

**AGL PETROLEUM  
WORKOVER PROGRAMME  
EAST MERKENIE NO. 11**

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**PREPARED BY:**

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December 1990

EAST MEREENIE NO. 11WORKOVER PROGRAMME1.0 WELL HISTORY

East Mereenie No. 11 is located in Oil Lease 5. The well was drilled in October 1983 and was completed over the P3-130 interval in March 1987. The well was placed on production as an oil producer.

A stimulation treatment was undertaken in November 1990 in an attempt to reduce wellbore damage using the "radial frac" method. Upon detonation, the logging tools shot up the tubing string, parted the wireline and got caught up in the tubing. Attempts to fish the wireline were unsuccessful. The current well status is that East Mereenie No. 11 cannot produce oil through the obstruction, and hence is shut-in pending a workover.

2.0 PURPOSE OF WORKOVER

The purpose of the workover is to :

- (1) remove the tubing string
- (2) recover the downhole logging tools
- (3) replace any damaged downhole equipment with new equipment
- (4) re-run the production string
- (5) re-establish oil production

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**3.0 PROGRAMME**

- 3.1 Fill tanks with weathered crude oil 4 days prior to rig mobilisation. Ensure oil is dead.
- 3.2 Move in and rig up ATCO Workover Rig.
- 3.3 Rig up kill lines and pump weathered crude oil down annulus. Fill up hole. Fill up tubing with oil. Ensure well is completely dead.
- 3.4 Remove wellhead and nipple up and function test BOP's.
- 3.5 Prepare to unseat Otis RH-Packer. (Refer to attached literature for retrieval instructions)
- 3.6 Pull packer. Allow well to equalise, then POOH 2-3/8" tubing string complete with Otis RH-Packer. Tally tubing on way out.
- 3.7 RIH bit and scraper on 2-3/8" tubing to 4850 ft KB and circulate bottoms up. POOH. Monitor returns on surface for debris. Circulate well clean.
- 3.8 RIH. Bottom hole assembly (refer attached diagram). Drift and tally 2-3/8" tubing. Rabbit tubing while RIH. Land tubing in hanger.
- 3.9 Remove BOP's and install wellhead.
- 3.10 Drop ball down tubing. Pressure up tubing to 2000 psi to set Otis RH Hydraulic Packer.
- 3.11 Pressure up annulus to 1200 psi for 10 minutes. Ensure packer is holding.
- 3.12 Swab well on or go to step 3.14.
- 3.13 Release rig.

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- 3.14 Rig up wireline and open sliding sleeve.
- 3.15 Pressure up annulus and displace fluid through sliding sleeve.
- 3.16 Initiate production using gas lift.
- 3.17 Release rig.

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**4.0 MATERIAL LIST**

- 4.1 100 bbl weathered crude oil
- 4.2 40 joints new J55 2-3/8" EUE tubing
- 4.3 Otis 5-1/2" RH hydraulic set packer
- 4.4 Otis 2-3/8" EUE X-0 sliding side door 1.87" profile (closed)
- 4.5 Otis 1.79" profile XN-nipple
- 4.6 Otis ball catcher sub
- 4.7 4-3/4" bit
- 4.8 5-1/2" casing scraper
- 4.9 Assorted 2-3/8" EUE pup joints, 1 x 10', 3 x 6'
- 4.10 2-3/8" EUE swab cups

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5.0 CURRENT WELL STATUS

WELL NAME : East Mereenie No. 11

WELL TYPE : Shut-in oil well

ELEVATION : 2330.8 ft GL  
2349.0 ft KB

T.D. : 4853 ft KB

P.B.T.D. : 4850 ft KB

WELLHEAD : McEvoy 3000, Master Valve 2" x 3000  
psi screwed gate valves, 2" x 2000  
psi screwed

Casing :

15" 50 lb/ft @ 177 ft KB

10-3/4" 40.5 lb/ft @ 2275 ft KB

8-5/8" 32 & 36 lb/ft @ 2462 ft KB

5-1/2" 14 lb/ft @ 4850 ft KB

Tubing

	FT	FT KB
KB to tubing hanger	:	
Tubing hanger	0.62	17.02
144 JTS 2-3/8" 4.7 lb/ft		
tubing	4535.13	17.66
Otis Sliding side door	2.92	4552.79
1 JT 2-3/8" 4.7 lb/ft		
tubing	31.54	4555.71
Otis 5-1/2" RH hydraulic		
packer	3.50	4587.25
2-3/8" EUE collar	0.40	4590.75
Otis 1.79" Profile No go		
nipple	0.85	4591.15
Ball seat & catcher sub	0.36	4592.00
Wireline re-entry guide	0.44	4592.00

