhead Team #19B			
North Rumailah (700K bpd)			
A40200	Assessment North Rumailah	0	0
A40209	Wellhead Restoration Complete North Rumailah	0	0
A40219	Wellhead Fires out North Rumailah	0	0
Wellhead Team #19C			
Al Luhais (40K bpd)			
A40300	Assessment Al Luhays	0	0
A40309	Wellhead Restoration Complete Al Luhays Field	0	0
A40319	Wellhead Fires out Al Luhays Field	0	0
Wellhead Team #19D			
Az Zubayr (250K bpd)			
A40400	Assessment Az Zubair	0	0
A40409	Wellhead Restoration Complete Az Zubair Field	0	0
A40419	Wellhead Fires out Az Zubair Field	0	0



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Early Bar
Progress Bar
Critical Activity

DEP3

EPC Project Schedule
Worst Case Deployment Schedule
Task Order 31

Date	Revision	Checked	Approved

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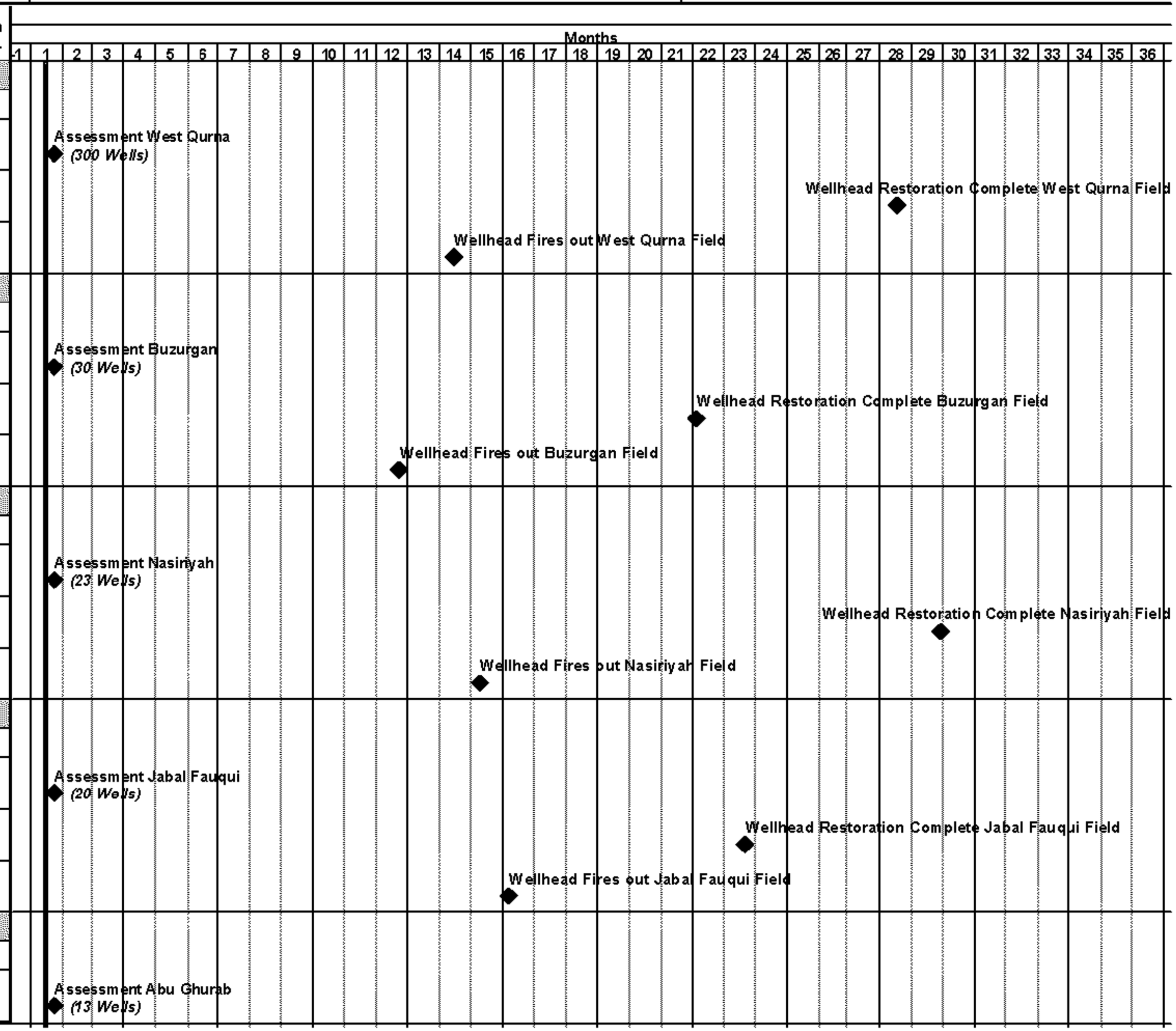
Activity ID	Activity Description	Orig Dur	Rem Dur
Wellhead Team #21A			
West Qurna (250K bpd)			
A40600	Assessment West Qurna	0	0
A40609	Wellhead Restoration Complete West Qurna Field	0	0
A40619	Wellhead Fires out West Qurna Field	0	0
Wellhead Team #21B			
Buzurgan (30K bpd)			
A40600	Assessment Buzurgan	0	0
A40609	Wellhead Restoration Complete Buzurgan Field	0	0
A40619	Wellhead Fires out Buzurgan Field	0	0
Wellhead Team #21C			
Nasriyah (30K bpd)			
A40700	Assessment Nasiriyah	0	0
A40709	Wellhead Restoration Complete Nasiriyah Field	0	0
A40719	Wellhead Fires out Nasiriyah Field	0	0
Wellhead Team #21D			
Jabal Faugi (40K bpd)			
A40800	Assessment Jabal Fauqui	0	0
A40809	Wellhead Restoration Complete Jabal Fauqui Field	0	0
A40819	Wellhead Fires out Jabal Fauqui Field	0	0
Wellhead Team #21E			
Abu Ghurab (30K bpd)			
A40900	Assessment Abu Ghurab	0	0



