

NO	DESIGN DETAIL
1	DESIGN CODE
2	DESIGN PRESSURE
3	MAKSYM ALUMINUM OPERATING PRESSURE
4	MIN SPECIFIED TEST PRESSURE
5	WELDED
6	CLASS LOCATION
7	DESIGN TEMPERATURE

LEGENDS:-

- PIPELINE NPS 12
- UPVC 300
- CONCRETE SHA
- CONCRETE MANHOLE
- MANHOLE SCHEDULED
- CP POST
- CLOSE VALVE
- END CAP

MATERIALS SPECIFICATION

DA. OF PIPE	TYPE OF PIPE	WALL THICKNESS	LENGTH
NPS 12	AP 5L X 42	6.4mm	250m
NPS 8	AP 5L X 42	5.6mm	
NPS 6	AP 5L GRADE B / 42	4.8mm	
NPS 4	AP 5L GRADE B / 42	4.8mm	

BILL OF MATERIALS

ITEM	DESCRIPTION	QUANTITY
1	NPS 12	250 m
2	UPVC 300	197 pcs
3	Concrete Sha	12 pcs
4	Concrete Manhole	7 nos
5	Elbow 45° NPS 12	1 no
6	Reducer for NPS 12x8	1 no
7	Reducer for NPS 12x6	1 no
8	CP Post	1 no
9	End Cap	1 no

REFERENCE DRAWING :

NO.	DRAWING TITLE	DRAWING NO.
1	LOCATION PLAN AND PIPELINE ROUTE MAP	MC30/025B/STW/LS1_05/019/AB
2	ROUTE AND PROFILE INDEX PLAN	MC30/025B/STW/LS1_05/019/AB
3	SCHEMATIC DIAGRAM AND VALVE DESIGNATION	MC30/025B/STW/LS1_05/019/AB

REVISION :

NO.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK.	APPR.
01	15 Jun 2005	Issued for Approval	JW	MS	SM	AL
02	08 Jul 2005	Issued for Approval	JW	MS	SM	AL
03	20 Jun 2006	As-built (REV 05)	JW	MS	SM	AL
04	18 Mar 2006	As-built (REV 05)	JW	MS	SM	AL
05	21 Jul 2005	As-built (REV 05)	JW	MS	SM	AL
06	21 Jul 2005	As-built (REV 05)	JW	MS	SM	AL

OWNER: GAS MALAYSIA SDN. BHD.
 NO. 2, JALAN SEREMBAN 24/17,
 SODSYEN 26,
 40150 SHAH ALAM,
 SELANGOR DARUL EHSAN.
 TEL NO : 03 - 5192 - 3000
 FAX NO : 03 - 5192 - 0786

