



Aanvraag WM-vergunning en bijlagen

Q13a-A

March 2009

Formulier vergunningaanvraag
Wet milieubeheer

(versie 20-05-2003)

Ministerie van Economische Zaken
Indienen (in 7-voud) bij:
Ministerie van Economische Zaken,
Directoraat-Generaal voor Marktordening en Energie, Directie Energieproductie
Postbus 20101
2500 EC Den Haag

Dit formulier dient om ervoor te zorgen dat uw vergunningaanvraag voldoet aan alle eisen die de Wet milieubeheer daaraan stelt. Indien u vragen heeft van technische aard kunt u contact opnemen met het Staatstoezicht op de Mijnen te Voorburg (070) 395 65 00. Indien u vragen heeft van procedurele aard kunt u contact opnemen met de directie Energieproductie van het Ministerie van Economische Zaken (070) 379 79 99 / 379 70 88. Als de ruimte op het formulier te beperkt is kan worden verwezen naar een bijlage, die dan ook in 7-voud moet worden ingediend.

Inrichting

Verzoek om vergunning in gevolge de Wet milieubeheer (Wm) voor:

- ☒ Het oprichten en in werking hebben van een inrichting (ex art. 8.1, lid 1, onder a en c, Wm)
☐ Het veranderen en in werking hebben van een bestaande inrichting (ex art. 8.1, lid 1, onder b en c, Wm)
☐ Het veranderen, of het veranderen van de werking, van een inrichting de gehele inrichting omvattend (ex art. 8.4, lid 1, Wm)

Categorie van de inrichting (volgens Inrichtingen en Vergunningenbesluit milieubeheer lvb)

Categorie/categorieën:

Bijlage:

A Algemene gegevens

A1 Naam aanvrager

A2 Adres

Delta Hydrocarbons NL B.V.

Schiphol Boulevard 175
1118 BG Luchthaven Schiphol

A3 Contactpersoon (procedurele aspecten)

Telefoon

Telefax

E-mail

Th.C.W. Rothuis

020 7951975

020-7951752

theo.rothuis@deltahydrocarbons.com

A4 Winningsvergunning (naam)

Blokdeel Q13a

A5 Winningsplan goedgekeurd

☒ Nee ☐ Ja

Besluit (nr.):

d.d.

Ligt ter goedkeuring

A6 Inrichting

Naam locatie

Aard van de inrichting

Q13a-A

Onbemand olieproductieplatform

Blok (voorzover het een inrichting betreft binnen de 12 mijlszone)

Q13a

Coördinaten 52°11'30.920" NB 4° 08' 14.570" OL

Adres (voorzover het een inrichting betreft op land)

N.V.T.

Kadastraal

Gemeente (svp ook bestuurlijke gemeente aangeven)

Sectie

Nr's

N.V.T.

Tekeningen

Kadastrale tekening (bij voorkeur 1:1000)

nr.

rev.

N.V.T.

Inrichting

Schematische weergave ondergrondse inrichting (putontwerp/verbuizing)

2 tekeningen productieput en 1 tekening voor injectieput bijgevoegd

Plattegrondtekening (met aanduiding emissiepunten lucht en water) (bij voorkeur 1:1000)

nr. Q13A-M1-201-001

rev. F01

Situatietekening (bij voorkeur schaal 1:10.000)

nr. Artist impression bijgevoegd

Rev

Schema hoofdprocesleidingen (bij voorkeur schaal 1:500)

nr. Q13A-PR-003-001

rev. F03

Schematische weergave proces (met aanduiding emissiepunten lucht en water)

nr. Q13A-PR-004-002/ Q13A-PR-004-003/Q13A-PR-

Rev F03.

Q13A-PR-610-001/Q13A-PR-630-001

Rev.F03

Q13A-PR-001-002 t/m 4

Rev. F03

Bebouwing in onmiddellijke nabijheid van de inrichting

Aard

Afstand in m.

Geen

A7 Overige vergunningen/kennisgevingen:

Aanvraag Bouwvergunning verplicht (Indien Ja afschrift aanvraag toezenden)

☒ Nee

Voor:

Aanvraag vergunning ingevolge Wet verontreiniging oppervlaktewater (Wvo) verplicht (Indien Ja afschrift toezenden)

☒ Nee

☐ Ja

Voor:

Vergunning(en) en meldingen krachtens welke de bestaande inrichting is opgericht en in werking is (indien van toepassing):

☒ Nee

☐ Ja

Omschrijving

Datum

Beschikings-nummer

A8 Overige regelgeving (Welke besluiten of richtlijnen zijn van toepassing)

Besluit Opslag Ondergrondse Tanks

☒ Nee

☐ Ja

Voor:

Besluit Emissie Eisen Stookinstallaties

☒ Nee

☐ Ja

Voor:

Inrichting

Besluit Risico's Zware Ongevallen

☒ Nee ☐ Ja Voor:

Besluit milieu-effectrapportage 1994

Nee ☒ Ja Voor: Het oprichten en in werking hebben van een inrichting waar de dagproductie meer dan 500t aardolie bedraagt

Lozingenbesluit bodembescherming

☒ Nee ☐ Ja Voor:

Gevaarlijke afvalstoffen (Eural)

☒ Nee ☐ Ja Voor:

CFK-lekdichtheidsbesluit

☒ Nee ☐ Ja Voor:

CPR-richtlijnen

CPR-richtlijn-nummer:

☒ Nee ☐ Ja Voor:

Nederlandse Emissie Richtlijn (NER) (bijzondere regeling 3.3/E.11)

☒ Nee ☐ Ja Voor:

Nederlandse Richtlijn Bodem (NRB)

☒ Nee ☐ Ja Voor:

Wet geluidhinder (geluidsgezoneerd?)

☒ Nee ☐ Ja Voor:

Overige

☒ Nee ☐ Ja Voor:

Coördinatie (ex. art. 14.1 Wm)

☒ Nee ☐ Ja Voor:

B Bijzondere gegevens

B1 Beschrijving van de aard van de inrichting

Gas winning/behandeling

Bijlage:

Olie winning/behandeling

Bijlage B1

B2 Activiteiten of processen in de inrichting die van belang kunnen zijn voor nadelige gevolgen voor het milieu

Uit de effectbeschrijving van hoofdstuk 8 van het MER blijkt dat zowel bij reguliere activiteiten als bij incidenten in het ergst mogelijke geval niet meer dan een gering negatief effect of tijdelijk een groter negatief effect mogelijk wordt geacht in vergelijking met de autonome Ontwikkeling. Zie het MER hoofdstuk 8

Activiteiten/processen	Toegepaste technieken (pagina)	Wijze van Energievoorziening (pagina)
		Aanvoer electriciteit per kabel vanaf vaste wal

Inrichting

B3 Gebruikte grondstoffen/hulpstoffen/bijproducten in relatie tot nadelige gevolgen voor het milieu (geen merknamen, maar productbeschrijving (bijv. corrosie inhibitor)

Grondstoffen:	Kenmerkende gegevens	Type opslag	Hoeveelheden Opslag	Verbruik
Hulpstoffen:	Kenmerkende gegevens	Type opslag	Hoeveelheden Opslag	Verbruik
Methanol	Zie charm	Alle producten worden opgeslagen in afgesloten verplaatsbare tanks	0,5 m3	*
Corrosion inhibitor			0,4 m3	*
Defoamer			0,2 m3	*
Descaler			0,2 m3	*
Bio Degr.Hydraulic			1,0 m3	*
Demulsifier			0,4 m3	*
Diesel		In de kraan en reddingsboot	*	
* Zie bijlage B3				
Bijproducten:				
Meegeproduceerd aardgas geleidelijk afnemend	2011	Mm3/d	0,11	

B4 Maximum capaciteit van de inrichting

Maximum geïnstalleerd vermogen:

verbrandingsmotoren (KJ)

elektromotoren (KW)

3,5MW 4,5MW bij gebruik kraan

Gaswinnings/behandelingscapaciteit (Nm3/dag)

Oliewinningscapaciteit barre/d

De totale pompcapaciteit bedraagt 20.000 barrel per dag. Aanvankelijk relatief veel (80%) olie (20%) water, afnemend naar 5% olie en 95% water,

B5 Bedrijfstijden van de inrichting

Continu

B6 Belasting van het milieu tijdens normaal bedrijf

Emissie	Aard	Omvang	Duur	Wijze van registreren	Maatregelen ter reductie
☐ 1.Lucht	Zie voor deze punten bijlage B6				
☐ 2.Water					
☐ 3.Bodem					
☐ 4.Geluid					
☐ 5.Geur					

B7 Maatregelen ter voorkoming/beperking van belasting van het milieu door de inrichting ten gevolge van afvalstoffen

Afvalstoffen	Hoeveelheden/ jr.	Wijze van opslag	Verwijdering	Hergebruik	Inzamelaar	Afvoer freq./jr.	Wijze van registratie
	Zie	bijlage	B6				

Inrichting

B8 Transportbewegingen tijdens normaal bedrijf

tussen 07.00 en 19.00 uur per jaar

tussen 19.00 en 23.00 uur per dag/week

tussen 23.00 en 07.00 uur per dag/week

36 helicoptervluchten

16 bevoorradingsschepen

B9 Op dit moment bekende toekomstige ontwikkeling van de inrichting die voor beslissing op de aanvraag van belang is

☒ nee

☐ ja, namelijk:

B10 Brandbeveiliging

F & G systeem voor de detectie van brand en/of vrijkomen van brandbare gassen. Brandblussers en "twin agent unit"

B11 Externe veiligheid

Bijlage:

(Plaatsgebonden) risico contour 10^{-6}

N.V.T.

C Te verstrekken gegevens indien van toepassing

C1 Onderzoek naar de kwaliteit van de bodem

☒ nee

☐ ja, rapportnummer:

d.d.

C2 Aanvullende regels en gegevens i/v hoofdstuk 5 ex par. 1.1 en par. 1.2

☒ nee

☐ ja, namelijk:

Maatregelen ter voorkoming of beperking van belasting van het milieu door de inrichting tijdens:

Proefdraaien

Onderhoudswerkzaamheden

Ongewone voorvallen/calamiteiten

Tijdstippen waarop uitgevoerd. Beperking van onderhouds intervallen. Zie ook hoofdstuk 9 van het MER

C3 Geluidsprognose-rapport

☒ nee

☐ ja, rapportnummer:

d.d.

C4 Is de inrichting gelegen in een milieubeschermingsgebied/gevoelig gebied (Bijv. Vogel /Habitatrichtlijn).

☒ nee

☐ ja

Nb. Als een dergelijk gebied nabij; afstand:

C5 Is de inrichting aangesloten op een openbaar riool

☒ nee

☐ ja

☐ Rioolozing via zuiveringstechnisch werk

☐ Rioolozing op oppervlaktewater

C6 Is een bij de inrichting behorende verlaadkade aanwezig

☒ nee

☐ ja, namelijk:

C7 Is een meerjarenafspraak (MJA) van kracht

☐ nee

☒ ja

C8 Is een milieuzorgsysteem operationeel

☐ nee

☒ ja

Gecertificeerd?