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Early Bar
Progress Bar
Critical Activity

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EPC Project Schedule
Worst Case Deployment Schedule
Task Order 31

Date	Revision	Checked	Approved

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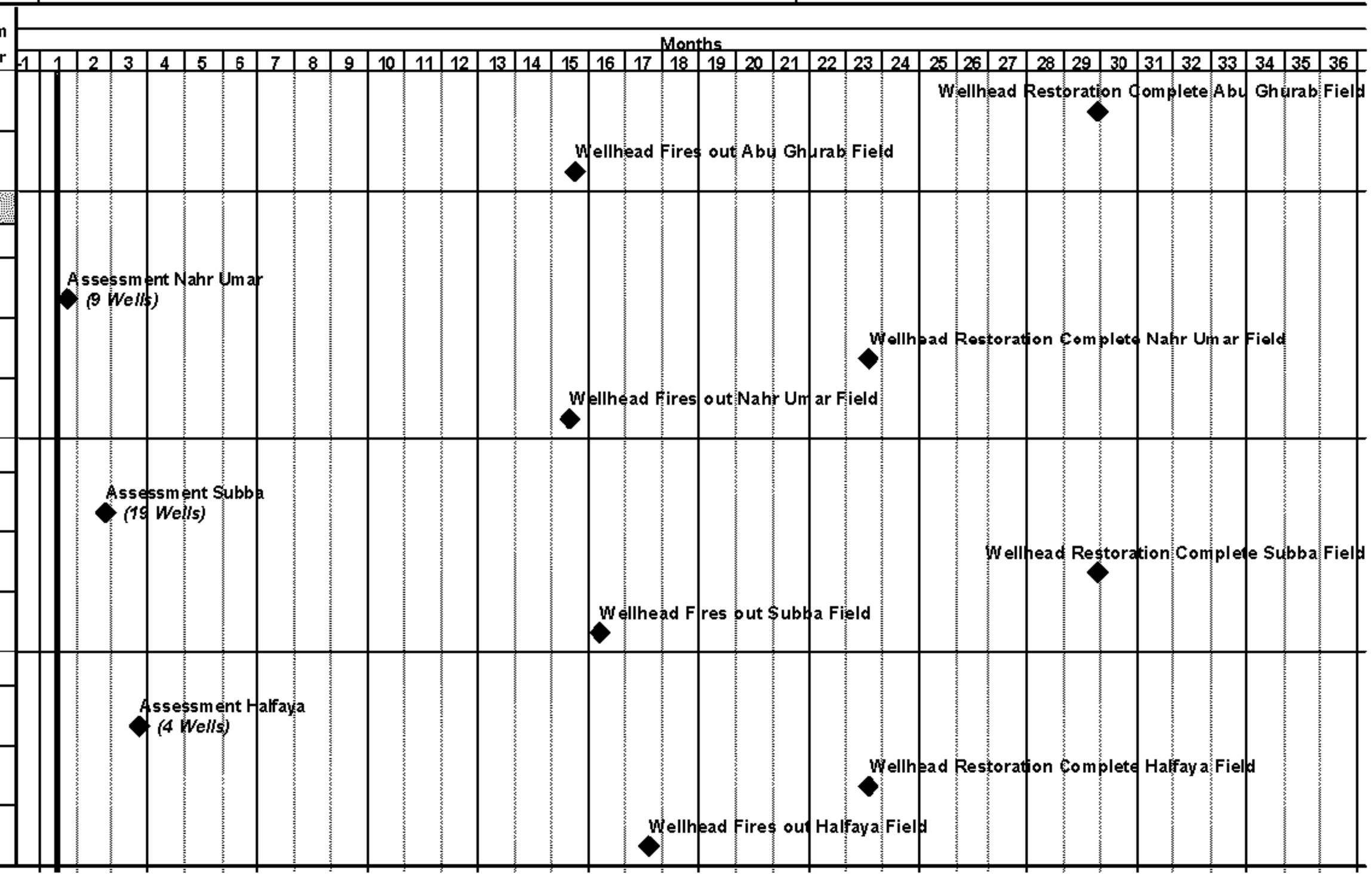
Activity ID	Activity Description	Orig Dur	Rem Dur
A40909	Wellhead Restoration Complete Abu Ghurab Field	0	0
A40919	Wellhead Fires out Abu Ghurab Field	0	0
Wellhead Team #21F			
Nahr Umar (10K bpd)			
A41300	Assessment Nahr Umar	0	0
A41309	Wellhead Restoration Complete Nahr Umar Field	0	0
A41319	Wellhead Fires out Nahr Umar Field	0	0
Subba (10K bpd)			
A41100	Assessment Subba	0	0
A41109	Wellhead Restoration Complete Subba Field	0	0
A41119	Wellhead Fires out Subba Field	0	0
Halfaya (10K bpd)			
A41200	Assessment Halfaya	0	0
A41209	Wellhead Restoration Complete Halfaya Field	0	0
A41219	Wellhead Fires out Halfaya Field	0	0



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Early Bar
Progress Bar
Critical Activity

