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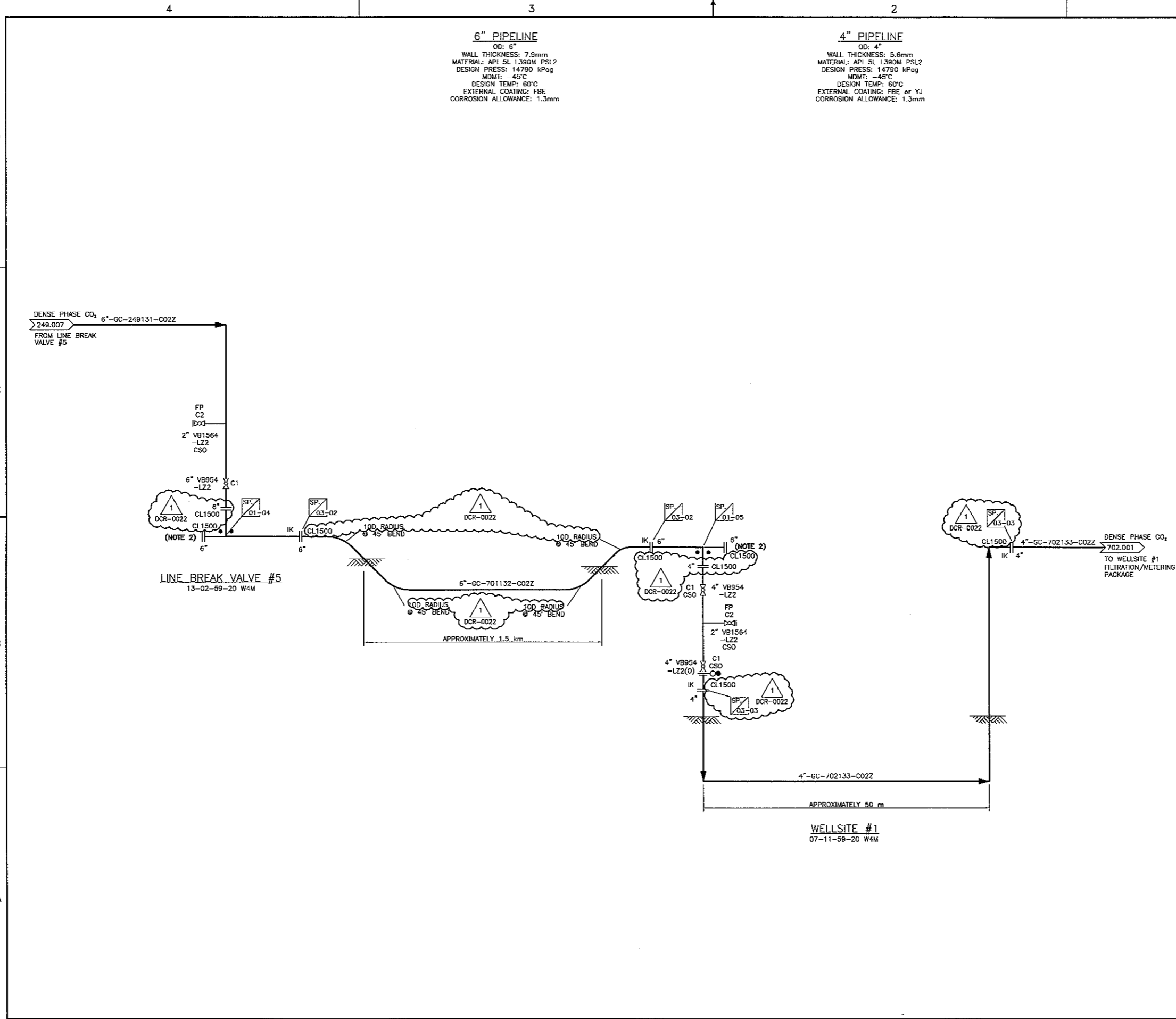
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**6" PIPELINE**  
 OD: 6"  
 WALL THICKNESS: 7.9mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE  
 CORROSION ALLOWANCE: 1.3mm

**4" PIPELINE**  
 OD: 4"  
 WALL THICKNESS: 5.6mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE or YJ  
 CORROSION ALLOWANCE: 1.3mm

- NOTES**
1. DELETED.
  2. PIGGING PROVISIONS.
  3. DELETED.
  4. ALL VALVES EXTERIOR TO FENCED/SECURE SITES ARE TO BE CHAINED AND LOCKED.