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Perforation Intervals	:	4617-4631
(relative to KB)		4632-4644
		4665-4668
		4708-4713
		4719-4722
		4725-4729
		4733-4737
		4740-4759

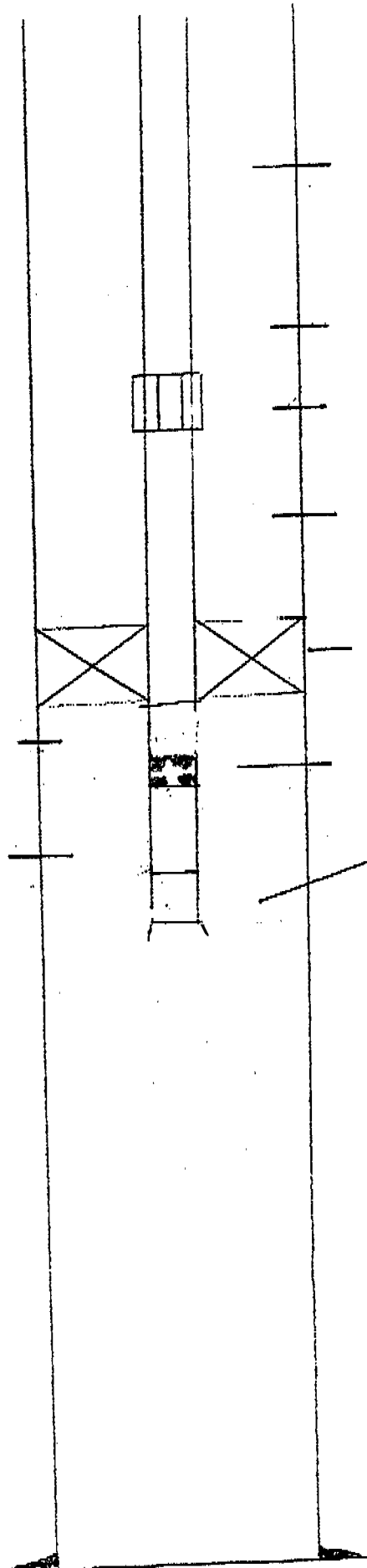
Perforated at 6 SPF 0° phasing with the perforating gun magnetically decentralised.

EM #11  
PROPOSED COMPLETION

PACKER SETTING DEPTH  
APPROX 4595 FT KB

5' PUP JOINT 2-3/8"  
TUBING

OTIS BALL CATCHER SUB



144 JTS 2-3/8" J55  
4.7 LB/FT TUBING EUE

6' PUP JOINT 2-3/8" TUBING  
EUE

OTIS X-O SLIDING SIDE DOOR  
1.87" PROFILE (CLOSED)

1 JT 2-3/8" TUBING EUE

5-1/2" OTIS RH HYDRAULIC  
PACKER (RETRIEVABLE)

OTIS XN NO.GO NIPPLE  
1.79" PROFILE

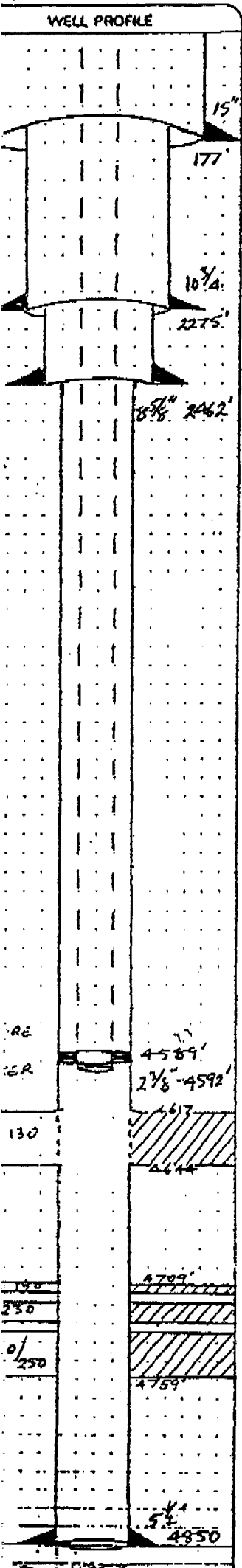
WIRELINE RE-ENTRY GUIDE

TOP OF PERFORATIONS AT  
4617 FT KB

5-1/2" 14 LB/FT PRODUCTION  
CASING



**WELL COMPLETION SUMMARY**



DATE: \_\_\_\_\_  
DAY MONTH YEAR

WELL NAME EAST MEREENIE 11  
 WELL LOCATION 24° 02' 10" S 131° 38' 41" E  
 K.B. ELEVATION 2349 K.B. TO CASING FLGE 18-20 K.B. TO TUBING FLGE 17-02