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Sheet 3 of 6

EPC Project Schedule
Worst Case Deployment Schedule
Task Order 31

Date	Revision	Checked	Approved

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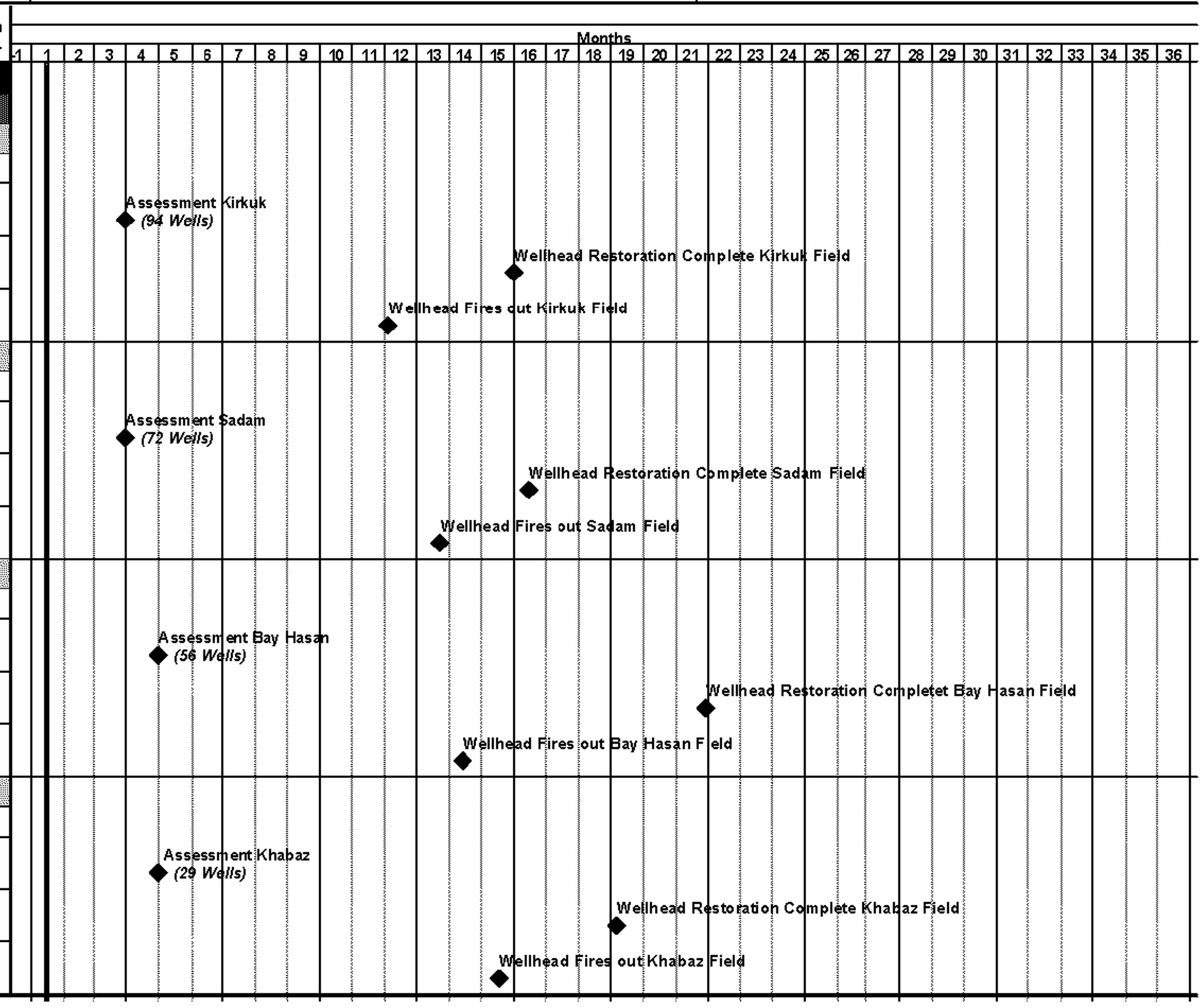
Activity ID	Activity Description	Orig Dur	Rem Dur
Region #2 North			
Wellhead Team #20A			
Kirkuk (700K bpd)			
A41500	Assessment Kirkuk	0	0
A41509	Wellhead Restoration Complete Kirkuk Field	0	0
A41519	Wellhead Fires out Kirkuk Field	0	0
Wellhead Team #20B			
Saddam (40K bpd)			
A41600	Assessment Sadam	0	0
A41609	Wellhead Restoration Complete Sadam Field	0	0
A41619	Wellhead Fires out Sadam Field	0	0
Wellhead Team #20C			
Bay Hasan (80K bpd)			
A41700	Assessment Bay Hasan	0	0
A41709	Wellhead Restoration Completet Bay Hasan Field	0	0
A41719	Wellhead Fires out Bay Hasan Field	0	0
Wellhead Team #20D			
Khabbaz (40K bpd)			
A41800	Assessment Khabaz	0	0
A41809	Wellhead Restoration Complete Khabaz Field	0	0
A41819	Wellhead Fires out Khabaz Field	0	0