KEY PLAN

REFERENCE DRAWINGS

**TOYO ENGINEERING CANADA LTD.**

TOYO-CA DWG. No.		CAD FILE	
09223-1-DG-BC-00011.01		D1101-136M	
O	12 NOV 09	ISSUED FOR CONSTRUCTION	DIM M/JM/KVM/GJJ
F	12 AUG 10	RE-ISSUED FOR HAZOP AUG 28/12	DIM M/JM/KVM/GJJ
E	12 JUL 23	RE-ISSUED FOR HAZOP AUG 03/12	RE DIM M/JM/GJJ
D	12 JAN 10	RE-ISSUED FOR DESIGN	DIM INES/DXL
C	11 DEC 12	ISSUED FOR DESIGN	DDG/INES/SCA
B	11 JUL 13	ISSUED FOR HAZOP	DDG/AGL/MCS
I	13 MAR 22	RE-ISSUED FOR CONSTRUCTION	DDG/AGL/MCS
REV	ISSUED DATE	DESCRIPTION	DWN CHKD ENG APP APP QUIT APP



TOYO ENGINEERING CANADA LTD.  
 APEGGA PERMIT P2034

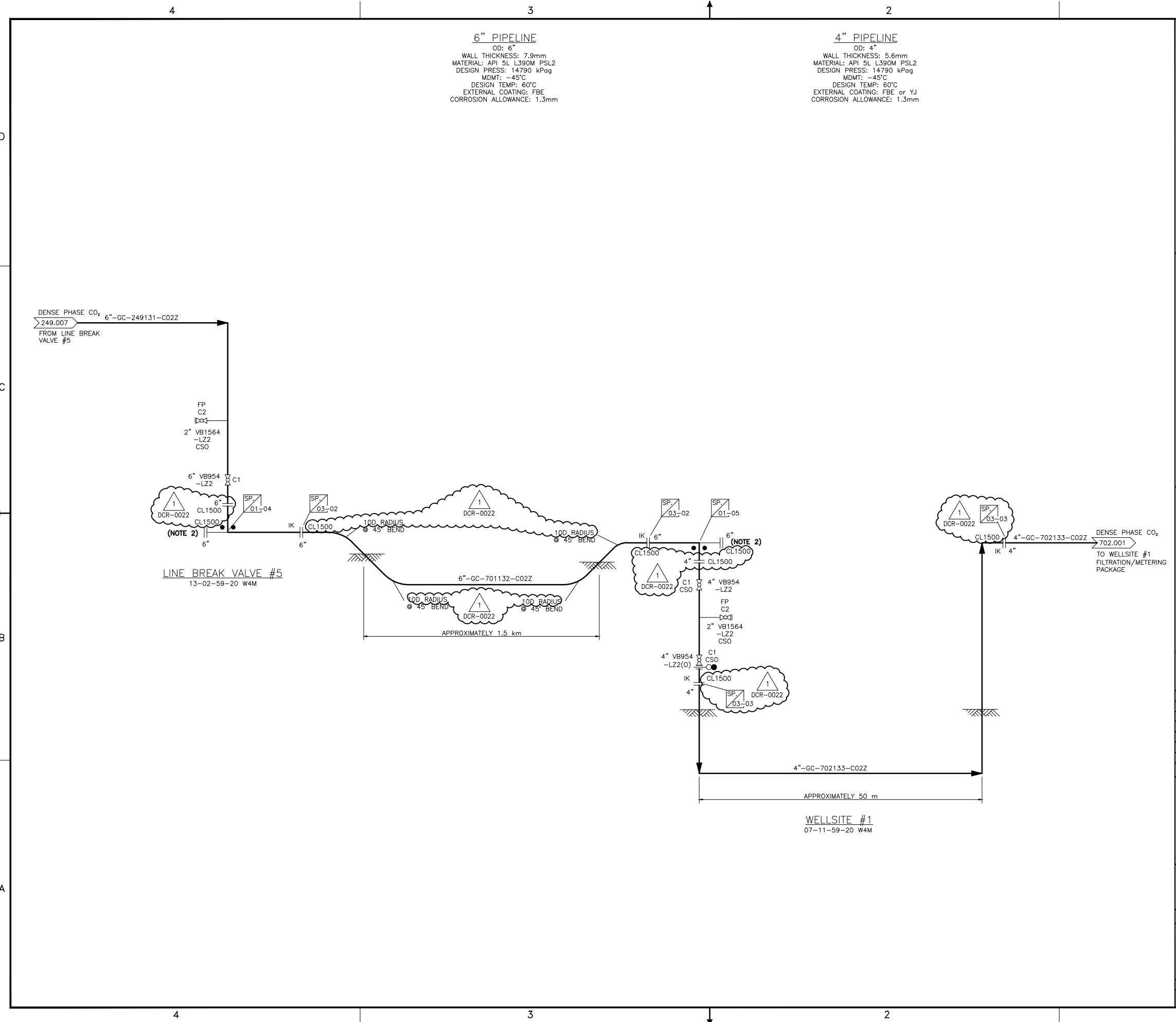


SHELL CANADA

ALBERTA -

QUEST CCS PROJECT  
 WELLSITE #1  
 LATERAL PIPELINE  
 PIPING & INSTRUMENTATION DIAGRAM (P&ID)

SCALE: NTS	REV: 1
SHELL DWG NO.: 701.0000.000.041.001	



**6" PIPELINE**  
 OD: 6"  
 WALL THICKNESS: 7.9mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE  
 CORROSION ALLOWANCE: 1.3mm

**4" PIPELINE**  
 OD: 4"  
 WALL THICKNESS: 5.6mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE or YJ  
 CORROSION ALLOWANCE: 1.3mm

- NOTES**
1. DELETED.
  2. PIGGING PROVISIONS.
  3. DELETED.
  4. ALL VALVES EXTERIOR TO FENCED/SECURE SITES ARE TO BE CHAINED AND LOCKED.

