

Volume VI

BOREHOLE LOGS FOR THE BEAUFORT SEA

ESSO Resources Canada Ltd. 1975

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ESSO RESOURCES CANADA LTD.

<u>APPENDIX</u>	<u>YEAR OF STUDY</u>	<u>CONSULTANT</u>	<u>CONSULTANT'S JOB NO.</u>
	1975	EBA	1-965.2

1975 WINTER DRILLING - KIGUT B-52 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731390 E568825 ZB		Bulk Density Mg/m ³ ▲			SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			CLAY (CL) - dark grey brown, soft, trace of organics	UNFROZEN							0	
1												1
2												2
3	X		- low plastic									3
4			- firm, stiff									4
5	X		CLAY (CL) AND SILT - medium, grey brown low plastic									5
6												6
7			- SILT and CLAY (ML), medium plastic									7
8			- trace of organics									8
9												9
10			- silty clay (CL), very soft									10
11			SILT (ML) AND CLAY - medium plastic									11
12			CLAY (CL) AND SILT - very soft, medium plastic, trace of organics									12
13												13
14												14
15											15	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.0m
 ORIGINAL BOREHOLE NUMBER - B-52-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-52-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KIGUT B-52 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731390 E568525 Z8		Bulk Density Mg/m ³ ▲			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
15		CLAY (CL) AND SILT - (cont'd)									50
16											51
17		CLAY (CL) - soft	UNFROZEN								52
18											53
19											54
20		- soft to firm, medium plastic									55
21											56
22											57
23		SAND (sm) AND SILT - fine, trace of organics									58
24		SAND (SP) - trace of silt, fine									59
25											60
26		- (SW), trace silt	UNFROZEN	2							61
27		END OF BOREHOLE at 27.4m									62
28											63
29											64
30											65

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 7.0m ORIGINAL BOREHOLE NUMBER - B-52-1	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON	HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER B-52-1 PAGE 2 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KIGUT B-52 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731395 E569180 Z8		Bulk Density Mg/m ³ 1.4 1.6 1.8 2.0 ▲			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
0		CLAY (CL) - grey, silty, stiff, some organics and shells	UNFROZEN								0
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
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											45
											46
											47
											48
											49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 6.8m ORIGINAL BOREHOLE NUMBER - B-52-5	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER B-52-5 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KIGUT B-52 IMPERIAL OIL LIMITED			EBA # 1-965.2 N7731905 E568815 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT			
TYPE	NO.	Q									
0			CLAY (CL) - grey, silty, organic, firm								0
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15
16											16
17											17
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23											23
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35											35
36											36
37											37
38											38
39											39
40											40
41											41
42											42
43											43
44											44
45											45
46											46
47											47
48											48
49											49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 7.3m ORIGINAL BOREHOLE NUMBER - B-52-10	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER B-52-10 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING -- KIGUT B-52 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731905 E568815 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
15		CLAY (CL) -- (cont'd)	UNFROZEN								50		
16													51
17		- soft, medium plastic											52
18													53
19													54
20		- very organic											55
21													56
22		SILT (ml) -- dark grey, soft, some sand laminations											57
23													58
24		SAND (SP) -- trace of silt, fine grained											59
25											60		
26			UNFROZEN	2							61		
27		- fine to medium											62
28													63
29													64
30													65
													66
													67
													68
													69
													70
											71		
											72		
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											93		
											94		
											95		
											96		
											97		
											98		
		END OF BOREHOLE at 28.3m											

DRILL RIG -- BECKER
 DRILLED FROM ICE
 WATER DEPTH -- 7.3m
 ORIGINAL BOREHOLE NUMBER -- B-52-10

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-52-10
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK N-1 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731050 E567310 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE TYP NO. Q			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0			SILT (ml) - dark grey brown, trace clay soft, some organics and shells									0
1												1
2			CLAY (CL) - dark grey brown, silty, medium plastic, firm									2
3												3
4			- trace organics									4
5												5
6												6
7			- soft, some silt									7
8												8
9			- silty									9
10												10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.3m
 ORIGINAL BORHOLE NUMBER - N-1-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 N-1-9
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK N-1 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731050 E567310 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		CLAY (CL) - (cont'd)	UNFROZEN								50	
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
28												63
29												64
30											65	
		SILT (ml) - black, trace clay, soft									66	
		- some sand inclusions, fine grained									67	
		SAND (SP) - light brown, fine grained, trace of silt and organics									68	
		- medium to fine grained, trace of coal									69	
											70	
											71	
											72	
											73	
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											93	
											94	
											95	
											96	
											97	
		END OF BOREHOLE at 29.6m									98	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.3m
 ORIGINAL BORHOLE NUMBER - N-1-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 N-1-9
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK N-1 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7731055 E566310 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
0		SILT (ml) - dark grey brown, trace of clay and organics, soft	UNFROZEN									0	
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15												15	
DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 7.0m ORIGINAL BORHOLE NUMBER - N-1-11		SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON		HEAVY W. TUBE VIBROCORE GRAB		EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER			BOREHOLE NUMBER N-1-11 PAGE 1 OF 2				