C9 Zijn maatregelen in kader Bedrijfsmilieuplan van toepassing

☒ nee

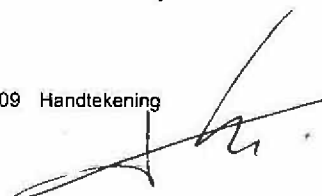
☐ ja, bijlage/pagina

BMP jaar:

D Ondertekening

Naam Th.C.W. Rothuis

Datum 13/3/2009 Handtekening



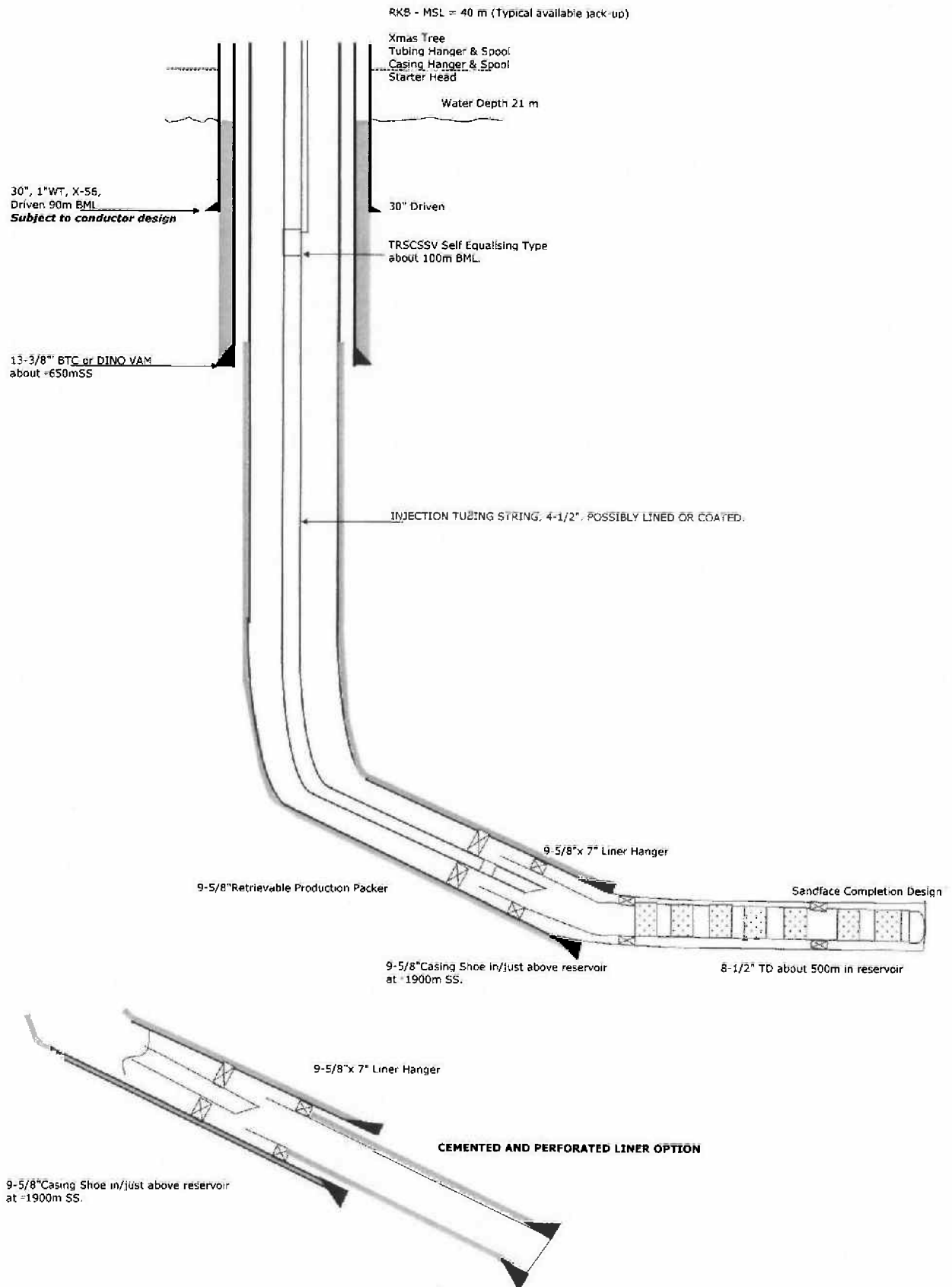
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Inrichting

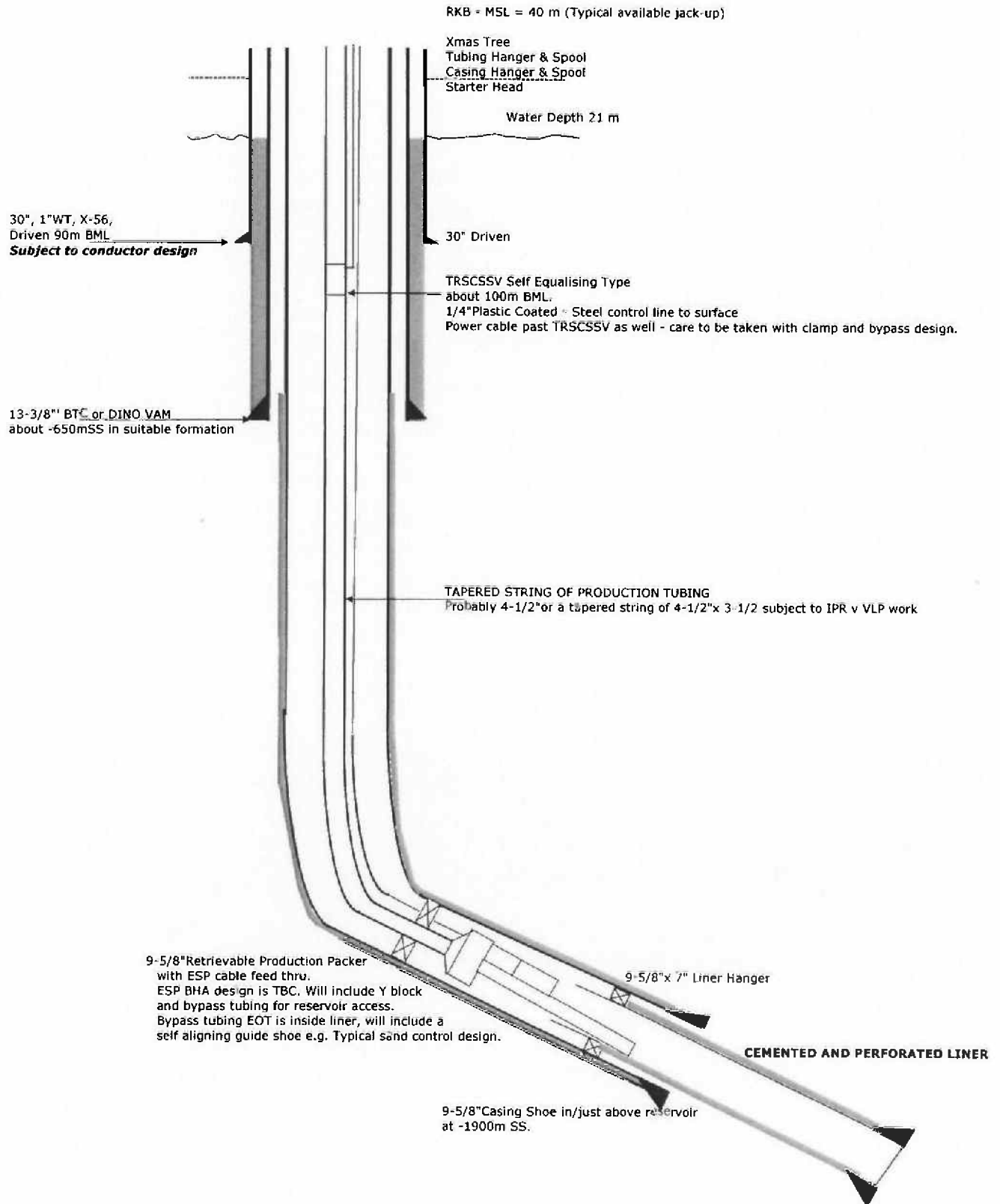
E Bijlagen

Bijlagen	Omschrijving
B1	Productieproces
B3	Mijnbouwhulpstoffen
B6	Emissie en afvalstoffen

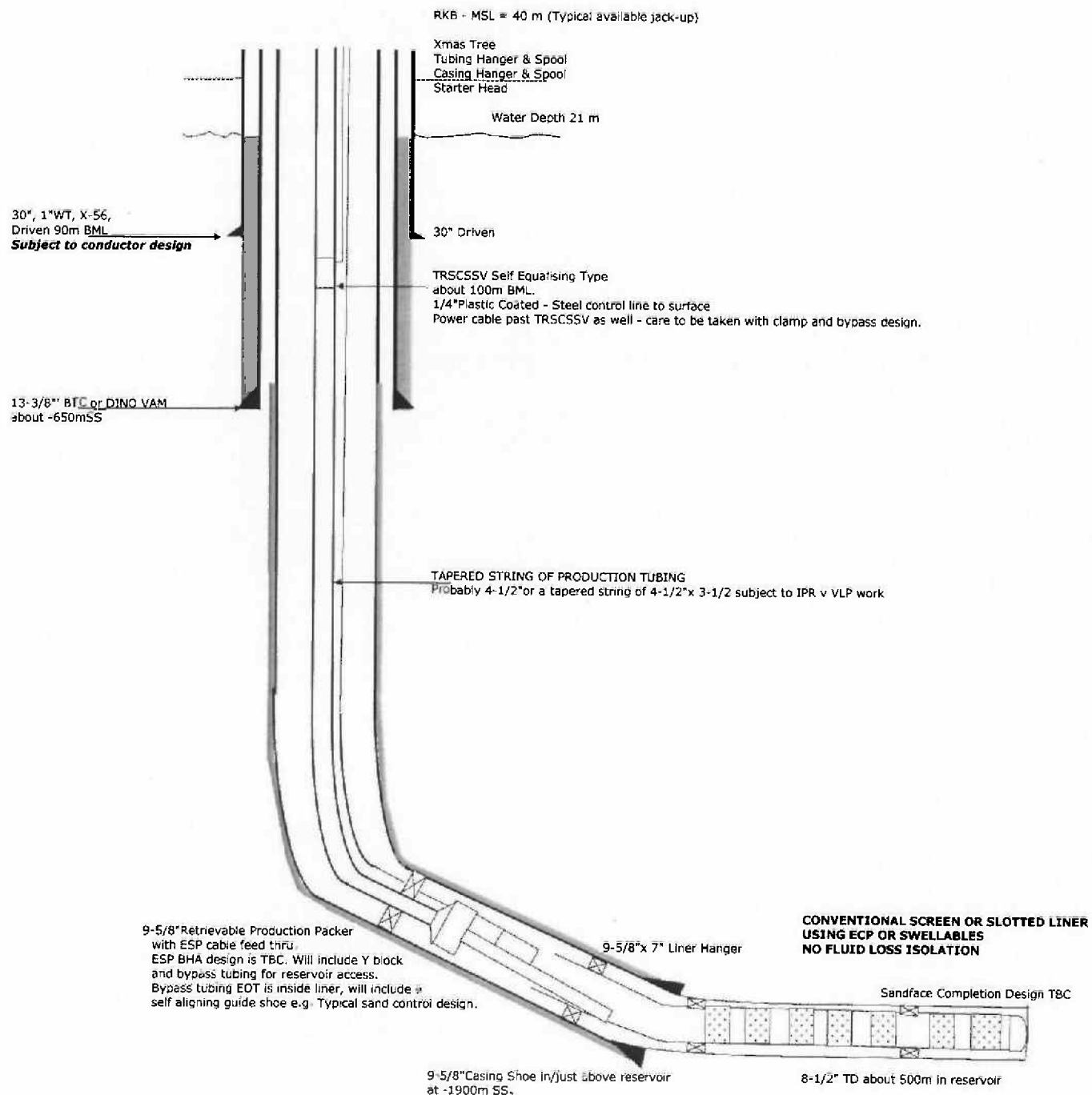
AMSTEL GENERIC WATER INJECTION WELL SCHEMATIC