**KEY PLAN**

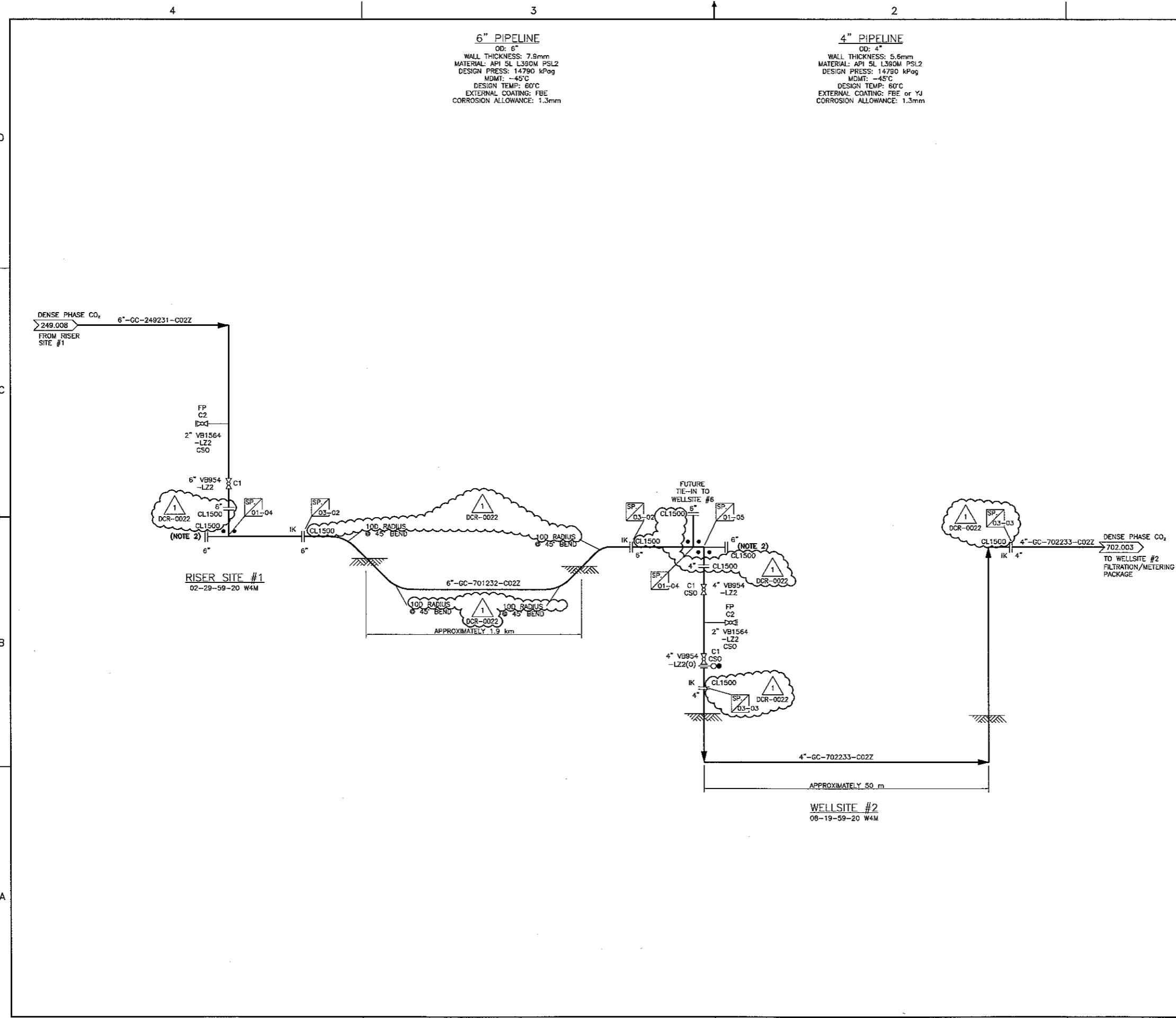
**REFERENCE DRAWINGS**

		<b>TOYO ENGINEERING CANADA LTD.</b>	
TOYO-CA DWG. No.	09223-1-DG-BC-00011.01	CAD FILE	01101-136M
REV	ISSUED DATE	DESCRIPTION	DWN CHKD ENG APP APP CLNT APP
D	12 NOV 09	ISSUED FOR CONSTRUCTION	DIM MJM KVM GJJ
F	12 AUG 16	RE-ISSUED FOR HAZOP AUG 29/12	DIM MJM KVM GJJ
E	12 JUL 23	RE-ISSUED FOR HAZOP AUG 03/12	RE DIM KVM GJJ
D	12 JAN 10	RE-ISSUED FOR DESIGN	DIM NES DXL
C	11 DEC 12	ISSUED FOR DESIGN	DDB NES SCA
B	11 JUL 13	ISSUED FOR HAZOP	DDB JGL WCS
1	13 MAR 22	RE-ISSUED FOR CONSTRUCTION	CBC JJK KVM



ALBERTA -  
**QUEST CCS PROJECT**  
**WELLSITE #1**  
**LATERAL PIPELINE**  
**PIPING & INSTRUMENTATION DIAGRAM (P&ID)**

SHELL DWG NO.:	701.0000.000.041.001	REV:	1
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**6" PIPELINE**  
 OD: 6"  
 WALL THICKNESS: 7.9mm  
 MATERIAL: API 5L L360M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE  