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK N-1 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7731055 E566310 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYPE	NO. Q											
15		CLAY (CL) - (cont'd)										50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
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												98

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 7.0m ORIGINAL BORHOLE NUMBER - N-1-11	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER N-1-11 PAGE 2 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK 1-21 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7730515 E564380 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		CLAY (CL) - medium dark grey-brown, silty, soft to firm, low plastic, trace of shells and organics	UNFROZEN									0
1												1
2												2
3												3
4		- trace of fine sand, stiff										4
5												5
6		- firm to stiff										6
7												7
8		- soft to firm										8
9												9
10		- medium plastic										10
11		- very soft to soft										11
12												12
13		- low plastic										13
14		SAND (sm) AND SILT - fine grained, black, trace of clay and organics										14
15		SAND (SP) - dark grey, trace of silt and organics, uniform										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.6m
 ORIGINAL BOREHOLE NUMBER - 1-21-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-21-1
 PAGE 1 OF 3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK I-21 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7730515 E564380 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYPE	NO.											
15		SAND (SP) - (cont'd)										50
16												51
17												52
18			UNFROZEN									53
19												54
20												55
21												56
22		- medium brown, fine grained, trace of silt, trace of fine gravel										57
23												58
24		- trace of organics and silt inclusions										59
25												60
26												61
27												62
28												63
29			UNFROZEN									64
30		END OF BOREHOLE at 30.3m										65

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.6m
 ORIGINAL BOREHOLE NUMBER - I-21-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-21-1
 PAGE 2 OF 3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK 1-21 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7730515 E564380 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
30												99
												100
31												101
												102
												103
32												104
												105
												106
												107
33												108
												109
												110
34												111
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35												115
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36												118
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43												139
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												141
44												142
												143
												144
45												145
												146
												147

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.6m
 ORIGINAL BOREHOLE NUMBER - I-21-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOV.

☐ SPLIT SPOON

☐ HEAVY W. TUBE

☐ VIBROCORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-21-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK 1-21 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7730515 E564890 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT			SPECIAL TESTS		UNIT		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C												
TYP	NO.				Q											
0		CLAY (CL) - medium grey, soft, low plastic	UNFROZEN													0
1																1
2		- firm to stiff														2
3																3
4																4
5																5
6																6
7		- low to medium plastic														7
8																8
9		- soft to firm														9
10																10
11		- very soft to soft														11
12																12
13		SAND (SP) - dark grey, some silt, trace clay, very loose														13
14																14
15		- trace of silt														15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.7m
 ORIGINAL BOREHOLE NUMBER - 1-21-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-21-9
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK I-21 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7730515 E564890 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO.	Q											
15			SAND (SP) - (cont'd)	UNFROZEN								50	
16													51
17			END OF BOREHOLE at 16.8m										52
18													53
19													54
20													55
21													56
22													57
23													58
24													59
25													60
26													61
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												97	
												98	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.7m
 ORIGINAL BOREHOLE NUMBER - I-21-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-21-9
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK 1-31 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7730470 E563280 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
0		CLAY (CL) - dark grey brown, soft to firm medium plastic, trace organics, some shells	UNFROZEN									0	
1													1
2													2
3		- silty											3
4													4
5													5
6													6
7		- soft to very soft											7
8													8
9													9
10													10
11													11
12		SAND (sm) AND SILT - dark grey-brown trace of clay, fine grained, firm											12
13		SAND (SP) - medium brown, fine grained, trace of silt											13
14													14
15												15	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.6m
 ORIGINAL BOREHOLE NUMBER - 1-31-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 1-31-9

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK I-31 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7730470 E563280 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15	M		SAND (SP) - (cont'd)	UNFROZEN								50
16			END OF BOREHOLE at 15.7m									
17												52
18												53
19												54
20												55
21												56
22												57
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												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.6m
 ORIGINAL BOREHOLE NUMBER - I-31-9

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOV.