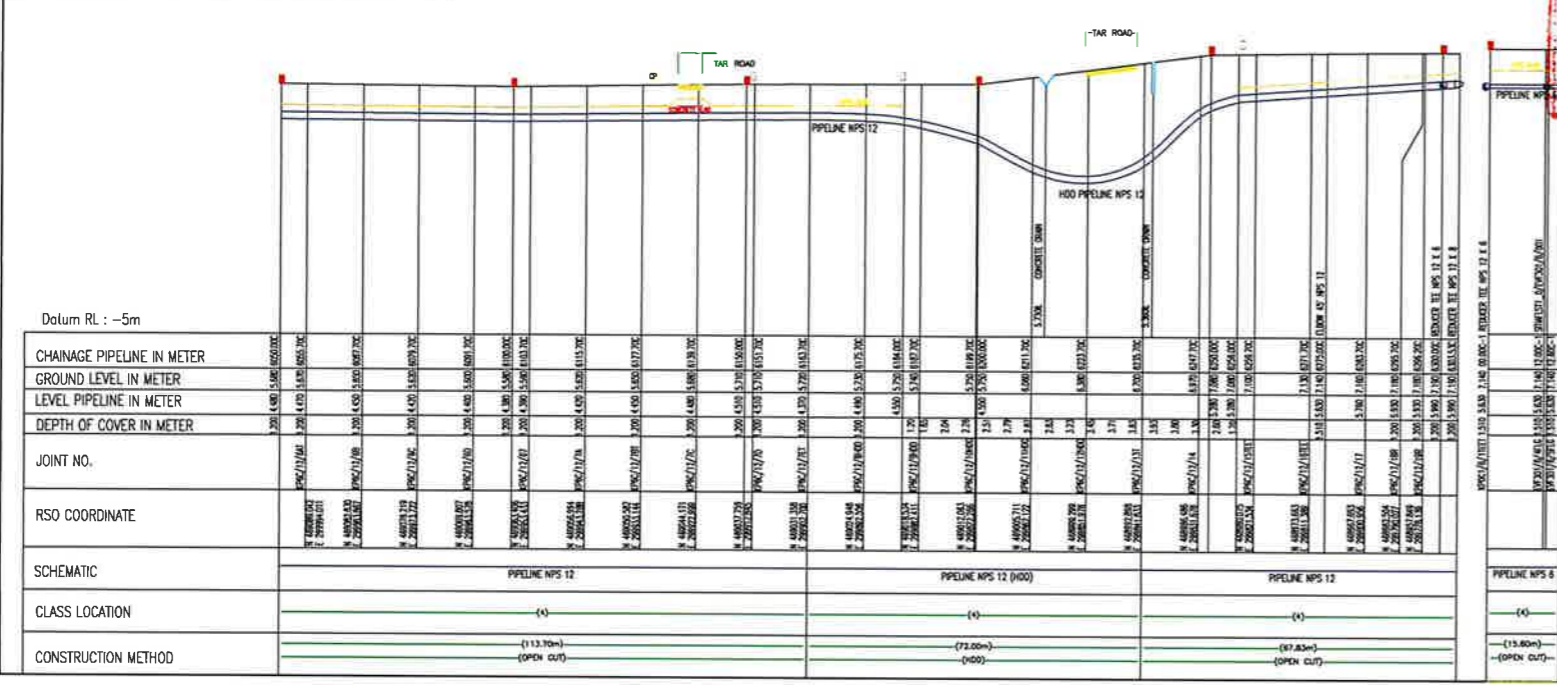
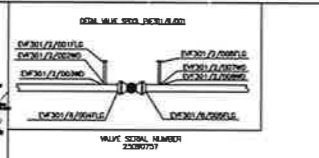
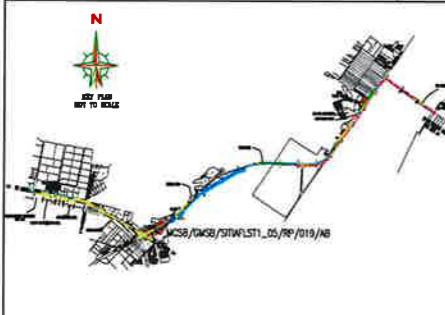