AMSTEL GENERIC OIL PRODUCER WELL SCHEMATIC CASED HOLE OPTION



AMSTEL GENERIC OIL PRODUCER WELL SCHEMATIC
OPEN HOLE I.E. SCREENS OR SLOTTED LINER



NOTES

HOLDS

LEGEND

REFERENCE DRAWINGS

KEY PLAN

REV	DATE	BY	DESCRIPTION	CHK'D	APP'D
F01	25-02-2009	LME	APPROVED FOR DESIGN	TVM	

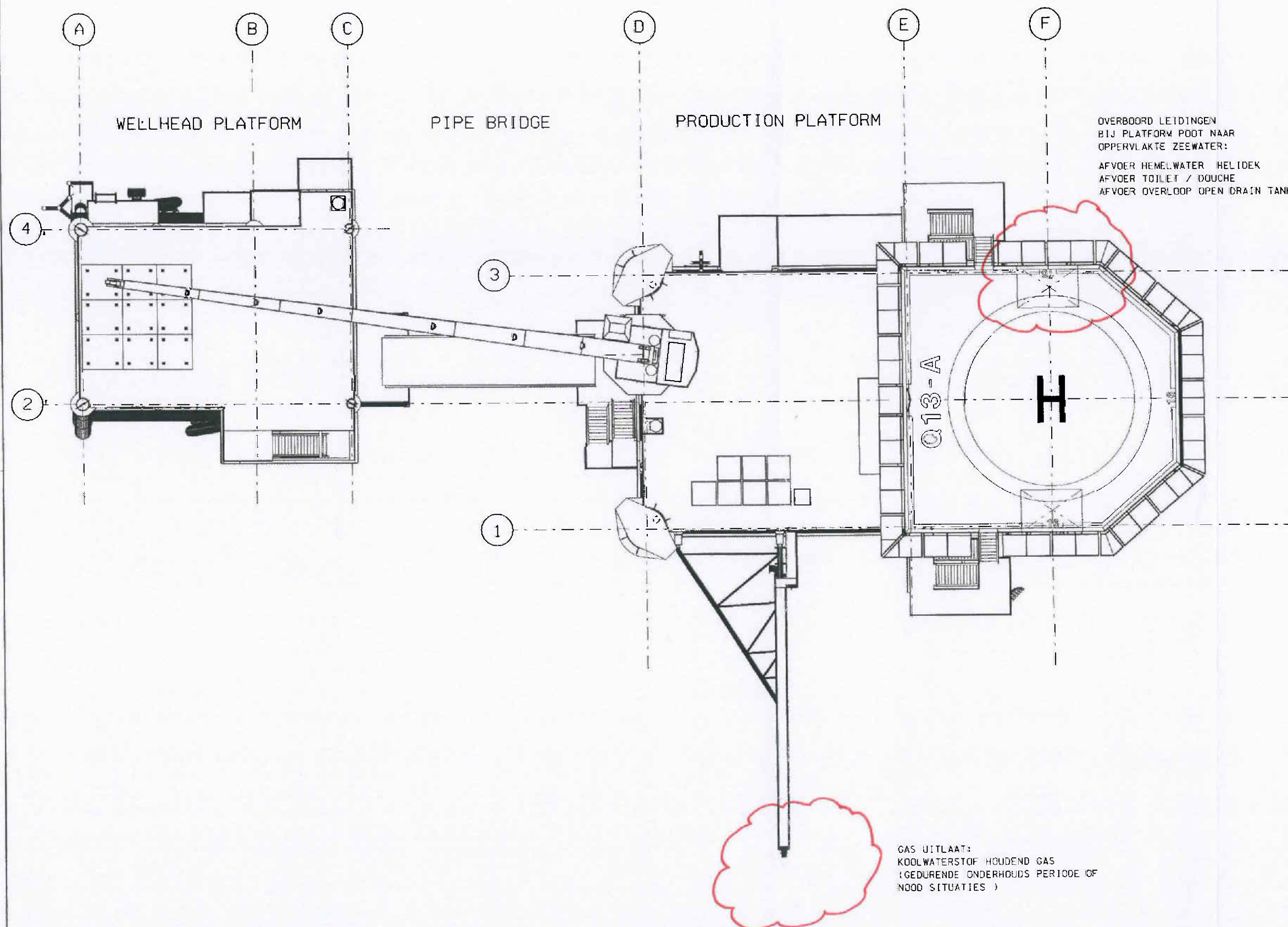
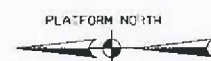
DELTA
HYDROCARBONS

Hy-DR & Gas

PLATFORM: Q13A AMSTEL PLATFORM

TITLE: ALGEMEEN PLOTPLAN
EMISSION LOCATIES
WELLHEAD & PRODUCTION PLATFORM

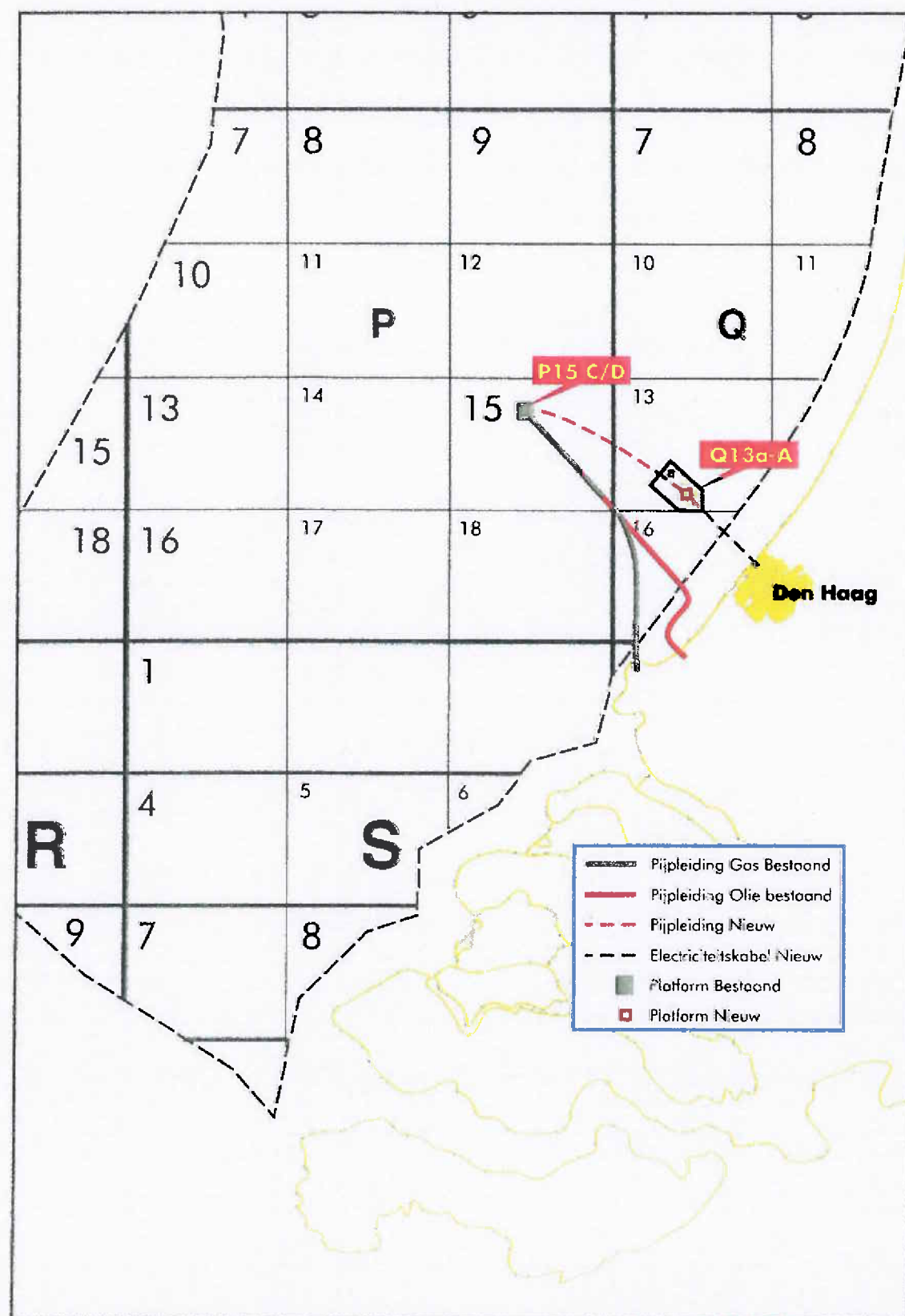
SCALE	DRAWING No.	SHEET No.	SZ
1:125	Q13A-MI-201	001	A1
APP No: OGP4080179			



0 1 2 3 4 CM

GRAPHIC SCALE
1:125

Delta Hydrocarbons NL B.V.