☐ SPLIT SPOON

☐ HEAVY W. TUBE

☐ VIBROCORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 I-31-9

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK 1-31 IMPERIAL OIL LIMITED			EBA # 1-965.2 N7730470 E562265 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO.											
0		CLAY (CL) - medium brown, soft, silty, medium plastic, trace shells	UNFROZEN								0	
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14												14
15											15	
		CLAY (CL) - medium brown, soft, silty, medium plastic, trace shells									16	
											17	
											18	
											19	
											20	
											21	
											22	
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											46	
											47	
											48	
											49	

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 6.9m ORIGINAL BOREHOLE NUMBER - 1-31-11	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER 1-31-11 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ERNERK I-31 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7730470 E562265 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80				SPECIAL TESTS		UNIT	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C												
TYP	NO.	Q															
15			SAND (SP) - (cont'd)														50
16																	51
17																	52
18																	53
19																	54
20																	55
21																	56
22																	57
23																	58
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																	98

DEPTH (m)

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

UNFROZEN

- trace of coal and organics

NOTE: END OF BOREHOLE at 30.0m

DEPTH (ft)

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

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68

69

70

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95

96

97

98

DRILL RIG - BECKER

DRILLED FROM ICE

WATER DEPTH - 6.9m

ORIGINAL BOREHOLE NUMBER - I-31-11

SAMPLE TYPE

THIN W. TUBE

NO RECOV.

SPLIT SPOON

HEAVY W. TUBE

VIBROCURE

GRAB

EBA ENGINEERING CONSULTANTS LTD.

EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER

I-31-11

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KUGMALLIT E-49 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7728260 E560555 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		CLAY (CL) - medium grey brown, firm, trace of shells and organics	UNFROZEN								0	
1		- low plastic										1
2												2
3												3
4												4
5												5
6		- soft to very soft										6
7												7
8												8
9		- medium plastic										9
10		- trace of fine sand										10
11		SAND (sm) AND SILT - dark grey, trace of clay										11
12		SAND (SP) - medium brown, trace of silt, fine grained										12
13												13
14												14
15											15	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBER - E-49-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 E-49-9

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KUGMALLIT E-49 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7726260 E560555 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
TYP	NO. Q													
15		SAND (SP) - (cont'd)	UNFROZEN									50		
16														51
17														52
18														53
19														54
20														55
21														56
22														57
23														58
24														59
25														60
26														61
27														62
28														63
29														64
30		SAND (SM) AND SILT - medium to dark grey brown, some clay										65		
												66		
												67		
												68		
												69		
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												98		

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBER - E-49-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 E-49-9

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KUGMALUT E-49 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7726260 E560555 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
30		SAND (SM) AND SILT - (cont'd)	UNFROZEN									99	
31													100
32		END OF BOREHOLE at 31.7m											101
33													102
34													103
35													104
36													105
37													106
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												147	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBER - E-49-9

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 E-49-9
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KUGMALLIT E-49 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7726265 E559540 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
TYP	NO. Q													
0		CLAY (CL) - medium grey brown, soft to firm, medium to low plastic, shells and organics	UNFROZEN									0		
1														1
2														2
3														3
4														4
5														5
6														6
7														7
8														8
9														9
10		- very soft, medium plastic										10		
11		- some sand inclusions										11		
12		SAND (SP) - dark grey, fine grained, trace of silt and coal										12		
13												13		
14												14		
15												15		
16												16		
17												17		
18												18		
19												19		
20												20		
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41												41		
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43												43		
44												44		
45												45		
46												46		
47												47		
48												48		
49												49		

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBER - E-49-11

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 E-49-11
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KUGMALLIT E-49 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7726265 E359540 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SP) - (cont'd)										50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
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												96
												97
												98

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 5.2m ORIGINAL BOREHOLE NUMBER - E-49-11	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER E-49-11 PAGE 2 OF 3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - KUGMALLIT E-49 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7726265 E559540 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.8 1.9 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
30		SILT (ml) AND SAND - (cont'd)	UNFROZEN									99
31												100
32		END OF BOREHOLE at 31.7m										101
33												102
34												103
35												104
36												105
37												106
38												107
39												108
40												109
41												110
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												144
												145
												146
												147

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBER - E-49-11

SAMPLE TYPE

THIN W. TUBE

NO RECOV.