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Early Bar
Progress Bar
Critical Activity

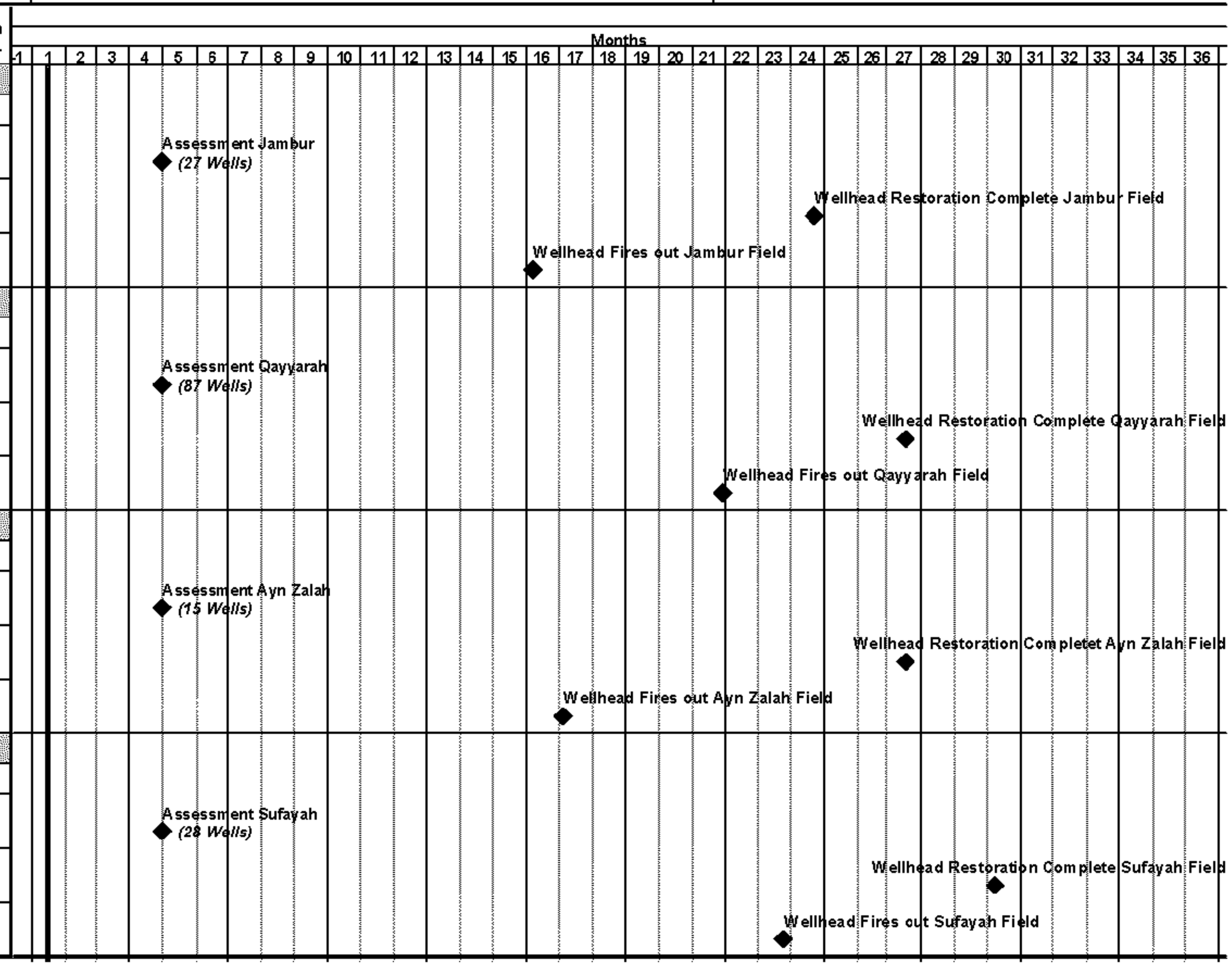
DEP3

EPC Project Schedule
Worst Case Deployment Schedule
Task Order 31

Date	Revision	Checked	Approved

SECRET

Activity ID	Activity Description	Orig Dur	Rem Dur
Wellhead Team #20E			
Jambur (20K bpd)			
A41900	Assessment Jambur	0	0
A41909	Wellhead Restoration Complete Jambur Field	0	0
A41919	Wellhead Fires out Jambur Field	0	0
Wellhead Team #20F			
Qayyarah Group (20K bpd)			
A42100	Assessment Qayyarah	0	0
A42109	Wellhead Restoration Complete Qayyarah Field	0	0
A42119	Wellhead Fires out Qayyarah Field	0	0
Wellhead Team #20G			
Ayn Zalah (15K bpd)			
A42200	Assessment Ayn Zalah	0	0
A42209	Wellhead Restoration Completet Ayn Zalah Field	0	0
A42219	Wellhead Fires out Ayn Zalah Field	0	0
Wellhead Team #20H			
Sufayah (15K bpd)			
A42300	Assessment Sufayah	0	0