PRODUCED WATER CIRCULATING CYCLONE			
V-1290/V-1240			
DESIGN PRESSURE	40	BAR	
DESIGN TEMPERATURE	-20/50	°C	
SIZE ID X I/D	1600 X 1600	mm	
CAPACITY	2 X 50%		

PRODUCTION SEPARATOR			
V-1200			
DESIGN PRESSURE	45	BAR	
DESIGN TEMPERATURE	-20/50	°C	
SIZE ID X I/D	2000 X 1900	mm	

DESANDING CYCLONE			
V-1210			
DESIGN PRESSURE	40	BAR	
DESIGN TEMPERATURE	-20/50	°C	
SIZE ID X I/D	1300 X 800	mm	

SAND ACCUMULATION VESSEL			
V-1220			
DESIGN PRESSURE	40	BAR	
DESIGN TEMPERATURE	-20/50	°C	
SIZE ID X I/D	1600 X 800	mm	

POLISHING VESSEL			
V-1260			
DESIGN PRESSURE	40	BAR	
DESIGN TEMPERATURE	-20/50	°C	
SIZE ID X I/D	1500 X 3000	mm	

PRODUCED WATER BOOSTER PUMPS			
P-1200/P-1210			
TYPE	CENTRIFUGAL		
FLUID	WATER		
LOCATION	HT	10/10	
FLUID	WATER		
OPERATING HEAD	110	m	
DRIVE RATING	75	kW	
INSTALLER	12/2/2006		

WATER INJECTION PUMPS			
P-1220/P-1230/P-1240			
TYPE	CENTRIFUGAL		
FLUID	WATER		
LOCATION	HT	10/10	
FLUID	WATER		
OPERATING HEAD	110	m	
DRIVE RATING	75	kW	
INSTALLER	12/2/2006		

PIG LAUNCHER			
L-1500			
DESIGN PRESSURE	45	BAR	
DESIGN TEMPERATURE	-20/50	°C	
SIZE ID X I/D	1600	mm	

POUR POINT
SUPPRESSANT

PR-004-005

CORROSION INHIBITOR

PR-004-005

CORROSION INHIBITOR BRIDGE

PR-004-005

DEMULSIFIER

PR-004-005

SCALE INHIBITOR

PR-004-005

X-1010

SUB SURFACE

VS0

X-1020

SUB SURFACE

VS0

X-1030

SUB SURFACE

VS0

X-1040

SUB SURFACE

VS0

NOTE 1

NOTE 1

NOTES

1. FUTURE TIE-INS.
SEE DWG D13A-PR-003 SHT. 002

LEGEND

REFERENCE DRAWINGS

REV	DATE	BY	DESCRIPTION	CHKD	APPD
F03	06-02-09	JSU	APPROVED FOR DESIGN		
F04	05-12-08	SVD	CLIENT COMMENTS INCORPORATED		
F01	09-11-08	SVD	ISSUE FOR APPROVAL		

PLATFORM AMSTEL FIELD DEVELOPMENT

TRE
PFD
AMSTEL MAIN PROCESS

SCALE	DRAWING No.	SHEET No.	REV.
	D13A-PR-003	001	A1

JOB No.
00PA000179

703

T-6300 WELLHEAD PLATFORM DRAIN TANK		
DESIGN PRESSURE	UQ FILLED	bar g
DESIGN TEMPERATURE	-10/50	°C
SIZE L X W X H	3500 X 2500 X 1600	mm

P-6300/P-6310 WELLHEAD PLATFORM DRAIN PUMP		
TYPE	CENTRIFUGAL	
MEDIUM	WATER	
DENSITY	1000	kg/m ³
FLOWRATE	5	m ³ /h
DIFFERENTIAL HEAD	5	m LD
DRIVER RATING	0.1	kW

T-6320 CELLAR DECK DRAIN TANK		
DESIGN PRESSURE	UQ FILLED	bar g
DESIGN TEMPERATURE	-10/50	°C
SIZE L X W X H	1000 X 1000 X 700	mm

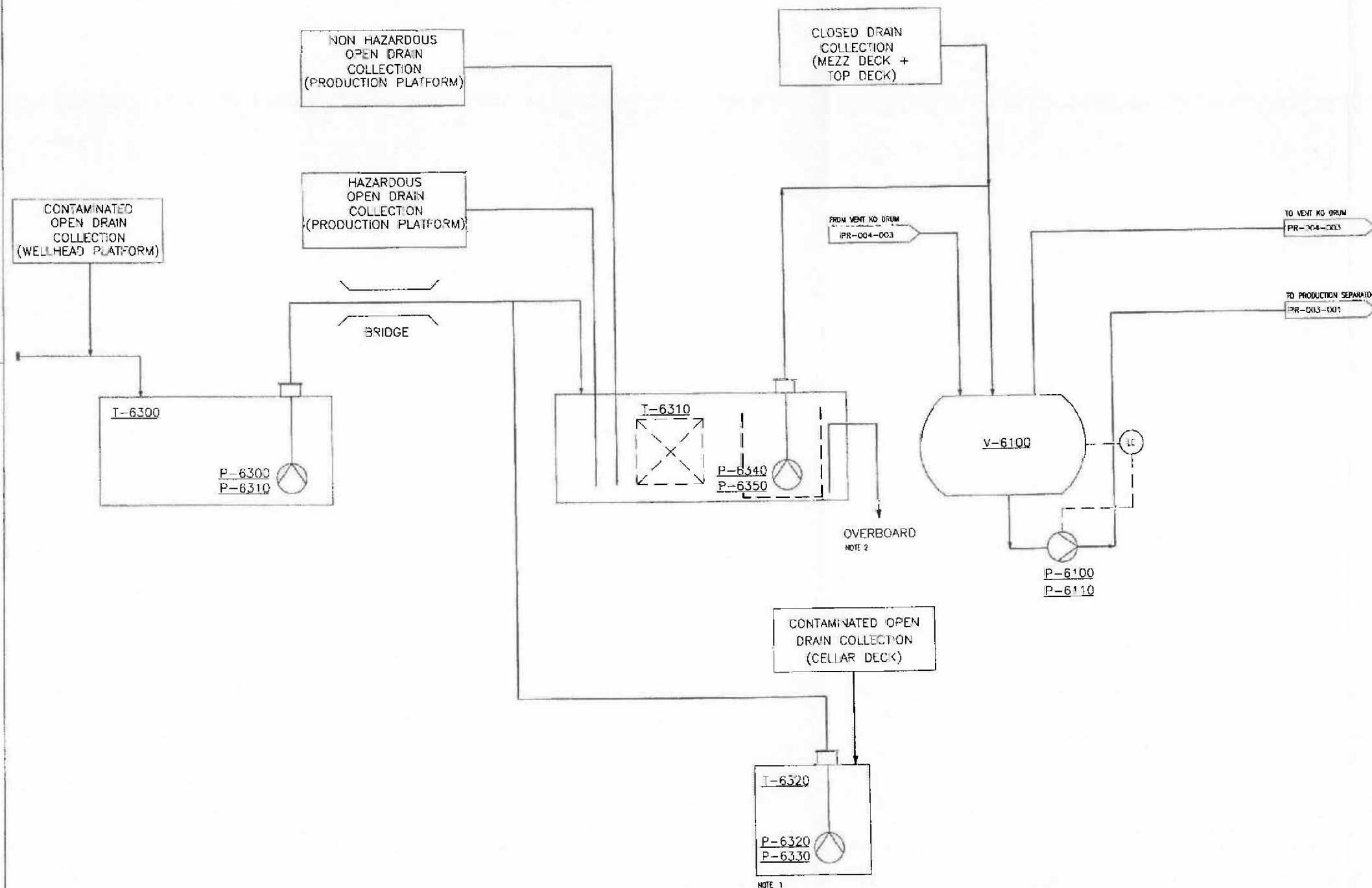
P-6320/P-6330 CELLAR DECK DRAIN PUMP		
TYPE	CENTRIFUGAL	
MEDIUM	WATER	
DENSITY	1000	kg/m ³
FLOWRATE	5	m ³ /h
DIFFERENTIAL HEAD	5	m LD
DRIVER RATING	0.1	kW

T-6310 OPEN DRAIN TANK		
DESIGN PRESSURE	UQ FILLED	bar g
DESIGN TEMPERATURE	-10/50	°C
SIZE L X W X H	1400 X 2000 X 1600	mm

P-6340/P-6350 OPEN DRAIN PUMP		
TYPE	CENTRIFUGAL	
MEDIUM	WATER	
DENSITY	1000	kg/m ³
FLOWRATE	5	m ³ /h
DIFFERENTIAL HEAD	25	m LD
DRIVER RATING	0.4	kW

V-6100 CLOSED DRAIN VESSEL		
DESIGN PRESSURE	10	bar g
DESIGN TEMPERATURE	-20/90	°C
SIZE Ø X L/T	2000 X 4000	mm

P-6100/P-6110 CLOSED DRAIN PUMP		
TYPE	CENTRIFUGAL	
MEDIUM	HC CONDENSATE/WATER	
DENSITY	700 - 1000	kg/m ³
FLOWRATE	20	m ³ /h
DIFFERENTIAL HEAD	550	m LD
DRIVER RATING	2.9	kW