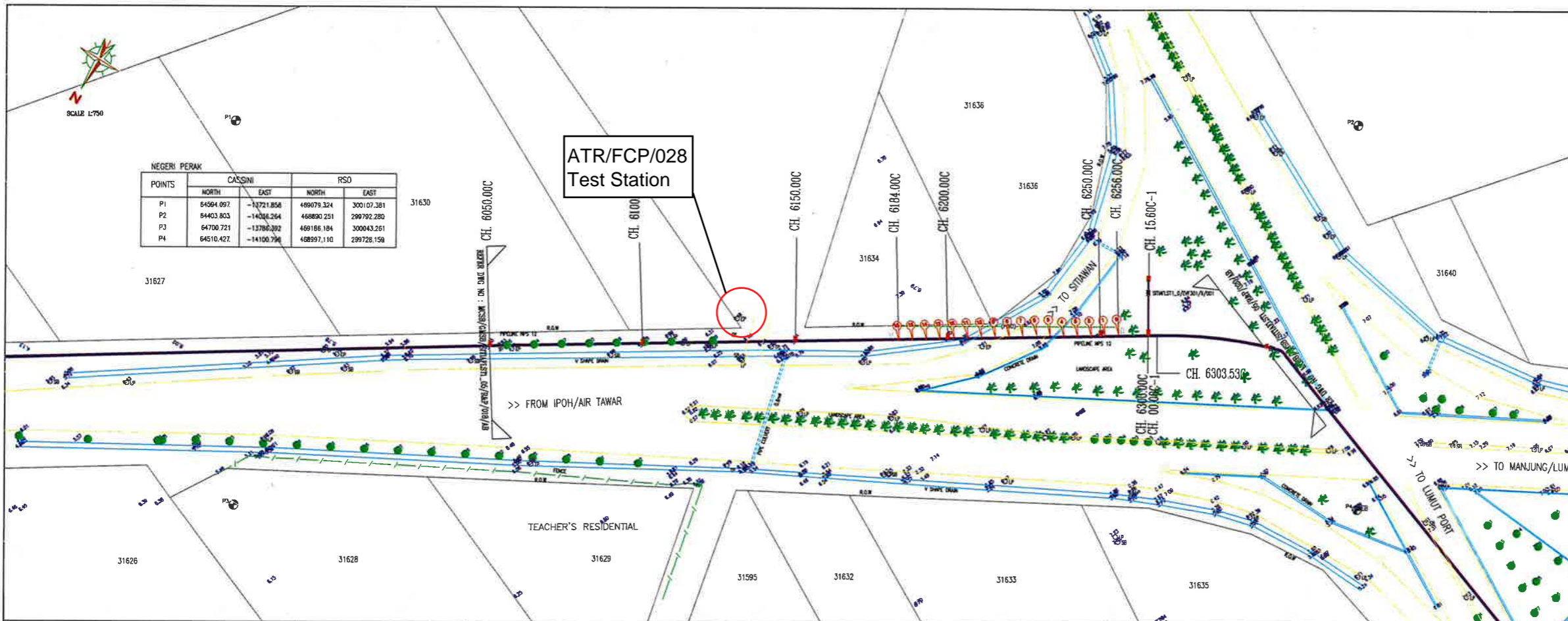
COMPETENT PERSON EMPLOYMENT
 NAME: U. ARJUN BALACHANDRAN
 REG. NO: 041
 DATE: 04/07/2005