 CORROSION ALLOWANCE: 1.3mm

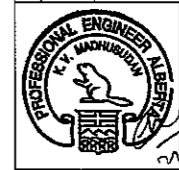
**4" PIPELINE**  
 OD: 4"  
 WALL THICKNESS: 5.6mm  
 MATERIAL: API 5L L360M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE or YJ  
 CORROSION ALLOWANCE: 1.3mm

- NOTES**
1. DELETED.
  2. PIGGING PROVISIONS.
  3. DELETED.
  4. ALL VALVES EXTERIOR TO FENCED/SECURE SITES ARE TO BE CHAINED AND LOCKED.

KEY PLAN

REFERENCE DRAWINGS

TOYO ENGINEERING CANADA LTD.				
TOYO-CA DWG. No.	CAO FILE			
09223-1-DG-BC-00012.01	01201-136P			
0	12 NOV 09	ISSUED FOR CONSTRUCTION	DIM/MJM/KVM/GJJ	
F	12 AUG 16	RE-ISSUED FOR HAZOP AUG 20/12	DIM/MJM/KVM/GJJ	
E	12 JUL 23	RE-ISSUED FOR HAZOP AUG 03/12	RE DIM KVM/GJJ	
D	12 JAN 10	RE-ISSUED FOR DESIGN	DIM/NES/DXL	
C	11 DEC 12	ISSUED FOR DESIGN	DDB/JGL/MCS	
B	11 JUL 13	ISSUED FOR HAZOP	DDB/JGL/MCS	
I	13 MAR 22	RE-ISSUED FOR CONSTRUCTION	DDB/JGL/MCS	
REV	ISSUED DATE	DESCRIPTION	DWR	CHKD
			ENG	APP
			APP	APP
			QMT	APP