SPLIT SPOON

HEAVY W. TUBE

VIBROCORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 E-49-11
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HENDRICKSON B-8 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7724050 E557600 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
0		CLAY (CL) - brownish grey, moist	UNFROZEN								0
1											1
2											2
3		- firm, trace of organics									3
4											4
5		- silty, low plastic									5
6											6
7											7
8		SAND (SP-SM) - fine grained, greyish brown wet, some silt, trace of organics									8
9											9
10											10
11											11
12		- uniform, trace of silt									12
13											13
14											14
15											15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBERS - B-8-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-8-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HENDRICKSON B-8 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7724050 E557600 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO.	Q											
15			SAND (SP-SM) - (cont'd)	UNFROZEN								50	
16													51
17													52
18			SAND (SM) AND SILT - greyish brown, fine, uniform										53
19													54
20			- soupy wet										55
21													56
22													57
23													58
24													59
25			- trace of clay									60	
26												61	
27			SAND (SP-SM) - yellowish brown									62	
28												63	
29			SAND (SM) AND SILT - wet, greyish brown									64	
30												65	

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 5.2m ORIGINAL BOREHOLE NUMBERS - B-8-1	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER B-8-1 PAGE 2 OF 3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HENDRICKSON B-8				EBA # 1-965.2											
IMPERIAL OIL LIMITED				N7724050 E557600 Z8											
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲						SPECIAL TESTS	UNIT	DEPTH (m)	
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
			SAND (SM) AND SILT - (cont'd)											99	
														100	
														101	
														102	
														103	
														104	
			SAND (SP) - yellowish brown, wet, fine to medium grained, trace of gravel up to 12mm	UNFROZEN										105	
														106	
														107	
														108	
														109	
														110	
														111	
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														146	
														147	
			END OF BOREHOLE at 39.0m												

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBERS - B-8-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-8-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HENDRICKSON B-8 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7724190 E557605 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			PLASTIC LIMIT 20 40 60 80			WATER CONTENT(%)			LIQUID LIMIT			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C															
TYP	NO.	Q																		
0				SILT (ML) - dark grey brown, trace clay and shells																
1																				
2				- very stiff, medium plastic	UNFROZEN															
3																				
4																				
5																				
6				- low plastic																
7																				
8				SAND (SP) - medium grey brown, fine grained, trace of silt																
9																				
10																				
11				- saturated																
12																				
13																				
14					UNFROZEN															
15				NOTE: END OF BOREHOLE at 15.2m																

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.6m
 ORIGINAL BOREHOLE NUMBERS - B-8-2

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-8-2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HENDRICKSON B-8 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7723915 E557585 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.							Q			
0											0
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 4.9m ORIGINAL BOREHOLE NUMBERS - B-8-3	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER B-8-3 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HENDRICKSON B-8 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7723915 E557585 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SP) - (cont'd)	UNFROZEN								50
16												
17												52
18			END OF BOREHOLE at 17.4m									53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.9m
 ORIGINAL BOREHOLE NUMBERS - B-8-3

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-8-3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING -- ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746790 E543535 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		CLAY (cl) -- silty to some silt, brown-grey, low plastic										0
1												1
2		SILT (ml) and CLAY -- some fine sand layers, stiff	UNFROZEN									2
3		SILT (ml)										3
4												4
5		CLAY (cl) -- layers of clay and silty clay										5
6		- firm to stiff, low plastic										6
7		SILT (ml) and CLAY -- firm										7
8		CLAY (cl) -- some silt, trace of sand, sand layers to 0.3m thick										8
9												9
10												10
11												11
12												12
13												13
14		SAND (SP) -- fine, some silt laminae										14
15												15

DRILL RIG -- BECKER
 DRILLED FROM ICE
 WATER DEPTH -- 8.2m
 ORIGINAL BOREHOLE NUMBER -- L-30-1

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-1
 PAGE 1 OF 3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746790 E543535 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SP) - (cont'd)										50
16			UNFROZEN									51
17		- trace silt										52
18		- (SM) some silt										53
19		- (SP)										54
20												55
21												56
22												57
23		- fine to medium sand	UNFROZEN									58
24												59
25												60
26												61
27												62
28												63
29												64
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - L-30-1

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-1
 PAGE 2 OF 3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746790 E543535 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
30		SAND (SP) - (cont'd)	UNFROZEN									99
31		END OF BOREHOLE AT 31.1m										
32												101
33												102
34												103
35												104
36												105
37												106
38												107
39												108
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												146
												147

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - L-30-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED			EBA # 1-965.2 N7747100 E543535 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0 PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80						SPECIAL TESTS	UNIT	
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C								
	TYP	NO. Q											
0			CLAY (cl) - silty, greyish brown, wet										
1													
2				UNFROZEN									
3													
4													
5													
6			- some silt, moist										
7													
8													
9			- some fine sand, wet										
10													
11													
12													
13			SAND (SP) - fine, trace of silt, trace of gravel, greyish brown										
14				UNFROZEN									
15													

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.8m
 ORIGINAL BOREHOLE NUMBER - L-30-6

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-6
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7747100 E543535 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SP) - (cont'd) - wet									50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.8m
 ORIGINAL BOREHOLE NUMBER - L-30-6