SURVEYOR: JURUUKUR SUTERA
 Persendirian Ujur Kejuruteraan, Akademi Teknik,
 Skema, Hidrografi, Fotogrametri, Topografi,
 Perambatan, GPS dan GIS.

PROJECT TITLE:
 EPCB OF NATURAL GAS DISTRIBUTION SYSTEM TO
 SITIAWAN FL STAGE 1/05, SITIAWAN,
 PERAK DARUL RDZUAN.

DRAWING TITLE:
 AS-BUILT GAS PIPELINE ALIGNMENT
 ROUTE AND PROFILE
 CH. 6050.00C - CH. 6303.53C - NPS 12
 CH. 00.00C-1 - CH. 15.60C-1 - NPS 6
 HDD DRAWING DETAIL F
 (JALAN AIR TAWAR - SITIAWAN)

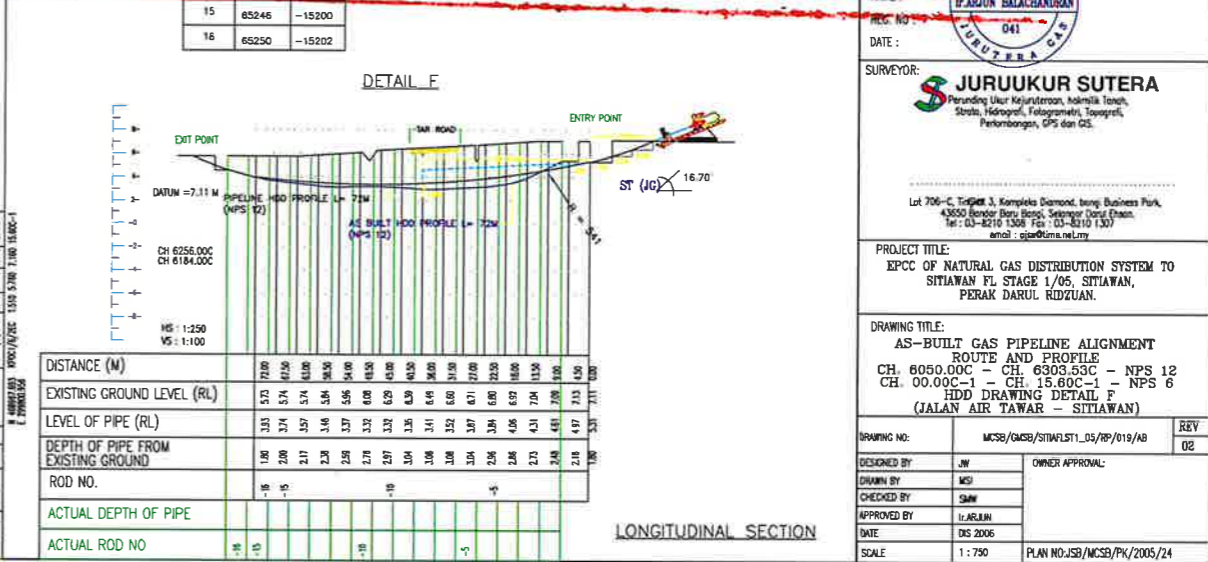
DESIGNED BY	OWNER APPROVAL
JW	
MS	
SM	
U. ARJUN	
DS 2006	

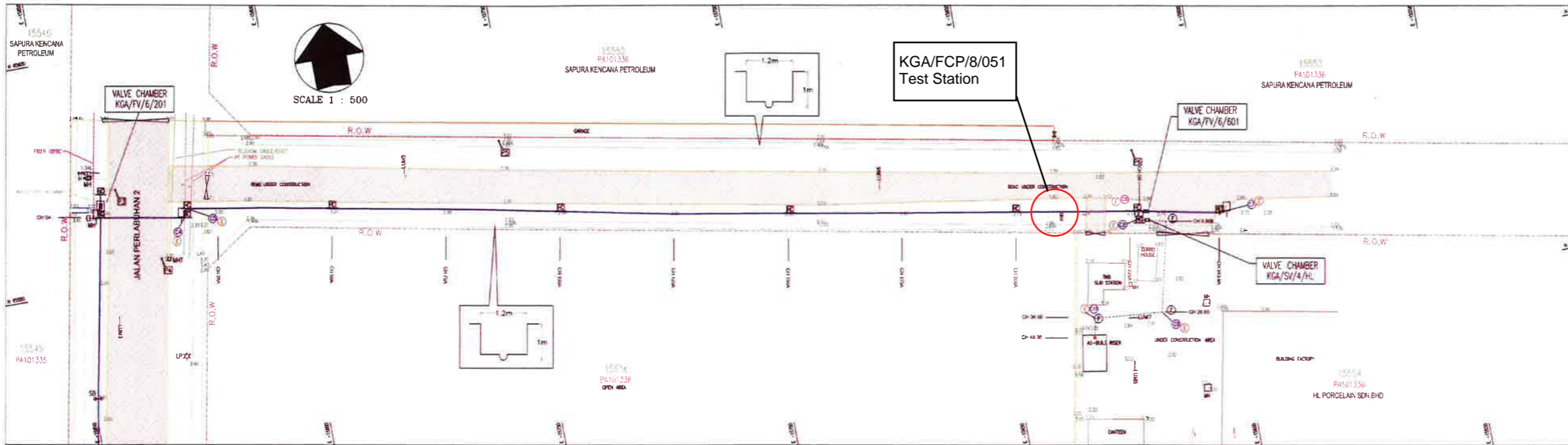


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SURUHANJAYA TENAGA
 JABATAN GAS
 NO 12, JLN TUN HUSSEIN ONN,
 PRECINCT 2,
 62100 PUTRAJAYA,
 WILAYAH PERSEKUTUAN.