NOTES

- TANK LOCATED BETWEEN STRUCTURAL STEEL CELLAR DECK
- OIL IN WATER CONTENT < 30 ppm

LEGEND

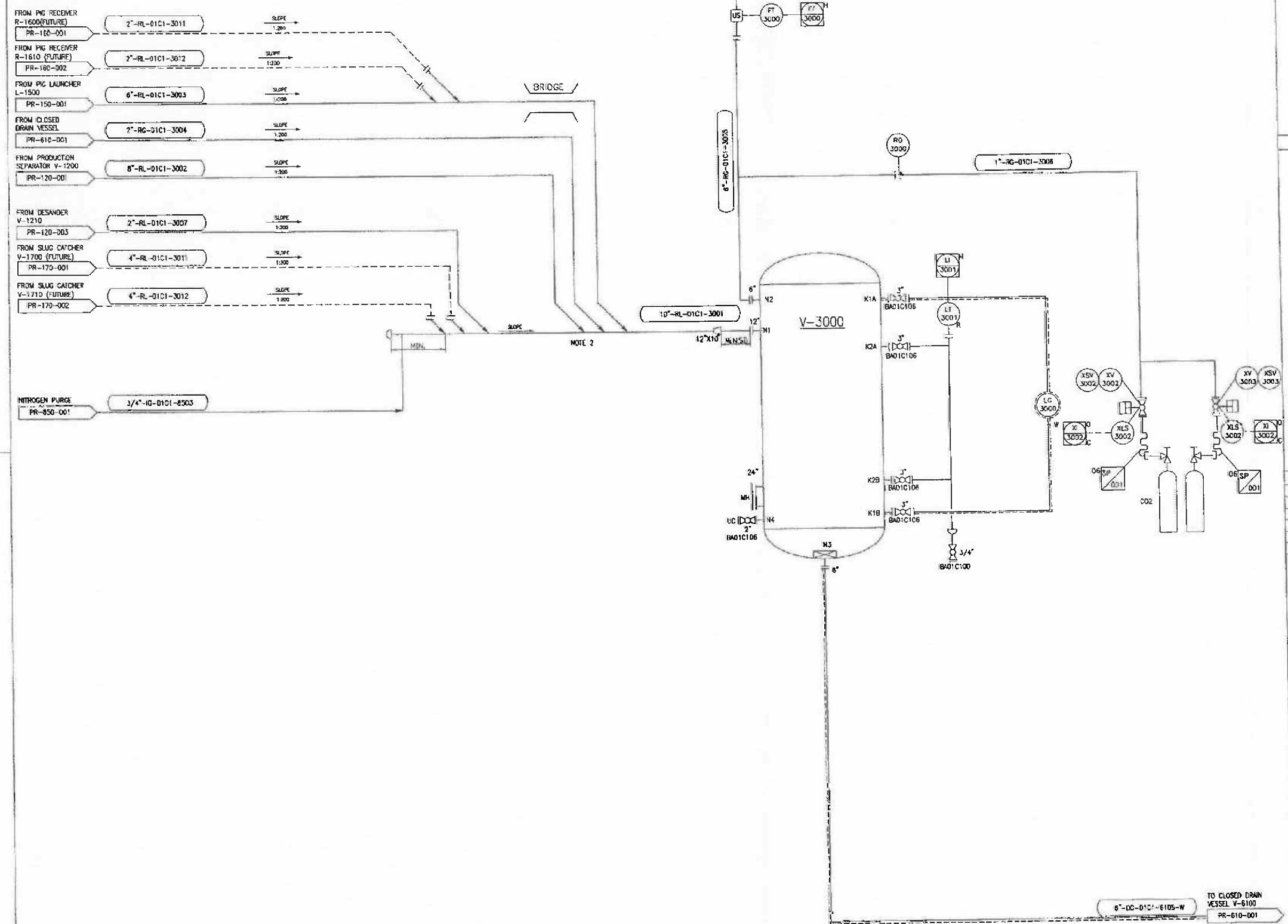
REFERENCE DRAWINGS

REV	DATE	BY	DESCRIPTION	DESIGN NO.
P03	06-07-09	ASU	APPROVED FOR DESIGN	013A-PR-004
P02	05-12-08	SVO	CLIENT COMMENTS INCORPORATED	013A-PR-004
P01	10-11-08	SVO	ISSUE FOR APPROVAL	013A-PR-004

PLATFORM: AMSTEL FIELD DEVELOPMENT

TITLE: UFD DRAIN SYSTEM

SCALE:	DRAWING NO.:	SHEET NO.:	REV:
013A-PR-004	002	A1	



V-3000 VENT K.O. DRUM		
DESIGN PRESSURE	10	BARG
DESIGN TEMP	-20/90	°F
SIZE	1021/1	
VESSEL TRM	RL-01C1-3008	

NOTES

1. -

2. BE INS AT T.O.P. UNDER 45°.

HOLDS

REFERENCE DRAWINGS

FOR	11-02-03	FSC	APPROVED FOR DESIGN	SWD	NR
FOR	20-07-07	DND	ISSUED FOR HAZOP	SWD	SS
FOR	17-12-08	WVP	ISSUED FOR APPROVAL	SWD	RS
REV	DATE	BY	DESCRIPTION	CHKD	APPD

HYDROCARBONS

PLATFORM

AMSTEL FIELD DEVELOPMENT

LINE

PRODUCTION PLATFORM P & ID VENT SYSTEM

SCALE	DRAWING NO.	SHEET NO.	REV
	Q13A-PR-300	001	A1

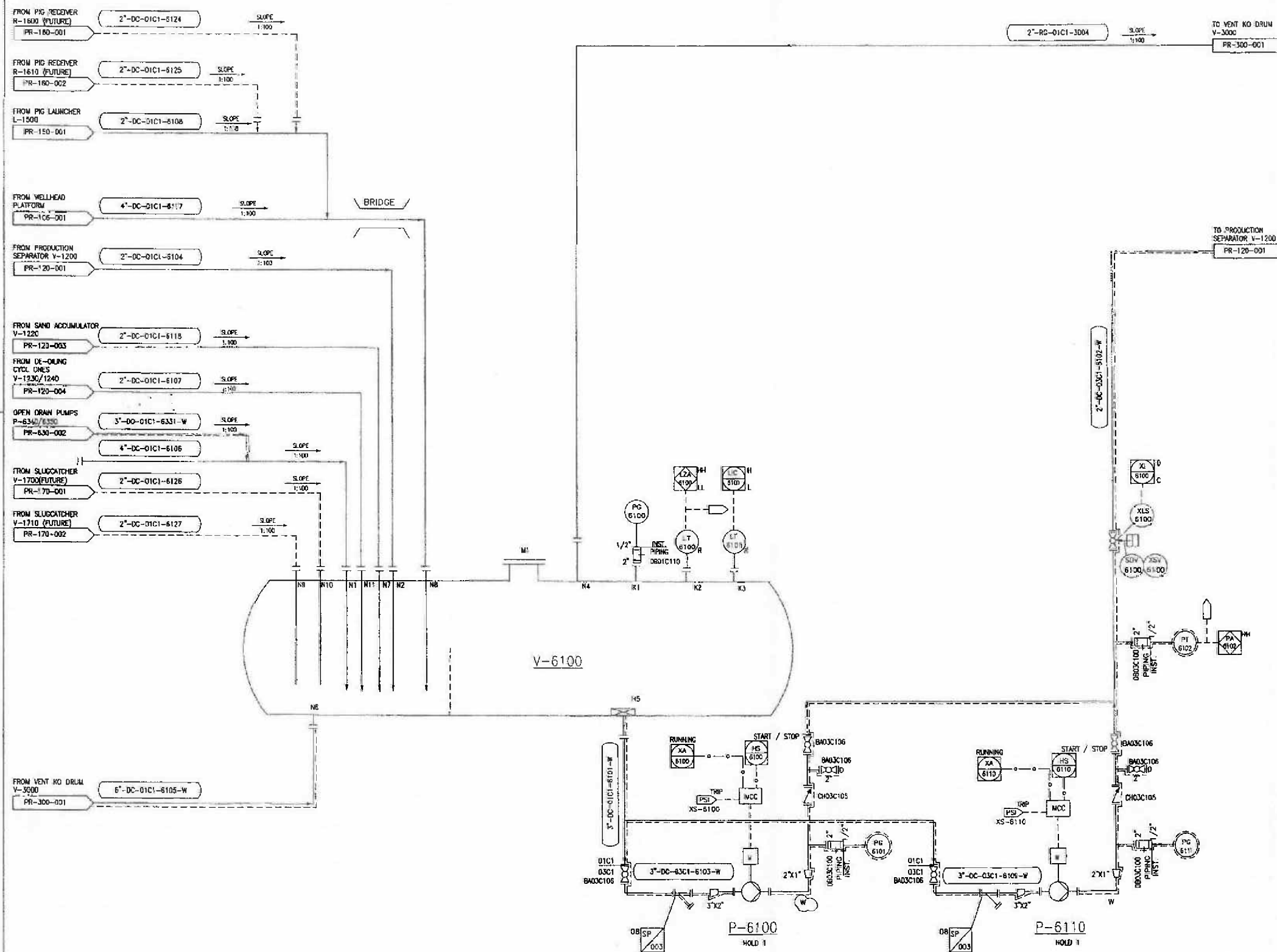
Q13A-PR-300

001

703

V-6100 CLOSED DRAIN VESSEL		
SIZE D X T	2000 X 2000	mm
CAPACITY	7	m ³
DESIGN PRESS	10	BAR
DESIGN TEMP	-20 / 50	°C
VESSEL TRIP	2" DC-01C1-6109	

P-6100/6110 CLOSED DRAIN PUMP		
TYPE	CENTRIFUGAL	
MEDIUM	OIL / WATER	
DENSITY	700-1000	kg/m ³
FLOW RATE	20	m ³ /h
DIFFERENTIAL HEAD	360	mm
DRIVER RATING	29	kW



NOTES

HOLDS

1. VENDOR INFORMATION: PUMPS.

REFERENCE DRAWINGS

REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION
F01	11-02-06	BAC	APPROVED FOR DESIGN	001			
F02	20-01-06	BAC	ISSUED FOR HAZOP	SV0			
F03	19-12-06	WVP	ISSUED FOR APPROVAL	SV0			

REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION

PLATFORM: AMSTEL FIELD DEVELOPMENT

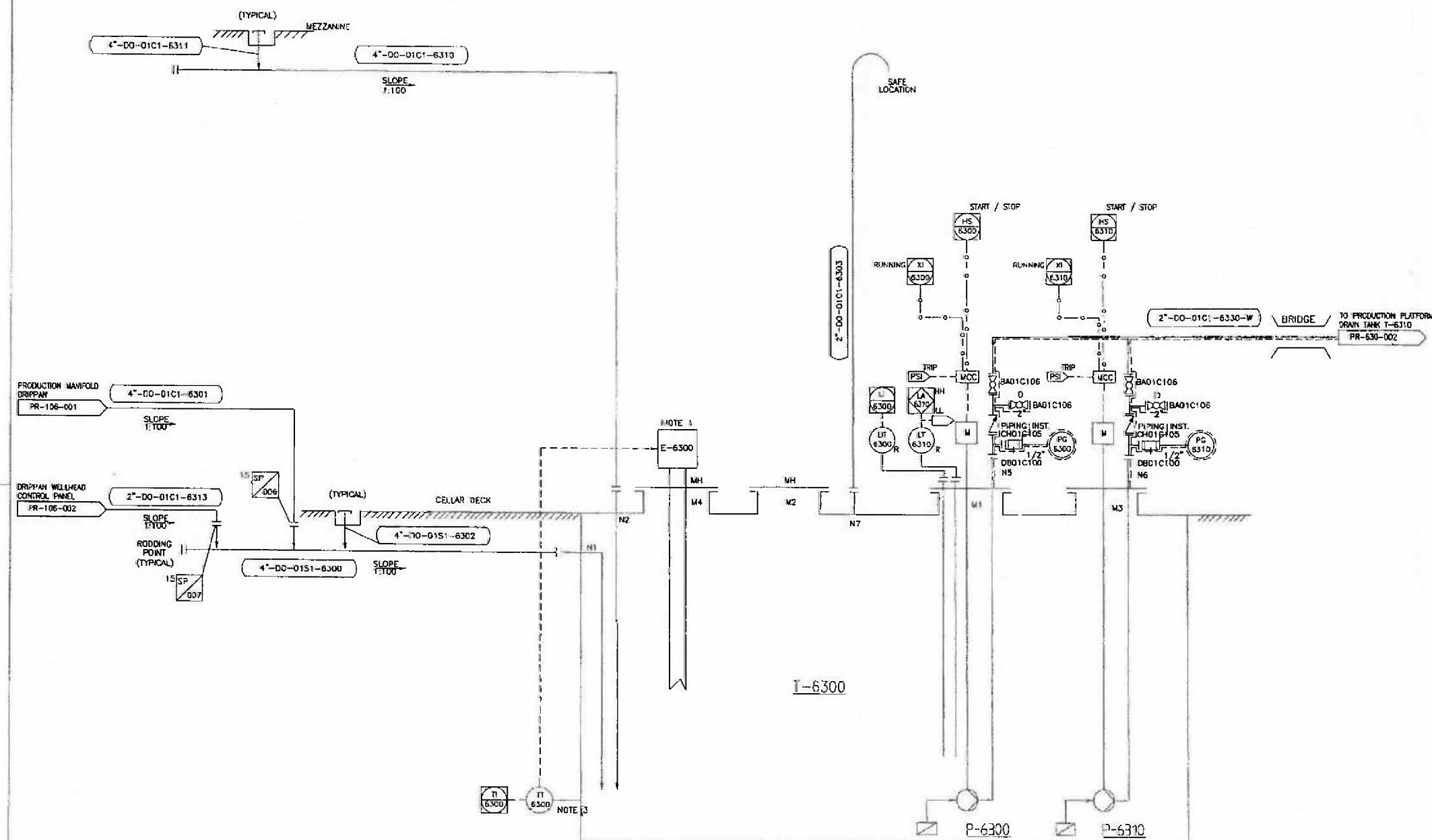
PRODUCTION PLATFORM P & ID
CLOSED DRAIN SYSTEM