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-6
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7746795 E543190 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE TYP NO. Q		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0		CLAY (cl) - silty, greyish brown, moist to wet, low plastic	UNFROZEN								0
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9		- soft									9
10		SAND (SP) - fine, trace of silt, greyish brown, wet	UNFROZEN								10
11											11
12		- medium grained									12
13											13
14		- some silt									14
15		SILT (ml) - dark grey, wet, soft									15
											16
											17
											18
											19
										20	
										21	
										22	
										23	
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										49	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.0m
 ORIGINAL BOREHOLE NUMBER - L-30-7

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE
 NUMBER
 L-30-7
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746795 E543190 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SILT (ML) - (cont'd)										50
16												51
17												52
18		SAND (SP) - some silt, grey										53
19		- fine to medium, trace of silt, wet										54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27			UNFROZEN									62
28		END OF BOREHOLE AT 27.4m										63
29												64
30												65

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.0m
 ORIGINAL BOREHOLE NUMBER - L-30-7

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-7
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7748295 E543545 Z8		Bulk Density Mg/m ³ 1.4 1.6 1.8 2.0 ▲			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
0		CLAY (CL) - silty, greyish brown, low plastic, wet	UNFROZEN								0
1											1
2											2
3											3
4											4
5											5
6											6
7		SILT (ml) - some clay, greyish brown, wet									7
8											8
9											9
10		- 0.3m layer of fine sand - trace of sand, firm	UNFROZEN								10
11											11
12											12
13											13
14											14
15											15
16											16
17											17
18											18
19											19
20										20	
21										21	
22										22	
23										23	
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29										29	
30										30	
31										31	
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33										33	
34										34	
35										35	
36										36	
37										37	
38										38	
39										39	
40										40	
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43										43	
44										44	
45										45	
46										46	
47										47	
48										48	
49										49	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - L-30-8

SAMPLE TYPE

☐ THIN W. TUBE	☐ PISTON
☐ NO RECOVERY	☐ CORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-8
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746295 E543345 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
TYP	NO. Q													
15		SAND (SP) - (cont'd)										50		
16														51
17														52
18														53
19														54
20														55
21														56
22														57
23														58
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											96			
											97			
											98			
		END BOREHOLE AT 28.7m	UNFROZEN											

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - L-30-8

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-8
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7748785 E544040 Z8		Bulk Density Mg/m^3 ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
0		CLAY (CL) - silty, grey-brown, trace of sand, low to medium plastic	UNFROZEN									0	
1													1
2		- stiff											2
3													3
4		- thinly bedded silty layers, some											4
5													5
6													6
7		CLAY and SILT - some organics											7
8		CLAY - silty											8
9													9
10			UNFROZEN									10	
11		SAND (SP) - trace of silt, fine, angular, grey											11
12													12
13													13
14													14
15													15
													16
													17
													18
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												49	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.5m
 ORIGINAL BOREHOLE NUMBER - L-30-9

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-9
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746785 E544040 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SP) - (cont'd)										50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.5m
 ORIGINAL BOREHOLE NUMBER - L-30-9

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-9
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7748785 E543390 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		CLAY (CL) - silty, grey	UNFROZEN								0	
1												1
2	X											2
3	X											3
4		- trace of fine sand										4
5	X	- stiff to very stiff, low plastic										5
6												6
7	X											7
8		- firm to stiff										8
9	X											9
10		SAND (sm) - silty, fine, compact										10
11	M	SILT (ml) - grey, trace of fine sand										11
12		CLAY (cl) - silty, dark grey, low plastic										12
13												13
14		SAND (SP) - silty, fine, some silt layers										14
15											15	

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 8.2m ORIGINAL BOREHOLE NUMBER - L-30-10	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER L-30-10 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746785 E543390 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SP) - (cont'd) - trace of silt	UNFROZEN								50
16												51
17			END OF BOREHOLE AT 16.5m									52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
28												63
29												64
30												65
			66									
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			94									
			95									
			96									
			97									
			98									

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - L-30-10

SAMPLE TYPE

☐

 THIN W. TUBE

☐

 NO RECOVERY

☐

 SPLIT SPOON

☐

 PISTON

☐

 CORE

☐

 GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-10
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED			EBA # 1-965.2 N7746785 E543685 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT			
TYP	NO. Q									
0										0
1										1
2										2
3										3
4										4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 8.5m ORIGINAL BOREHOLE NUMBER - L-30-11	SAMPLE TYPE ☐ THIN W. TUBE ☐ PISTON ☐ NO RECOVERY ☐ CORE ☐ SPLIT SPOON ☐ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER L-30-11 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7748785 E543685 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15	M		SAND (SP) - (cont'd)	UNFROZEN								50
16			END OF BOREHOLE AT 16.2m									51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
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												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.5m
 ORIGINAL BOREHOLE NUMBER - L-30-11