A42309	Wellhead Restoration Complete Sufayah Field	0	0
A42319	Wellhead Fires out Sufayah Field	0	0



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Progress Bar
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Sheet 5 of 6

EPC Project Schedule
Worst Case Deployment Schedule
Task Order 31

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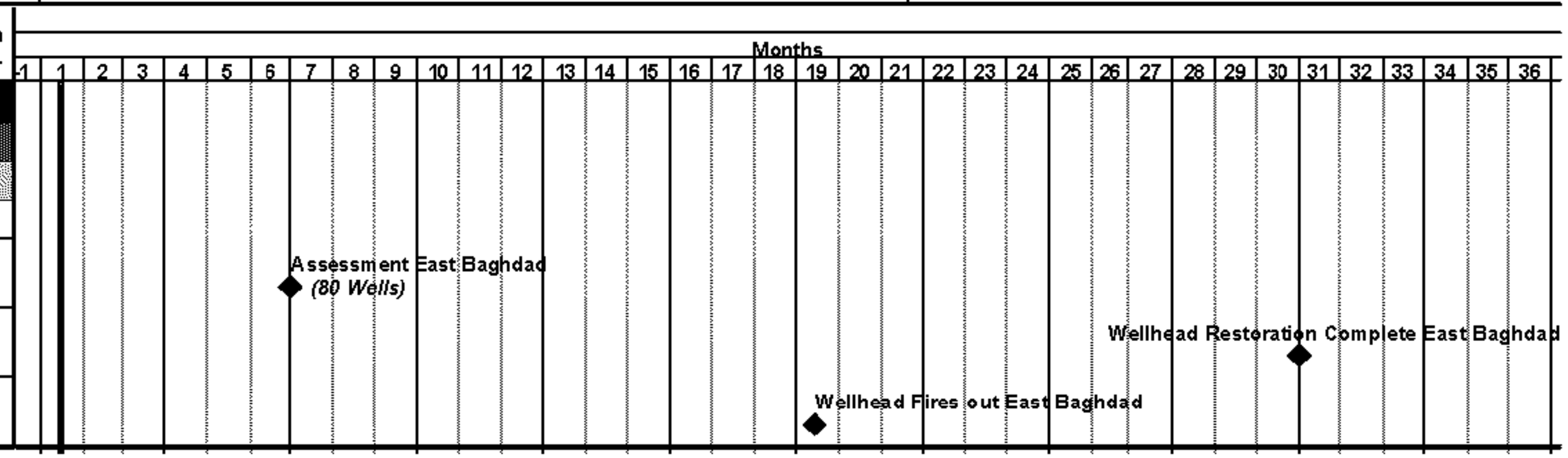
SECRET

Activity ID	Activity Description	Orig Dur	Rem Dur
Region #3 Central			
Wellhead Team 22			
E. Baghdad (30K bpd)			
A42400	Assessment East Baghdad	0	0
A42409	Wellhead Restoration Complete East Baghdad	0	0
A42419	Wellhead Fires out East Baghdad	0	0



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Progress Bar
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DEP3

Sheet 6 of 6

EPC Project Schedule
Worst Case Deployment Schedule
Task Order 31

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