NO	DESIGN DETAILS	UNIT	VALUE
1	PIPELINE SYSTEM	NPS	N/A
2	DESIGN CODE	ASME B 31.8	N/A
3	DESIGN PRESSURE/MAOP	2483 kPa/g	N/A
4	OPERATING PRESSURE RANGE	1024 - 2483 kPa/g	N/A
5	MAX SPECIFIED TEST PRESSURE	3725 kPa/g	N/A
6	MATERIAL	STEEL	N/A
7	CLASS LOCATION	1	N/A
8	DESIGN TEMPERATURE	15 - 50°C	N/A
9	FLOWLINE		N/A

LEGENDS:-

	EXISTING STEEL FEEDER LINE NPS 6		AS-BUILT STEEL FEEDER LINE NPS 6
	AS-BUILT STEEL SERVICE LINE NPS 4		PIPELINE CONCRETE MARKER TYPE 'X'
	PIPELINE CONCRETE MARKER TYPE 'Y'		OPEN VALVE
	CATHODIC PROTECTION POST		CLOSE VALVE
	PIPELINE WARNING SIGN		TAKE-OFF POINT
	END CAP (FLUSH MOUNTED TEST CHAMBER)		PIPELINE WARNING MARKER (FLUSH)
	ELECTRONIC MARKER		AS-BUILT COORDINATES

MATERIALS SPECIFICATION

NO	TYPE OF PIPE	TYPE OF PIPE	WALL THICKNESS	LENGTH
NPS 6	API 5 L X 42		4.8mm	243.90m
NPS 4	API 5 L X 42		4.8mm	49.3m

PIPE MANUFACTURER AND ORIGIN:
 HULU DAD CITY PIPE INDUSTRIAL COMPANY LIMITED, CHINA.

BILL OF MATERIALS

NO	DESCRIPTION	QUANTITY
1	VALVE NPS 6	1 no
2	VALVE NPS 4	1 no
3	TEE 6 X 4	1 no
4	TEE 4 X 4	1 no
5	END CAP NPS 6	2 no
6	END CAP NPS 4	4 no
7	END CAP	1 no
8	3M WIPER	7 no

REFERENCE DRAWING :

NO	DRAWING TITLE	DRAWING NO.
1	LOCATION PLAN AND PIPELINE ROUTE MAP	000/134/2131/13/000/01
2	SCHEMATIC DIAGRAM AND VALVE LOCATION	000/134/2131/13/000/02
3	CERTIFIED PLAN	101336 & 101337

REVISION :

NO	DATE	DESCRIPTION	DESIGN	CHK	APPR
01	26/12/2013	Issue for Approval	FSSB	MS	SAW
02	01/01/2014	As-built Modification	FSSB	MS	SAW

OWNER:
GAS MALAYSIA BERHAD
 NO.5, JALAN SERDANG 26/17,
 SERDANG 26,
 40725 SERANG ALAM,
 SELANGOR DARUL EHSAN,
 MALAYSIA.
 TEL NO : 03 - 5192-3000
 FAX NO : 03 - 5192-8788

CONTRACTOR:
FUSIONSPACE SOLUTIONS SDN.BHD.
 UNIT 27-6, BLOCK F2, JALAN PUA 1/42A,
 DATARAN PRIMA, 47301 PETALING JAYA,
 SELANGOR DARUL EHSAN.