SCALE	DRAWING NO.	SHEET NO.	REV
	Q13A-PR-610	001	A1

P-6300/6310 WELLHEAD DRAIN PUMP		
TYPE	CENTRIFUGAL	
MEDIUM	WATER	
DENSITY	1000	kg/m ³
FLOW RATE	5	m ³ /h
DIFFERENTIAL HEAD	25	mH ₂ O
DRIVER RATING	2	kw

T-6300 WELLHEAD DRAIN TANK		
SIZE	2500 X 2500 X 1600	
CAPACITY	10	m ³
DESIGN PRESS	LIQUID FILLED	BARG
DESIGN TEMP	50	°C
VESSEL TRIM	2" DD-01C1-6310	

E-6300 DRAIN TANK HEATER		
TYPE	ELECTRICAL	
DUTY	1000 T	kw



NOTES

1. ELECTRICAL HEATER FOR WINTERIZATION ONLY.

HOLDS

1. HOLD FOR VENDOR INFORMATION.

REFERENCE DRAWINGS

REV	DATE	BY	DESCRIPTION	CHKD	APPRD
001	11-02-09	SVU	APPROVED FOR DESIGN	SVU	RB
002	20-01-09	JSU	ISSUED FOR HAZOP	SVU	RB
003	10-12-08	WVF	ISSUED FOR APPROVAL	SVU	RB

HYDROCARBONS	
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PLATFORM: AMSTEL FIELD DEVELOPMENT

WELLHEAD PLATFORM P & ID
CONTAMINATED OPEN DRAIN SYSTEM

SCALE	DRAWING No.	SHEET No.	REV
	Q13A-PR-630	001	A1

DOC No.
QCPA000179

PIPING AND INSTRUMENT SYMBOLS						
LINE SYMBOLS	INSTRUMENT SYMBOLS	VALVE SYMBOLS	LINE & LINE EQUIPMENT SYMBOLS	CONT'D	CONT'D	CONT'D
MAJOR PROCESS FLOW LINE (1.0mm)	LOCAL MOUNTED INSTRUMENT	CHECK VALVE	FAIL OPEN	VIBRATION ABSORBER	DECK DRAIN (SEALED)	REMOTE SEAL
OBJECT OR MINOR PROCESS LINE (0.5mm)	LEVEL GAUGE MAGNETIC TYPE	BALL VALVE	FAIL CLOSE	BELLOW	DECK DRAIN	DOUBLE BLOCK AND BLEED BALL IN ALL BALL 2 4
MATCH LINE OR SCO OUTLINE	DIFF. PRESS. TYPE LEVEL TRANSMITTER FOUNDATION FIELD BUS	GLOBE VALVE	FLANGED VALVE	CONTINUATION (DRAWING NUMBER)	POSITIVE DISPLACEMENT METER	ANALYSER TRANSMITTER
PNEUMATIC LINE	RAJAR TYPE LEVEL TRANSMITTER	BUTTERFLY VALVE	WELD-END VALVE	LINE IDENTIFICATION	DENSITY METER	THERMAL INSULATION ON VESSEL/TANK
HYDRAULIC LINE	ULTRASONIC TYPE LEVEL TRANSMITTER	DELUGE VALVE	THREADED / SOCKET WELD VALVE	SLOPE INDICATION OF SLOPE ON LINE (SPECIFIED GRADIENT IF INDICATED)	FLOW STRAIGHTENING VANE	
CAPILLARY LINE	DCS PANEL PROCESS CONTROL FUNCTION	DOUBLE BLOCK AND BLEED VALVE BALL, NEEDLE, BALL TYPE	INSULATION WITH THICKNESS	PIPING SPECIAL	TURBINE METER	
ELECTRIC SIGNAL	SGS OR FOS SAFEGUARDING FUNCTION	DOUBLE BLOCK AND BLEED VALVE NEEDLE, NEEDLE, NEEDLE TYPE	FLOW DIRECTION	BARRIED TEE	VENTURE METER	
FUTURE LINE	AVAILABLE ON YOU	NEEDLE VALVE	FLANGE CONNECTION	SILENCER	CALIBRATION PCD	
INSTRUMENT GAS LINE	INSIDE PANEL	MEMBRANE VALVE	HUB CONNECTION	FLAME ARRESTOR	MAGFLO METER	
ELECTRICAL HEAT TRACED LINE SEE SHEET 4 FOR INSULATION CODES	ON UCP	3-WAY VALVE (T OR L BORE)	BLIND FLANGE	FILL PISTOL	VORTEX METER	
SERIAL LINK	INSIDE UCP	ANGLE VALVE	CAP (WELDED)	HOSE REEL	COROLUS FLOWMETER	
	ELEC. HEAT TRACED INSTRUMENT	CHOKE VALVE	CAP (SCREWED)	WATER SEPARATOR	ULTRASONIC FLOWMETER	
	SELECTOR SWITCH	ADJUSTABLE CHOKE VALVE	COUPLING	GAS MIXER	PITOT TUBE	
	TO/THRU TELEMETRY	PILOT OPERATED PRESSURE SAFETY VALVE	ADAPTOR (PIPE-TUBING)	CHEMICAL SEAL	ANNULAR FLOWMETER	
	SIGNAL TO DCS, SGS, UCP, FOS	SPRING OPERATED PRESSURE SAFETY VALVE	REDUCER	AIR LUBRICATOR	THERMAL DISPERSION FLOW METER	
	SIGNAL FROM DCS, SGS, UCP, FOS	VACUUM-PRESSURE SAFETY VALVE	CONTINUOUS DRAIN	LOCAL VENT TO ATMOSPHERE	ORIFICE PLATE	
	TO SGS EFFECT EBD	DIAPHRAGM ACTUATED VALVE	AUTOMATIC DRAIN	SIGHT GLASS	RETRACTABLE FLOW ORIFICE	
	TO SGS EFFECT ESD	SELF ACTING PRESSURE REGULATOR	SAMPLE CONNECTION	OPEN DRAIN	AIR INTAKE FILTER	
	TO SGS EFFECT PSI	CONTROL VALVE WITH POSITIONER FOUNDATION FIELD BUS	INSULATION SET	PULSATION DAMPER	VARIABLE AREA FLOW MEAS	
	TO SGS EFFECT TSI	PISTON OPERATED VALVE	SPECTACLE BUNG	TEMPORARY STRAINER	T-TYPE STRAINER	
	TO SGS EFFECT WSI	ELECTROMOTOR OPERATED VALVE	PROVISION FOR SPACE/SPACER	Y-TYPE STRAINER FLOW	VORTEX BREAKER	
	CONVERTOR CURRENT/PNEUMATIC FOUNDATION FIELD BUS	SOLENOID VALVE	BLEED RING	DUAL FILTER	MONITOR-NET	
	MCC MOTOR CONTROL CENTRE	VALVE WITH LOCKING DEVICE	TRANSITION PIECE	PERMANENT FILTER	HYDRANT-MET	
	FLOW COMPUTER	SELF CLOSING VALVE BY HEIGHT	FLEXIBLE CONNECTION	FILTER/STRAINER (CARTRIDGE TYPE)	CONNECTION TO UTILITY SYSTEM	
	NUCLEAR TYPE LEVEL TRANSMITTER		COMPENSATOR	RUPTURE DISK		

EQUIPMENT SYMBOLS					
M	ELECTRIC MOTOR DRIVE	PISTON PUMP (Pos. disp.)	RECIPROCATING COMPRESSOR	AR COOLER EXCHANGER	
H	HYDRAULIC MOTOR DRIVE	DIAPHRAGM PUMP (Pos. disp.)	SCREW COMPRESSOR	HELICAL MOTOR PUMP	
P	PNEUMATIC MOTOR DRIVE	SCREW PUMP (Pos. disp.)	DIAPHRAGM COMPRESSOR		
D	DIESEL MOTOR DRIVE	ROTARY VANE PUMP (POS. DISPL.)	SHELL AND TUBE EXCHANGER (U)		
T	GAS TURBINE DRIVE	MANUALLY OPERATED PUMP	SHELL AND TUBE EXCHANGER (Compact)		
G	GEAR	CENTRIFUGAL COMPRESSOR	PLATE EXCHANGER OR COMPACT HEAT EXCHANGER		
	CENTRIFUGAL PUMP	TURBINE DRIVEN COMPRESSOR	DOUBLE PIPE EXCHANGER		

NOTES



LEGEND

REFERENCE DRAWINGS

FIG	11-62-08	FIG	APPROVED FOR DESIGN	REV	1
FIG	20-01-05	FIG	CLIENTS COMMENTS INCORPORATED	REV	2
FIG	11-06	FIG	ISSUED FOR CLIENT APPROVAL	REV	3
REV	DATE	BY	DESCRIPTION	OK'D	APP'D