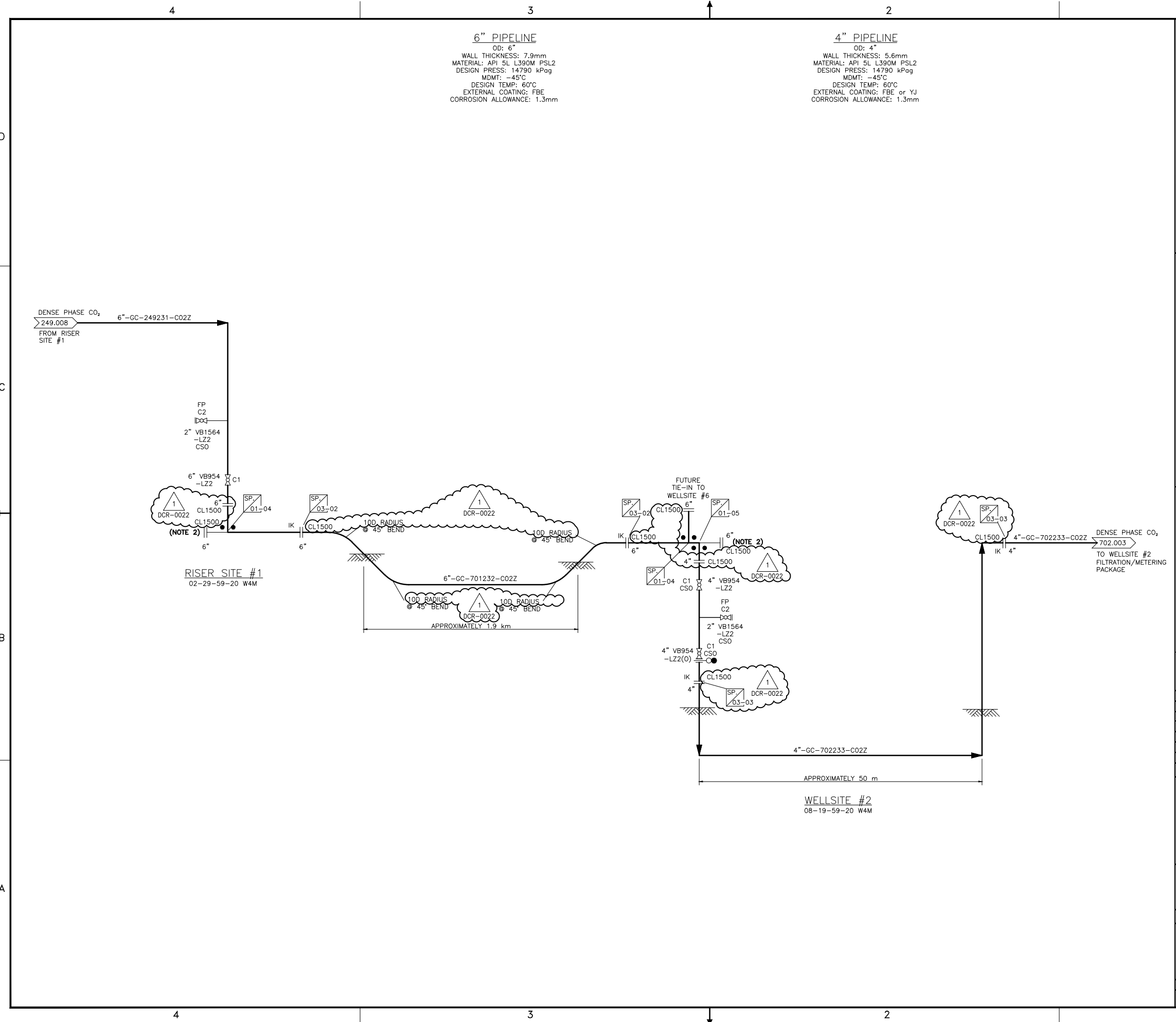
TOYO ENGINEERING CANADA LTD.  
 APEGGA PERMIT P2034

**SHELL CANADA**

ALBERTA -

QUEST CCS PROJECT  
 WELLSITE #2  
 LATERAL PIPELINE  
 PIPING & INSTRUMENTATION DIAGRAM (P&ID)

SCALE: NTS  
 SHELL DWG NO.: 701.0000.000.041.002 REV. 1



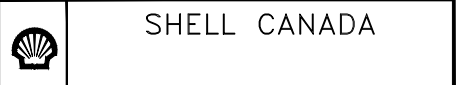
- NOTES**
1. DELETED.
  2. PIGGING PROVISIONS.
  3. DELETED.
  4. ALL VALVES EXTERIOR TO FENCED/SECURE SITES ARE TO BE CHAINED AND LOCKED.