SAMPLE TYPE

☐ THIN W. TUBE
☐ NO RECOVERY
☒ SPLIT SPOON

☐ PISTON
☐ CORE
☒ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-11
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED			EBA # 1-965.2 N7746540 E543115 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0 PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE TYP NO. Q	SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C							
0		CLAY (cl) - silty, grey	UNFROZEN							0
1										1
2										2
3										3
4										4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
21										21
22										22
23										23
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30										30
31										31
32										32
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36										36
37										37
38										38
39										39
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42										42
43										43
44										44
45										45
46										46
47										47
48										48
49										49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.9m
 ORIGINAL BOREHOLE NUMBER - L-30-12

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE
 NUMBER
 L-30-12
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746540 E543115 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
TYP	NO. Q													
15		SAND (SP) - trace silt, fine to medium	UNFROZEN									50		
16														51
17														52
18														53
19														54
20														55
21														56
22														57
23														58
24														59
25		END OF BOREHOLE AT 19.2m										60		
26														61
27														62
28														63
29														64
30														65
														66
														67
														68
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											96			
											97			
											98			

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.9m
 ORIGINAL BOREHOLE NUMBER - L-30-12

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-12
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-985.2 N7747095 E543170 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	WATER CONTENT (%)							
TYP	NO. Q				PLASTIC LIMIT	LIQUID LIMIT	WATER CONTENT (%)					
0		CLAY (CL) - silty, moist, brown-grey	UNFROZEN									0
1												1
2												2
3												3
4	X	- grey, moist, firm										4
5												5
6	M											6
7		- same, with a trace of silt										7
8	M	SILT (ml) - grey brown, trace of gravel, some sand										8
9		SAND (SP) - fine, trace of gravel										9
10												10
11	M	- fine to medium, brown, trace of silt										11
12												12
13	M											13
14												14
15												15

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 8.5m ORIGINAL BOREHOLE NUMBER - L-30-14	SAMPLE TYPE ☐ THIN W. TUBE ☐ NO RECOVERY ☒ SPLIT SPOON ☐ PISTON ☐ CORE ☒ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER L-30-14 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7747095 E543170 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SP) - (cont'd)	UNFROZEN									50
16		END OF BOREHOLE AT 16.2m										51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
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												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.5m
 ORIGINAL BOREHOLE NUMBER - L-30-14

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPUT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 L-30-14
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA / 1-965.2 N7747475 ES42320 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
0		CLAY (CL) - trace fine sand, brownish grey, moist, silty, low plastic	UNFROZEN									0	
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15												15	
		CLAY (CL) - trace fine sand, brownish grey, moist, silty, low plastic										16	
												17	
												18	
												19	
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												49	

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 8.2m ORIGINAL BOREHOLE NUMBER - L30IV-3	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER L30IV-3 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ARNAK L-30 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7747475 E542320 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SP) - (cont'd)										50
16												51
17												52
18												53
19		END OF BOREHOLE AT 18.9m	UNFROZEN									54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
28												63
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												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - L30IV-3

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE NUMBER
 L30IV-3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III IMPERIAL OIL LIMITED				EBA # 1-965.2 N7748735 E518585 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			CLAY (cl) - some sand, silty, organics, dark grey-brown	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7				- trace of sand								7
8												8
9				- stiff, no sand								9
10												10
11												11
12												12
13				SAND (sm) and SILT - dark brown, trace clay								13
14				SAND (SM) - medium to dark grey brown, some silt to silty, trace organics, trace of gravel	UNFROZEN							14
15				- no gravel								15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.8m
 ORIGINAL BOREHOLD NUMBER - III-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III IMPERIAL OIL LIMITED				EBA # 1-965.2 N7748735 E518585 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SM) - (cont'd)										50
16												51
17												52
18												53
19		- fine grained										54
20												55
21		SAND (sm) and SILT - medium to dark grey brown, trace clay, organics										56
22		SAND (SM) - medium grey brown, some silt										57
23												58
24												59
25												60
26												61
27			UNFROZEN									62
28		END OF BOREHOLE AT 28.0m										63
29												64
30												65

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.8m
 ORIGINAL BOREHOLE NUMBER - III-1