	SIZE (OD)	WEIGHT	SET AT	TOP	INTERVAL DEPTH
CASING	15"	50 lb/ft	177'		
CASING	10 3/4"	40.5 "	2275'		
CASING	8 3/8"	36 R32 "	2462'		
CASING	5 1/2"	14 "	4850'		
PERFS	4617 - 4644		4 SHOTS / FT		

DIAMETER OPEN HOLE \_\_\_\_\_  
 TUBING: SIZE 2 3/8 O.D. WEIGHT 4.7 lb/ft GRADE J55  
 TYPE/CLASS EUE R2 MAKE NKK  
 JOINTS PERMANENTLY IN WELL 1.45 TALLIED LENGTH 4566.67'

**FINAL TUBING STRING FROM BOTTOM UPWARD**

DESCRIPTION	LENGTH ft	SET AT TOP	REMARKS
WIRELINE RE-ENTRY	44	4592.36	
BALL SEAT & CATCHER SUB	36	4592.00	
No-60 NIPPLE	85	4591.15	
2 3/8" EUE COLLAR	40	4590.75	
5 1/2" RH PACKER	3	50 4587.25	OTIS
1 JT 2 3/8" TUBING	31	54 4555.71	
SLIDING SLEEVE	2	92 4552.79	
144 JTS 2 3/8" TUBING	4535	13 17.66	
TUBING HANGER	64	17.02	

Perforate the following intervals at 6SPF, 0° phasing the perforating gun magnetically decentralised. 3/87

**PERFORATION INTERVALS (FT RKB) FOOTAGE**

4632-4644	12 ft
4665-4668	3 ft
4708-4713	5 ft
4719-4722	3 ft
4725-4729	4 ft
4733-4737	4 ft
4740-4759	19 ft

TOTAL: 50 ft

(PLUS) \_\_\_\_\_  
 SETTING DEPTH K.B. 4592.80 TIME ON BOTTOM \_\_\_\_\_  
 CASING INTERNAL DEPTH BY TUBING \_\_\_\_\_

WEIGHT OF TUBING STRING 29000 WEIGHT ON PACKER 0 WEIGHT ON HANGER 19000  
 WELLHEAD W.P. 3000 MAKE MCEVOY FLANGED/SCREWED \_\_\_\_\_  
 MASTER VALVE TYPE GATE MAKE \_\_\_\_\_ SIZE 2"  
 CASING VALVES TYPE GATE MAKE \_\_\_\_\_ SIZE 2" SCREWED  
 CHOKE 2" TYPE ADJ MAKE \_\_\_\_\_

REMARKS (Note Additional Equipment) OIL PRODUCTION FROM P3-130

**FACSIMILE (Qld Operations Department)**

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TO : SANTOS, J.B. FITZGERALD/M.C. SYMONS (08) 212 5476  
MAGELLAN PETROLEUM, R.M. HOPKINS/D.D. BENBOW (07) 832 6411

FROM : R.S. BROWN

DATE : 10 DECEMBER 1990

PAGES : 2 (incl.)

REF : RSB:ZH/G.ENG90.3:56

DAILY COMPLETION RECORD - EAST MEREENIE 11

WELL : EAST MEREENIE 11  
REPORT DATE : 8 DECEMBER 1990  
CONTRACTOR : ATCO  
SUPERVISOR : R.D GOOSEM  
KB - CF : 17'  
OPERATION 0700 HR : POOH 2-3/8" TUBING

DAY 1, 8 DECEMBER 1990

TIME		OPERATIONS PERFORMED
From	To	
OPERATIONS PAST 24 HRS: RIG ARRIVES ON LOCATION		
0600	1130	SPOT EQUIPMENT AND RIG UP. RESTRING DRILLING LINE, SAND LINE, ETC.
1130	1145	PRESSURE TEST PUMP LINES.
1145	1300	FILL ANNULUS AND TUBING, AND CIRCULATE.
1300	1330	OBSERVE WELL.
1330	1715	REMOVE WELLHEAD ASSEMBLY. INSTALL CROSSOVER SPOOL. LOCATE SUITABLE STUDS AND NUTS FOR BOP FROM MEREENIE RIG 1. REPAIR GENERATOR TO POWER KOOMEY.
1715	1745	PRESSURE TEST PIPE RAMS AND BLIND RAMS TO 1500 PSI. RIG UP TO PULL PIPE.
1745	1830	UNSEAT PACKER WITH 18,000 LB OVER STRING WEIGHT. POOH 19 JOINTS.