**KEY PLAN**

**REFERENCE DRAWINGS**

		<b>TOYO ENGINEERING CANADA LTD.</b>	
TOYO-CA DWG. No.	<b>09223-1-DG-BC-00012.01</b>	CAD FILE	01201-136P
D	12 NOV 09	ISSUED FOR CONSTRUCTION	DIM MJM/KVM/GJJ
F	12 AUG 16	RE-ISSUED FOR HAZOP AUG 29/12	DIM MJM/KVM/GJJ
E	12 JUL 23	RE-ISSUED FOR HAZOP AUG 03/12	RE DIM KVM/GJJ
D	12 JAN 10	RE-ISSUED FOR DESIGN	DIM NES/DXL
C	11 DEC 12	ISSUED FOR DESIGN	DDB NES/SCA
B	11 JUL 13	ISSUED FOR HAZOP	DDB JGL/WCS
1	13 MAR 22	RE-ISSUED FOR CONSTRUCTION	CBC JJK/KVM
REV	ISSUED DATE	DESCRIPTION	DWN CHKD ENG APP APP CLNT APP

TOYO ENGINEERING CANADA LTD.  
 APEGGA PERMIT P2034

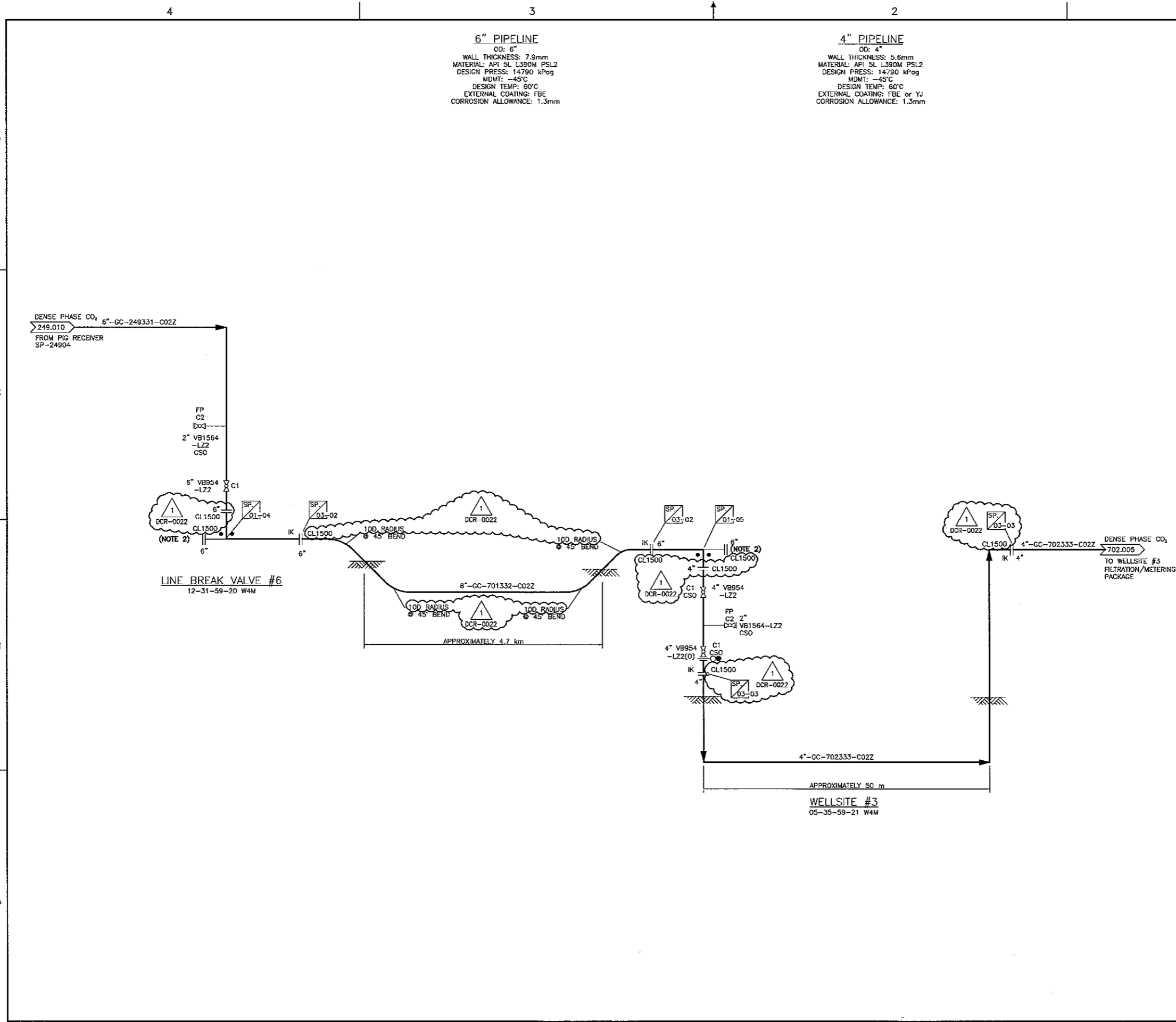


ALBERTA -

**QUEST CCS PROJECT**  
**WELLSITE #2**  
**LATERAL PIPELINE**  
**PIPING & INSTRUMENTATION DIAGRAM (P&ID)**

SCALE: NTS	
SHELL DWG NO.:	701.0000.000.041.002
REV.	1

01201-136P



**6" PIPELINE**  
 OD: 6"  
 WALL THICKNESS: 7.8mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPog  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE  
 CORROSION ALLOWANCE: 1.3mm