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III				EBA # 1-965.2		Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT		
IMPERIAL OIL LIMITED				N7747750 E519555 Z8		PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80							
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C									
TYP	NO. Q												
0		CLAY (cl) - dark grey brown, silty, trace of fine sand, organics and shells	UNFROZEN								0		
1													1
2													2
3												3	
4												4	
5												5	
6												6	
7												7	
8												8	
9												9	
10												10	
11												11	
12												12	
13												13	
14												14	
15										15			
		SAND (sm) and SILT - dark grey brown, trace of organics and shells									16		
		CLAY (cl) - dark grey brown, trace of sand, clay, black organic inclusions, very stiff									17		
		SAND (SM) - medium grey brown, fine grained, some silt to silty, trace of organics									18		
		END OF BOREHOLE AT 9.1m Gas blow at 8.8m									19		
											20		
											21		
											22		
											23		
											24		
											25		
											26		
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											48		
											49		

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 8.2m
 ORIGINAL BOREHOLE NUMBER - III-2

SAMPLE TYPE

☐ THIN W. TUBE
☐ NO RECOVERY
☐ SPLIT SPOON

☐ PISTON
☐ CORE
☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 III-2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746290 E521075 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
0		SILT (ml) AND SAND - medium grey brown, fine sand, trace of organics	UNFROZEN									0	
1		CLAY (cl) - silty, dark grey, some sand and organics											1
2													2
3													3
4		SILT (ml) AND SAND - dark grey, trace clay and organics											4
5		SAND (SM) - medium brown, fine grained, some silt										5	
6												6	
7												7	
8												8	
9												9	
10												10	
11												11	
12												12	
13												13	
14												14	
15		- silty										15	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.6m
 ORIGINAL BOREHOLD NUMBER - III-3

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☒ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 III-3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III IMPERIAL OIL LIMITED				EBA # 1-965.2 N7746290 E521075 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SM) - (cont'd)	UNFROZEN									50
16												51
17												52
18												53
19												54
20												55
21		- some silt										56
22			UNFROZEN									57
23												58
24												59
25												60
26												61
27												62
28		- trace of organics										63
29												64
30		END OF BOREHOLE at 29.3m										65
												66
												67
												68
												69
												70
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												90
												91
												92
												93
												94
												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.6m
 ORIGINAL BOREHOLE NUMBER - III-3

SAMPLE TYPE

☐ THIN W. TUBE	☐ PISTON
☐ NO RECOVERY	☐ CORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE NUMBER
 III-3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III IMPERIAL OIL LIMITED				EBA # 1-965.2 N7745990 ES22755 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO.	Q											
0			SAND (SP) - medium grey brown, fine grained, trace silt	UNFROZEN								0	
1													1
2													2
3			- trace to some silt, trace of organics										3
4			SILT (ml) - dark grey brown, sandy, trace clay and organics										4
5													5
6			- some sand										6
7													7
8			SAND (SP-SM) - medium to dark grey-brown, trace silt, trace of organics										8
9			- some gravel (max 60mm)										9
10			SILT (ml) - sandy, trace of clay and organics	UNFROZEN								10	
11													11
12													12
13			SAND (sm) - silty, trace of fine gravel										13
14			- trace clay										14
15													15
													16
													17
													18
													19
												20	
												21	
												22	
												23	
												24	
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												48	
												49	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 7.5m
 ORIGINAL BOREHOLD NUMBER - III-4

SAMPLE TYPE

☐ THIN W. TUBE	☐ PISTON
☐ NO RECOVERY	☐ CORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 III-4
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III
IMPERIAL OIL LIMITED

EBA # 1-965.2
N7745990 E522755 ZB

DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
	TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
15			SILT (ml) - dark grey, some sand, trace of clay, stiff									50
16												51
17			- some sand to sandy									52
18			SAND (sm) - medium brown, very fine, some silt									53
19			SAND (sm) AND SILT - medium brown, fine grained, trace of clay									54
20			SAND (SM) - medium brown, very fine, some silt									55
21												56
22				UNFROZEN								57
23												58
24												59
25												60
26												61
27												62
28												63
29												64
30			END OF BOREHOLE at 29.4m									65

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 7.5m
ORIGINAL BOREHOLE NUMBER - III-4

SAMPLE TYPE
☐ THIN W. TUBE ☐ PISTON
☐ NO RECOVERY ☐ CORE
☐ SPLIT SPOON ☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
III-4
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III IMPERIAL OIL LIMITED				EBA # 1-965.2 N7748495 E525185 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			CLAY (cl) - dark grey, silty and organics, stiff	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14												14
15												15
16												16
17												17
18												18
19												19
20												20
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40												40
41												41
42												42
43												43
44												44
45												45
46												46
47												47
48												48
49												49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 8.8m ORIGINAL BOREHOLE NUMBER - III-6	SAMPLE TYPE ☐ THIN W. TUBE ☐ NO RECOVERY ☐ SPLIT SPOON ☐ PISTON ☐ CORE ☒ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER III-6 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA III
IMPERIAL OIL LIMITED