COMPETENT PERSON ENDORSEMENT

NAME : *[Signature]*
 REG. NO : *[Number]*
 DATE : *[Date]*

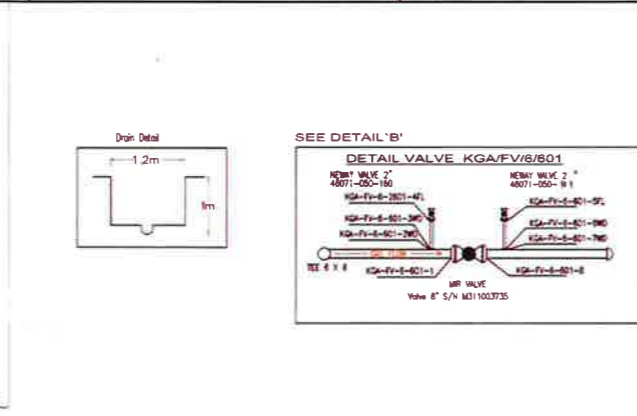
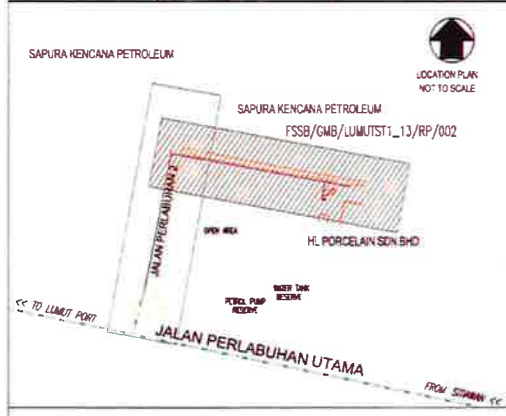
UTILITIES & UNDERGROUND MAPPING CONTRACTOR:
INSPECTION ENGINEERING SDN BHD
 NO 13-2, Jln Kuchel Maja 2,
 Kuchel Entrepreneur's Park,
 43500 Kuchel, Selangor Darul Ehsan.
 TEL: 03-7983 4357
 FAX: 03-7983 3776
 email: inspection.consult@yahoo.com.my

LICENSE SURVEYOR:
SERIAMAN
 Survey Consultant
 NO 1-52 Jalan Kering Kuning 1/11,
 Taman Kering Kuning,
 43500 Kuchel, Selangor Darul Ehsan.
 TEL: 03-7983 4357
 E-mail: seriaman@seriaman.com

PROJECT TITLE:
EPCC OF NATURAL GAS DISTRIBUTION SYSTEM TO LUMUT FL STAGE 1/13 SITIAWAN, PERAK DARUL RIDZUAN.

DRAWING TITLE:
**AS-BUILT ROUTE & PROFILE
 CH 0.0A - CH 243.90A (NPS 6)
 CH 0.0B - CH 49.30B (NPS 4)
 (HL PORCELAIN SDN.BHD.)**

DRAWING NO.	DESIGNED BY	CHECKED BY	APPROVED BY	DATE	SCALE
FSSB/GMB/LUMUTST1_13/002/ASB	FSSB	MS	SAW	Dec 2013	As Shown



SURVEYOR LEGEND :

POINTS	CASSINI		RSO	
	X	Y	X	Y
P1	175293.00	15826.072	175293.00	15826.072
P2	175293.00	15826.072	175293.00	15826.072
P3	175293.00	15826.072	175293.00	15826.072
P4	175293.00	15826.072	175293.00	15826.072
P5	175293.00	15826.072	175293.00	15826.072
P6	175293.00	15826.072	175293.00	15826.072
P7	175293.00	15826.072	175293.00	15826.072
P8	175293.00	15826.072	175293.00	15826.072
P9	175293.00	15826.072	175293.00	15826.072
P10	175293.00	15826.072	175293.00	15826.072

UTILITIES LEGEND :

SYMBOL	DESCRIPTION
	PIPELINE
	ELECTRIC CABLE
	DRAINAGE
	CONCRETE DRAIN
	ROAD
	DRAINAGE CHANNEL
	ROAD KERB