PLATFORM: AMSTEL FIELD DEVELOPMENT

TITLE: SYMBOLS AND ABBREVIATIONS FOR P&ID's

SCALE	DRAWING NO.	DEPT. NO.	REV
	013A-PR-001	002	A1

APP'D: DCPA080175



EQUIPMENT AND INSTRUMENT ABBREVIATIONS

EQUIPMENT AND INSTRUMENT ABBREVIATIONS				OTHERS	PROJECT RELATED REMARKS
A	G	N	T		
AXIAL FAN AG AIR LUBRICATOR AR	GENERATOR		T TANK TAH(H) TEMPERATURE ALARM HIGH (HIGH) TAL(L) TEMPERATURE ALARM LOW (LOW) TC TEMPERATURE CONTROLLER TCH TEMPERATURE CONTROL HIGH TCL TEMPERATURE CONTROL LOW TCV TEMPERATURE CONTROL VALVE TE TEMPERATURE ELEMENT TH THIEF HATCH TI TEMPERATURE INDICATOR TIC TEMPERATURE INDICATOR CONTROLLER TM TURBINE METER TR TEMPERATURE RECORDER TS TEMPERATURE SWITCH TSH(H) TEMPERATURE SWITCH HIGH (HIGH) TSL(L) TEMPERATURE SWITCH LOW (LOW) TSV THERMAL RELIEF VALVE TT TEMPERATURE TRANSMITTER TWV 3-WAY VALVE	A/S AIR SUPPLY AC AIR TO CLOSE AO AIR TO OPEN CAP CAPACITANCE TYPE CP CONTROL PANEL CO CLEAN-OUT DCS DISTRIBUTED CONTROL SYSTEM DE DE-ENERGISED DP DIFFERENTIAL PRESSURE TYPE EBD EMERGENCY BLOWDOWN ESD EMERGENCY SHUTDOWN FB FULL BORE FC FAIL CLOSE FO FAIL OPEN FGS FIRE & GAS SYSTEM FVSC FLOW METERING SUPERVISORY COMPUTER FSI FLOWLINE SHUT IN GAP ON/OFF CONTROL MODE H/R HYDRAULIC RETURN H/S HYDRAULIC SUPPLY HPPS HIGH INTEGRITY PRESS. PROTECT SYSTEM LC LOCK CLOSED LO LOCK OPEN LOC MANUAL/AUTOMATIC SYSTEM LA LOCAL PANEL MCC MOTOR CONTROL CENTRE MEDP MAIN EMERGENCY DISTRIBUTION PANEL MO MANUALLY OPERATED MOL MAIN OIL LINE MPA MANUATIC CONTROL PANEL MR MANUAL RESET MSPA MASTER SHUTDOWN PANEL MW MAHWAY NC NORMALLY CLOSED NO NORMALLY OPEN NE NORMALLY ENERGISED NPT NON PIPING TERMINATION OFF OFF LINE ON ON LINE PSI PROCESS SHUT-IN RAD RADAR TYPE RB REDUCED BORE SGS SAFE GUARDING SYSTEM TSI TRAIN SHUT IN TUN TUNNING FORK TYPE UC UTILITY CONNECTION ULT ULTRASONIC TYPE VDU VIDEO DISPLAY UNIT WC WATER CUT WSI WELL SHUT IN WSD WELL SHUTDOWN	
B	H	O			
BOILER BL BOTTLE BOH BLOW-OUT HATCH BPV BACK PRESSURE VALVE BV BREATHING VALVE	H HEATER HC HAND CONTROLLER HCV HAND CONTROL VALVE HE HEATING ELEMENT HOV HAND OPERATED VALVE HS HAND SWITCH HVCP HIGH VOLTAGE CONTROL PANEL	OVERHEAD COMBUSTION			
C	I	P	U		
COMPRESSOR CC CORROSION COUPON CD CONTINUOUS DRAINER CP CORROSION PROBE CR CORROSION RECORDER CS CONDENSOR CT CORROSION TRANSMITTER CU CHLORINE DOSING UNIT CVA CHOKE VALVE ADJUSTABLE CVP CHOKE VALVE POSITIVE	IAH(H) INTERFACE ALARM HIGH (HIGH) IAL(L) INTERFACE ALARM LOW (LOW) ILI INTERFACE LEVEL INDICATOR ILIC INTERFACE LEVEL INDICATOR CONTROLLER ILC INTERFACE LEVEL CONTROLLER ILG INTERFACE LEVEL GAUGE ILT INTERFACE LEVEL TRANSMITTER ILV INTERFACE LEVEL CONTROL VALVE ISH(H) INTERFACE SWITCH HIGH (HIGH) ISL(L) INTERFACE SWITCH LOW (LOW) I/H CURRENT TO HYDRAULIC TRANSDUCER I/P CURRENT TO PNEUMATIC TRANSDUCER	P PUMP (D)PAH(H) (DELTA) PRESSURE ALARM HIGH (HIGH) (D)PAL(L) (DELTA) PRESSURE ALARM LOW (LOW) (D)PC (DELTA) PRESSURE CONTROLLER PCH PRESSURE CONTROL HIGH PCL PRESSURE CONTROL LOW (D)PCV (DELTA)PRESSURE CONTROL VALVE PD PULSATION DAMPER PDM POSITIVE DISPLACEMENT METER (D)PI (DELTA) PRESSURE INDICATOR PP PIG PASSAGE INDICATOR (D)PIC (DELTA) PRESSURE INDICATOR CONTROLLER PG LOCAL PRESSURE GAUGE PPS PIG PASSAGE SWITCH (D)PR (DELTA) PRESSURE RECORDER (D)PS (DELTA) PRESSURE SWITCH (D)PSH(H) (DELTA) PRESSURE SHUTDOWN HIGH (HIGH) (D)PSL(L) (DELTA) PRESSURE SHUTDOWN LOW (LOW) PSPA PROCESS SHUT-IN PANEL PSV PRESSURE SAFETY VALVE (D)PT (DELTA) PRESSURE TRANSMITTER PY DCS FUNCTION	UV UV STERILIZER UCP UNIT CONTROL PANEL		
D	J	Q	V		
DRYER DV DELUGE VALVE	EJECTOR	QIA QUALITY INDICATOR ALARM HIGH/LOW QT QUALITY TRANSMITTER	V VESSEL VP VALVE POSITIONER VPSV VALVE POSITIONER TRANSMITTER VPS VENT STACK VSV VACUUM SAFETY VALVE		
E	K	R	W		
EXCHANGER EBDV EMERGENCY BLOWDOWN VALVE ESDV EMERGENCY SHUTDOWN VALVE E/P VOLTAGE TO PNEUMATIC E/H VOLTAGE TO HYDRAULIC		REBOILER RD RUPTURE DISK RO RESTRICTION ORIFICE ROV REMOTE OPERATED VALVE	W WELLHEAD CONTROL PANEL WH WATER HEATER WHCP WELLHEAD CONTROL PANEL WM WATER MAKER		
F	L	S	X		
FILTER FAH(H) FLOW ALARM HIGH (HIGH) FAL(L) FLOW ALARM LOW (LOW) FA FLAME ARRESTOR FC FLOW CONTROLLER FCT FLOW COMPUTER FCV FLOW CONTROL VALVE FE FLOW ELEMENT FI FLOW INDICATOR FIC FLOW INDICATING CONTROLLER FM FLOW METER FR FLOW RECORDER FS FLOW SWITCH FSU FLOATING SUCTION FSV FLOW STRAIGHTENING VANE FT FLOW TRANSMITTER FQI FLOW CUMULATIVE INDICATOR FQIR FLOW CUMULATIVE INDICATOR RECORDER	LAUNCHER PIG/SPHERE LAH(H) LEVEL ALARM HIGH (HIGH) LAL(L) LEVEL ALARM LOW (LOW) LB LAUNCHING BAR LC LEVEL CONTROLLER LCH(H) LEVEL CONTROL HIGH (HIGH) LCL(L) LEVEL CONTROL LOW (LOW) LCV LEVEL CONTROL VALVE LG LEVEL GAUGE (MAGNETIC) LI LEVEL INDICATOR LIC LEVEL INDICATOR CONTROLLER LR LEVEL RECORDER LS LEVEL SWITCH LSH(H) LEVEL SWITCH HIGH (HIGH) LSL(L) LEVEL SWITCH LOW (LOW) LT LEVEL TRANSMITTER	RECEIVER PIG/SPHERE SAH(H) SAND ALARM HIGH (HIGH) SC SAMPLE COLLECTOR SCV SELF CLOSING VALVE SDV SHUTDOWN VALVE SG SIGHT GLASS SCSSV SURFACE CONTROLLED SUBSEA VALVE SI SAND INDICATOR SP SAND PROBE SR SAND RECORDER SS SELECTOR SWITCH SSH(H) SAND SWITCH HIGH (HIGH) SSV SUBSEA VALVE ST SAND TRANSMITTER STR STRAINER SU SEWAGE UNIT SOV SOLENOID VALVE(CONTROL)	X MAS TREE XA MISCELLANEOUS ALARM XAH(H) MISCELLANEOUS ALARM HIGH (HIGH) XCV MISCELLANEOUS CONTROL VALVE XIC CLOSE INDICATION XIO OPEN INDICATION XLSC LIMIT SWITCH CLOSE XLSO LIMIT SWITCH OPEN XPSC PROXIMITY SWITCH CLOSE XPSO PROXIMITY SWITCH OPEN XS MISCELLANEOUS SWITCH XSH(H) MISCELLANEOUS SWITCH HIGH (HIGH) XSV SOLENOID VALVE XT MISCELLANEOUS TRANSMITTER XEV QUICK EXHAUST VALVE XV DCS OPERATED VALVE XY DCS FUNCTION		
M	M	Y	Z		
MIXER MCC MOTOR CONTROL CENTER MOV MOTOR OPERATED VALVE			PACKAGE Z1 POSITION INDICATION ZT POSITION TRANSMITTER		

FO3	14-02-09	FSC	APPROVED FOR DESIGN	SVD	RA
FO2	20-01-08	JVE	ISSUE FOR HAZOP	SVD	RA
FO1	10-08	SVD	ISSUE FOR CLIENT APPROVAL	SVD	RA
REV	DATE	BY	DESCRIPTION	INITIALS	APP'D
SECTION No.					
PLATFORM: AMSTEL FIELD DEVELOPMENT					
TITLE: SYMBOLS AND ABBREVIATIONS FOR P & ID's					
SCALE:	DRAWING No.	SHEET No.	SIZE:		
		003	A1		
JOB No.:	Q13A-PR-001		REV:		
OGPA080179			FO3		