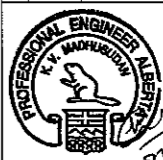
**4" PIPELINE**  
 OD: 4"  
 WALL THICKNESS: 5.6mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPog  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE or YJ  
 CORROSION ALLOWANCE: 1.3mm

- NOTES**
1. DELETED.
  2. PIGGING PROVISIONS.
  3. DELETED.
  4. ALL VALVES EXTERIOR TO FENCED/SECURE SITES ARE TO BE CHAINED AND LOCKED.

**KEY PLAN**

**REFERENCE DRAWINGS**

<b>TOYO ENGINEERING CANADA LTD.</b>		TOYO-CA DWG. NO.	09223-1-06-BC-00013.01	CD FILE	01301-1360			
REV	ISSUED DATE	DESCRIPTION	DWN	CHKD	ENG	APP	APP	DATE
C	12 NOV 09	ISSUED FOR CONSTRUCTION	DIM	NJM	KVM	GJJ		
F	12 AUG 16	RE-ISSUED FOR HAZOP AUG 28/12	DIM	NJM	KVM	GJJ		
E	12 JUL 23	RE-ISSUED FOR HAZOP AUG 03/12	RE	DIM	KVM	GJJ		
D	12 JAN 10	RE-ISSUED FOR DESIGN	DIM	NES	DXL			
C	11 DEC 12	ISSUED FOR DESIGN	DOB	JGL	MCS			
B	11 JUL 13	ISSUED FOR HAZOP	DOB	JGL	MCS			
1	13 MAR 22	RE-ISSUED FOR CONSTRUCTION	CBC	JKL	AP			



TOYO ENGINEERING CANADA LTD.  
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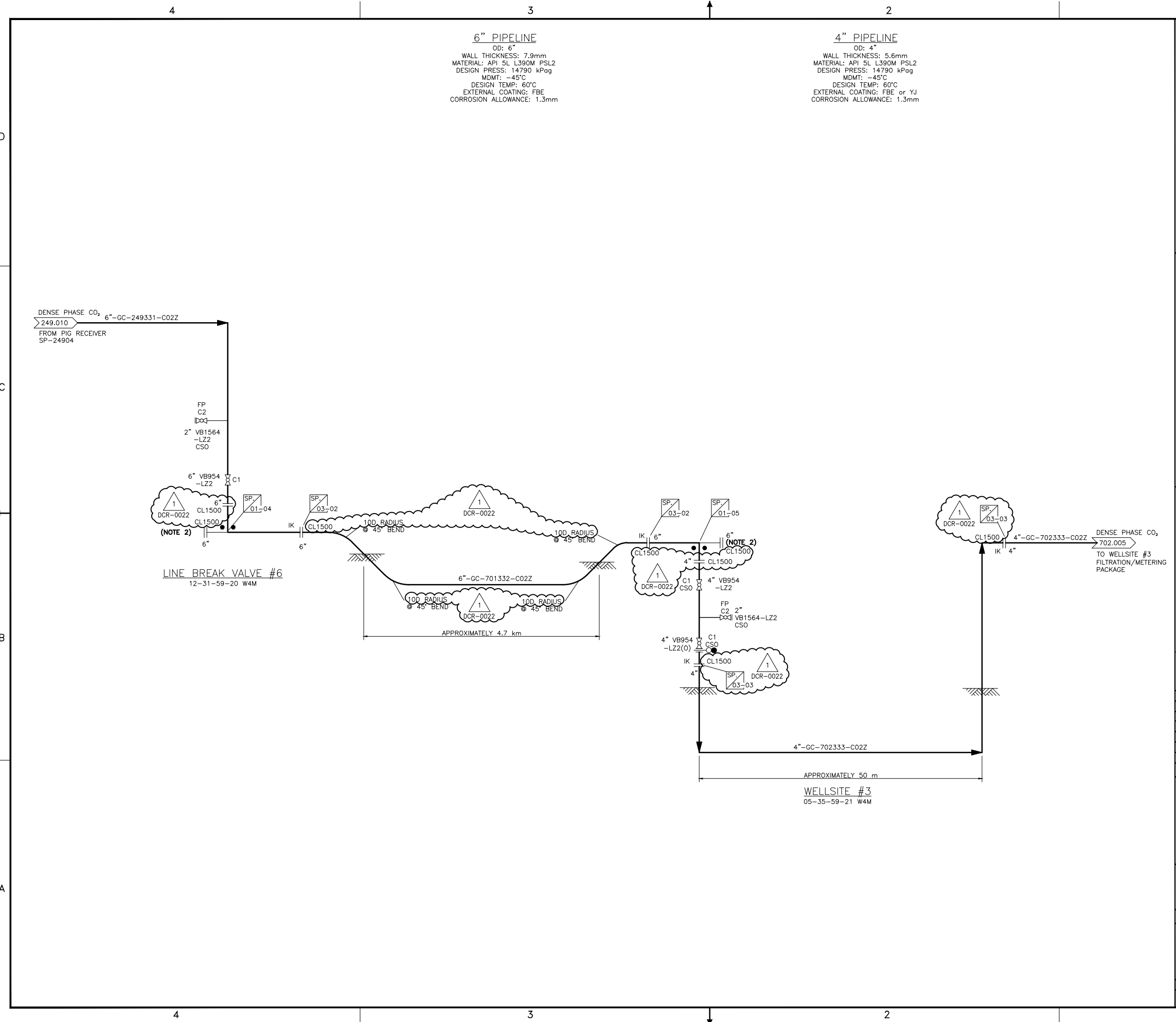