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FROM : R.S. BROWN

DATE : 11 DECEMBER 1990

PAGES : 2 (incl.)

REF : RSB:ZH/G.ENG90.4:4

DAILY COMPLETION RECORD - EAST MEREENIE 11

WELL : EAST MEREENIE 11  
REPORT DATE : 10 DECEMBER 1990  
CONTRACTOR : ATCO  
SUPERVISOR : R.D GOOSEM  
KB - CF : 17'  
OPERATION 0700 HR : (11-12-90) RIG RELEASED

DAY 3, 10 DECEMBER 1990

TIME		OPERATIONS PERFORMED
From	To	
OPERATIONS PAST 24 HRS: -		
0600	0645	RIH AND LAND TUBING. PACKER AT 4575.6' KB
0645	0800	RIG DOWN FLOOR. NIPPLE DOWN BOP. INSTALL WELLHEAD. RIG TO CIRCULATE.
0800	0830	PRESSURE TEST SURFACE LINES TO 3000 PSI. OK CIRCULATE. DROP BALL. PUMP BALL. SET PACKER WITH 1300 PSI (OTIS RH). PUMP OUT BALL WITH 2200 PSI. PRESSURE ANNULUS TO 1000 PSI TO CHECK PACKER SEAT. OK.
0830	1000	RIG UP TO SWAB. RELOAD SANDLINE.
1000	1630	SWAB WELL. SWABBED 57 BLS. WELL FLOWING.
1630	1830	RIG DOWN. CLEAN CRUDE OIL FROM RIG. DRIVE CARRIER TO WORKSHOP YARD STOCK.

\*INCLUDES APPROX CREW DE-MOB BUT NO RIG DE-MOB

COST DAILY \$ 9200  
CUMULATIVE \$72710

1830 1845 FILL HOLE. SECURE WELL. SDFN.

DAILY COST: 3,470  
CUM. COST: 51,520 (INCLUDES MOBILISATION)

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FROM : R.S. BROWN

DATE : 10 DECEMBER 1990

PAGES : 2 (incl.)

REF : RSB:ZH/G.ENG90.3:56

**DAILY COMPLETION RECORD - EAST MEREENIE 11**

WELL : EAST MEREENIE 11  
REPORT DATE : 9 DECEMBER 1990  
CONTRACTOR : ATCO  
SUPERVISOR : R.D GOOSEM  
KB - CF : 17'  
OPERATION 0700 HR : RIH 2-3/8" TUBING

**DAY 2, 9 DECEMBER 1990**

TIME		OPERATIONS PERFORMED
From	To	
OPERATIONS PAST 24 HRS: -		
0600	0830	POOH 2-3/8" TUBING AND PACKER, ETC. RETRIEVED FISH - APPROXIMATELY 3 - 4 FT OF BALLED CABLE AND WIRELINE TOOLS. WIRELINE TIGHTLY BALLED IN COLLAR. TOOLS JAMMED. SLIDING SLEEVE CLOSED.
0830	1115	MAKE UP BIT AND SCRAPER AND RIH ON 2-3/8" TUBING. TAG BOTTOM AT APPROXIMATELY 4770' KB.
1115	1130	RIG UP TO CIRCULATE.
1130	1300	CIRCULATE WELL CLEAN.
1300	1430	POOH. LAY OUT BIT AND SCRAPER.
1430	1800	MAKE UP COMPLETION ASSEMBLY AND RIH. (WIRELINE RE-ENTRY GUIDE - BALL CATCHER SUB - XO NIPPLE - PUP JOINT - PACKER - 1 JT TUBING, CLOSED SLIDING SLEEVE, - 2 PUP JOINTS - TUBING).

1800

SDFN

\*

INCLUDES ESTIMATE OF PACKER XO-NIPPLE AND SLIDING SLEEVE COSTS.

DAILY COST: 11,990\*  
CUM. COST: 63,510