PROCESS AND INSTRUMENT TAGNUMBERING

EQUIPMENT ABBREVIATION	SYSTEM NUMBER	EQUIPMENT SYSTEM NUMBER	SYSTEM NUMBER	EQUIPMENT SYSTEM NUMBER	SYSTEM NUMBER	EQUIPMENT SYSTEM NUMBER	VALVE LABEL COMPOSITION	PROJECT RELATED REMARKS
A FAN	0001	WELLHEAD CONTROL PANEL		GAS TREATMENT (GLYCOL SYSTEM)	9840	EQUIPMENT 2nd FLOOR		PRODUCTION PLATFORM SUFFIX -AP LETTER: WELLHEAD PLATFORM SUFFIX -AW LETTER:
B BOILER	0010	WELL 1 (INCLUDING XMAS TREE)		SPACE	9850	EQUIPMENT 3rd FLOOR		
C COMPRESSOR	0020	WELL 2 (INCLUDING XMAS TREE)		FUEL SYSTEMS	9860	EQUIPMENT 4th FLOOR		
D DRYER	0030	WELL 3 (INCLUDING XMAS TREE)	5000	FUEL OIL		UTILITY SYSTEMS (CRANE/SURVIVAL BOAT(S)/ETC.)		
E EXCHANGER	0040	WELL 4 (INCLUDING XMAS TREE)	5050	FUEL GAS	9900	SURVIVAL BOAT 1		
F FILTER	0050	WELL 5 (INCLUDING XMAS TREE)		POWER GENERATION	9910	SURVIVAL BOAT 2		
G GENERATOR	0060	WELL 6 (INCLUDING XMAS TREE)	5100	GAS ENGINE DRIVEN MAIN POWER GENERATORS	9920	SURVIVAL BOAT 3		
H HEATER	0070	WELL 7 (INCLUDING XMAS TREE)	5200	DIESEL ENGINE DRIVEN MAIN POWER GENERATORS	9940	FAST RESCUE BOAT		
I (not used)	0080	WELL 8 (INCLUDING XMAS TREE)	5300	DIESEL ENGINE DRIVEN EMERGENCY GENERATORS	9950	CRANE MAIN PLATFORM	VALVE TYPE BALL VALVE BA- GLOBE VALVE CL- CHECK VALVE CH- NEEDLE VALVE NE- BUTTERFLY VALVE BU- GATE VALVE GA- DBB VALVE DB-	
J (not used)	0090	WELL 9 (INCLUDING XMAS TREE)	5400	GAS TURBINE DRIVEN MAIN POWER GENERATORS	9960	CRANE WELLHEAD PLATFORM		
K (not used)	0100	GAS COOLER/SEA WATER PUMPS FOR GAS COOLING	5500	OIL OR DIESEL TURBINE DRIVEN MAIN POWER GENERATORS	9970	HELICOPTER STARTER		
L LAUNCHER	0200	PRODUCTION SEPARATOR/LIQUID-LIQUID SEPARATOR		POWER TRANSFORMATION				
M MIXER	0300	FILTER COALESCE	5600	LOW VOLTAGE TRANSFORMERS			INSULATION CODE A100(B) ONLY FOR ACOUSTICAL INSULATION: IDENTIFICATION OF TYPE (A, B, OR C) INSULATION THICKNESS INSULATION IDENTIFICATION	SELECTION NR.
N (not used)	0400	GLYCOL CONTACTOR TOWER	5700	MEDIUM VOLTAGE TRANSFORMERS				
O (not used)	0500	OUTGOING PIPELINE SYSTEM/FISCAL METERING	5800	HIGH VOLTAGE TRANSFORMERS				
P PUMP	0600	INCOMING PIPELINE SYSTEM/ALLOCATION METERING	5900	-				
Q (not used)	0700	RECEIVING SEPARATOR		DRAIN SYSTEMS (OIL)			MATERIAL DESIGNATION DUPLEX (UNS S31803) -D HIGH YIELD CARBON STEEL -H STAINLESS STEEL (A 312 TP 316L) -S LOW TEMP. CARBON (A 333 G-B) -L CARBON (A 106 Gr.B) -C GALVANIZED CARBON (A 106 Gr.B) -G COPPER -U PLASTICS -P CLINFOR (CUN/90/10) -F SUPER DUPLEX (UNS S32750) -N	PRESSURE RATING 125 lbs ANSI -00 5000 PSI API -S1 150 lbs ANSI -01 10000 PSI API -S2 300 lbs ANSI -03 15000 PSI API -S3 600 lbs ANSI -06 20000 PSI API -S4 900 lbs ANSI -09 1500 lbs ANSI -15 3000/6000 psi 13R'D X65 API -S5 2500 lbs ANSI -25 06P
R RECEIVER	0800	DEPLETION COMPRESSOR		CLOSED DRAIN SYSTEM				
S STACK	0900	TEST SEPARATOR	6000	OPEN DRAIN SYSTEM (CONTAMINATED)				
T TANK	1001	WELLHEAD CONTROL PANEL	6100	OPEN DRAIN SYSTEM (NON-CONTAMINATED)				
U (not used)	1010	WELL 1 (INCLUDING XMAS TREE)	6200	DRAIN SYSTEMS (GAS)			SERVICE DESIGNATION PROCESS GAS -PG PROCESS LIQUID -PL NITROGEN GAS -IG RELIEF GAS -RG PROCESS OIL -PO RELIEF LIQUID -RL FUEL GAS -FG DRAIN CLOSED -DC DRAIN OPEN -DO DIESEL FUEL -DF HELI FUEL -HF CHEMICAL BIOFOULING INHIBITOR -CB CHEMICAL DEMULSIFIER -CD CHEMICAL FLOCCULANT -CF CHEMICAL GLYCOL -CG CHEMICAL SCALE INHIBITOR -CS CHEMICAL CORROSION INHIBITOR -CI CHEMICAL METHANOL -CM CHEMICAL KINETIC -CK CHEMICAL POUR POINT -CP CHEMICAL LUBE OIL -CL AIR INSTRUMENT -AI AIR EMERGENCY -AE AIR WORK -AW AIR START -AS WATER INJECTION -WI WATER FIRE FIGHTING -WF WATER SERVICE -WS WATER COOLING -WC WATER HEATING -WH WATER POTABLE -WP SWAGELOCK / AUTOCLAVE SERVICE -SS	PIPE CLASS 06 D 1 SEQUENCE NUMBER MATERIAL DESIGNATION PIPING CLASS PRESSURE RATING
V VESSEL	1020	WELL 2 (INCLUDING XMAS TREE)	6300	SEWAGE TREATMENT				
W (not used)	1030	WELL 3 (INCLUDING XMAS TREE)	6400	CLOSED DRAIN SYSTEM				
X XMAS TREE	1040	WELL 4 (INCLUDING XMAS TREE)	6500	OPEN DRAIN SYSTEM (CONTAMINATED)				
Y (not used)	1050	WELL 5 (INCLUDING XMAS TREE)	6600	OPEN DRAIN SYSTEM (NON-CONTAMINATED)			EQUIPMENT NUMBER COMPOSITION V- 1200 SEQUENTIAL NUMBER EQUIPMENT SYSTEM IDENTIFICATION EQUIPMENT ABBREVIATION	LINE LABEL COMPOSITION 12"-PG-06D1-1299-A INSULATION IDENTIFICATION LINE NUMBER EQUIPMENT SYSTEM DESIGNATION PIPE CLASS SERVICE DESIGNATION SIZE (INCHES)
Z PACKAGE UNIT	1060	WELL 6 (INCLUDING XMAS TREE)	6700	FUELS/CHEMICALS/LUBRICANTS				
	1070	WELL 7 (INCLUDING XMAS TREE)	6800	DIESEL FUEL				
	1080	WELL 8 (INCLUDING XMAS TREE)	6900	HELI FUEL				
	1090	WELL 9 (INCLUDING XMAS TREE)	7000	LUBE OIL			INSTRUMENT LABEL COMPOSITION PAHH 1201 INSTRUMENT ABBREVIATION SEQUENTIAL NUMBER EQUIPMENT IDENTIFICATION	
	1100	WELL WATER INJECTION SYSTEM	7100	DEMULSIFIER				
	1200	PRODUCTION SEPARATOR/LIQUID-LIQUID SEPARATOR	7200	ANTI SCALING				
	1300	-	7300	CORROSION INHIBITOR				
	1400	-	7400	METHANOL			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	1500	OUTGOING PIPELINE SYSTEM/FISCAL METERING	7500	KINETIC HYDRATE INHIBITOR (KHI)				
	1600	INCOMING PIPELINE SYSTEM/ALLOCATION METERING	7600	POUR POINT SUPPRESSANT				
	1700	RECEIVING SEPARATOR	7700	FLOCCULANT				
	1800	CRUDE OIL TRANSFER PUMPS	7800	OXYGEN SCAVENGER			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	1900	TEST SEPARATOR	7900	BIO-FOULING INHIBITOR				
	2000	LIQUID HANDLING (OIL)	8000	AIR/INERT GAS SYSTEMS				
	2100	OIL FLASH VESSEL	8100	EMERGENCY AIR SYSTEM				
	2200	OIL STORAGE	8200	INSTRUMENT AIR SYSTEM			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	2300	OIL TRANSFER	8300	WORK AIR SYSTEM				
	2400	SPACE	8400	START AIR SYSTEM				
	2500	SKIMMED OIL	8500	INERT GAS SYSTEM 1				
	2600	LIQUID HANDLING (GAS)	8600	INERT GAS SYSTEM 2			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	2700	CONDENSATE FLASH	8700	CO2 BOTTLE SYSTEM VENTSTACK HP				
	2800	CONDENSATE STORAGE	8800	CO2 BOTTLE SYSTEM VENTSTACK LP				
	2900	CONDENSATE TRANSFER	8900	FIRE WATER				
	3000	CONDENSATE LAUNCHER/RECEIVER	9000	DIESEL ENGINE DRIVEN FIRE WATER PUMP 1			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	3100	SPACE	9050	DIESEL ENGINE DRIVEN FIRE WATER PUMP 2				
	3200	VENT SYSTEM(OIL)	9100	ELECTRIC MOTOR DRIVEN FIRE WATER PUMP 1				
	3300	LP VENT SYSTEM	9110	ELECTRIC MOTOR DRIVEN FIRE WATER PUMP 2				
	3400	LP VENT EXHAUST	9200	DELUGE SYSTEM			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	3500	HP VENT SYSTEM	9300	SWEET WATER SYSTEM				
	3600	HP VENT EXHAUST	9350	SPRINKLER SYSTEM				
	3700	SPACE	9400	MISCELLANEOUS				
	3800	VENT SYSTEM(GAS)	9500	WATER (SERVICE/COOLING/HEATING/POTABLE)			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	3900	LP VENT SYSTEM	9600	SERVICE WATER SYSTEM				
	4000	LP VENT EXHAUST	9700	COOLING WATER SYSTEM (SECONDARY)				
	4100	HP VENT SYSTEM		HEATING WATER SYSTEM				
	4200	HP VENT EXHAUST		HVAC (HEATING VENTILATION AIR CONDITIONING)			EQUIPMENT SYSTEM DESIGNATION WATER (SERVICE/COOLING/HEATING/POTABLE) SERVICE WATER SYSTEM COOLING WATER SYSTEM (SECONDARY) HEATING WATER SYSTEM HVAC (HEATING VENTILATION AIR CONDITIONING) MAIN AIR HANDLING UNIT MAIN COOLING UNIT EQUIPMENT GROUND FLOOR EQUIPMENT 1st FLOOR	
	4300	SPACE	9800	MAIN AIR HANDLING UNIT				
	4400	SPACE	9810	MAIN COOLING UNIT				
			9820	EQUIPMENT GROUND FLOOR				
			9830	EQUIPMENT 1st FLOOR				

FO3	15-07-09	FSC	APPROVED FOR DESIGN	SVO	IRB
FO2	20-01-09	JYE	ISSUE FOR HAZOP	SVO	IRB
FO1	10-08	SVO	ISSUE FOR CLIENT APPROVAL	SVO	IRB
REV	DATE	BY	DESCRIPTION	CHKD	APPD
SECTION NO.					
PLATFORM: AMSTEL FIELD DEVELOPMENT					
TITLE: SYMBOLS AND ABBREVIATIONS FOR P & ID's					
SCALE:	DRAWING No.:	SHEET No.:	SE. A1		
JOB No.:	Q13A-PR-001	004	FO3		
JOB No.:	Q0FA080175	FO2			