**SHELL CANADA**

ALBERTA -

QUEST CCS PROJECT  
 WELLSITE #3  
 LATERAL PIPELINE  
 PIPING & INSTRUMENTATION DIAGRAM (P&ID)

SCALE: NTS  
 SHELL DWG NO.: 701.0000.000.041.003  
 REV. 1



**6" PIPELINE**  
 OD: 6"  
 WALL THICKNESS: 7.9mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE  
 CORROSION ALLOWANCE: 1.3mm

**4" PIPELINE**  
 OD: 4"  
 WALL THICKNESS: 5.6mm  
 MATERIAL: API 5L L390M PSL2  
 DESIGN PRESS: 14790 kPag  
 MDMT: -45°C  
 DESIGN TEMP: 60°C  
 EXTERNAL COATING: FBE or YJ  
 CORROSION ALLOWANCE: 1.3mm

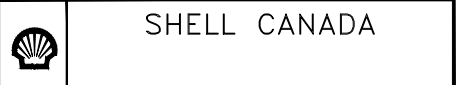
- NOTES**
1. DELETED.
  2. PIGGING PROVISIONS.
  3. DELETED.
  4. ALL VALVES EXTERIOR TO FENCED/SECURE SITES ARE TO BE CHAINED AND LOCKED.

**KEY PLAN**

**REFERENCE DRAWINGS**

		<b>TOYO ENGINEERING CANADA LTD.</b>	
TOYO-CA DWG. No.	<b>09223-1-DG-BC-00013.01</b>	CAD FILE	01.301-136Q
D	12 NOV 09	ISSUED FOR CONSTRUCTION	DIM MJM/KVM/GJJ
F	12 AUG 16	RE-ISSUED FOR HAZOP AUG 29/12	DIM MJM/KVM/GJJ
E	12 JUL 23	RE-ISSUED FOR HAZOP AUG 03/12	RE DIM KVM/GJJ
D	12 JAN 10	RE-ISSUED FOR DESIGN	DIM NES/DXL
C	11 DEC 12	ISSUED FOR DESIGN	DDB NES/SCA
B	11 JUL 13	ISSUED FOR HAZOP	DDB JGL/WCS
1	13 MAR 22	RE-ISSUED FOR CONSTRUCTION	CBC JJK/KVM
REV	ISSUED DATE	DESCRIPTION	DWN CHKD ENG APP APP CLNT APP

TOYO ENGINEERING CANADA LTD.  
 APEGGA PERMIT P2034



ALBERTA -  
**QUEST CCS PROJECT**  
**WELLSITE #3**  
**LATERAL PIPELINE**  
**PIPING & INSTRUMENTATION DIAGRAM (P&ID)**

SCALE: NTS	
SHELL DWG NO.:	<b>701.0000.000.041.003</b>
REV.	<b>1</b>

01.301-136Q