EBA # 1-965.2
N7749495 E525165 Z8

DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
	TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
15			SAND (SP) - (cont'd)	UNFROZEN								50
16			- 25-50mm gravel									51
17												52
18												53
19												54
20												55
21			- trace to some silt, (SP-SM) trace of organics, fine grained	UNFROZEN								56
22												57
23												58
24												59
25												60
26												61
27												62
28			END OF BOREHOLE at 28.0m									63
29												64
30												65
												66
												67
												68
												69
												70
												71
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												96
												97
												98

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 8.8m
ORIGINAL BOREHOLE NUMBER - III-6

SAMPLE TYPE
☐ THIN W. TUBE ☐ PISTON
☐ NO RECOVERY ☐ CORE
☐ SPLIT SPOON ☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER III-6
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738007 E524107 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SAND (SP) - medium grey brown, wet, slightly silty, some gravel 19mm maximum, fine	UNFROZEN									0
1		- lumps of silty fine sand										1
2		SILT (ml) - dark grey, moist, firm to stiff, no sand										2
3												3
4												4
5												5
6		- stiff										6
7		- dark grey to black, firm, organic odour										7
8												8
9		- layers of fine sand and silt (SM)										9
10		- sandy (very fine)(ml)	UNFROZEN									10
11		- trace of organics										11
12		END OF BOREHOLE at 11.9m										12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.7m
 ORIGINAL BOREHOLE NUMBERS - 1-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-1

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738499 E524283 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			PLASTIC LIMIT 20 40 60 80			WATER CONTENT (%) 20 40 60 80			LIQUID LIMIT 20 40 60 80			SPECIAL TESTS		UNIT	
SAMPLE		SOIL DESCRIPTION		GROUND ICE DESCRIPTION		TEMP C															
TYP	NO. Q																				
0				SAND (SP) - medium grey brown, trace of silt, fine grained, saturated, loose and silty	UNFROZEN																
1																					
2				SAND AND SILT (SM) - medium grey brown	FROZEN Nf																
3				- mostly silt with lumps of fine to medium clean sand	Nbn																
4				- medium grey to black																	
5																					
6				- slightly wetter than above	Nf																
7				SAND (SM) - trace of silt, medium brown, loose, fine																	
8				- some silt																	
9																					
10				- silty, trace of gravel, very fine																	
11				SAND AND SILT (sm) - medium to dark grey	Nbn																
12				SILT (ml) - no sand, visible segregated ice, medium to dark grey	Nbn-Vs = 50%																
13					Nbn-Vr = 40-50%																
14				- trace of sand	Nbn																
15					Nbn to Vr																

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 0.9m
 ORIGINAL BOREHOLE NUMBERS - 1-4

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-4
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-965.2		Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
IMPERIAL OIL LIMITED				N7738499 E524283 Z8		1.4 1.6 1.8 2 PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80						
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C								
TYP	NO. Q											
15			Nbn to Vr									50
		- trace of fine sand, trace of clay										51
16												52
		- trace of fine sand, medium grey	FROZEN Vs = 40-60%									53
17												54
												55
18		END OF BOREHOLE at 18.0m										56
												57
19												58
												59
20												60
												61
21												62
												63
22												64
												65
23												66
												67
24												68
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25												70
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26												72
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 0.9m
 ORIGINAL BOREHOLE NUMBERS - 1-4

SAMPLE TYPE	
THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-4
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738404 E524352 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0								SPECIAL TESTS		UNIT	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT												
TYP	NO. Q				20	40	60	80	20	40	60	80					
0		SILT (ml) - clayey, trace of very fine sand, trace of gravel, medium brown	FROZEN														
1		SAND (SP-SM) - fine to medium, trace of gravel, trace of silt	Nbn														
2		SILT (ml) AND SAND - soupy, medium grey brown															
3																	
4		- trace of clay	Nf to Nbf														
5																	
6		SAND (SM) AND SILT - trace of clay, medium grey brown	Nbn														
7		- clayey	Nf														
8		- trace of clay															
9																	
10			FROZEN Nf														
11																	
12		END OF BOREHOLE at 11.6m															
13																	
14																	
15																	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 0.6m
 ORIGINAL BOREHOLE NUMBERS - 1-6

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-6

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-965.2													
IMPERIAL OIL LIMITED				N7738310 E524313 Z8													
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲						SPECIAL TESTS	UNIT	DEPTH (ft)			
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT									
0			SAND (SP) AND GRAVEL - 40mm, medium grey brown, fine, saturated, trace of silt	UNFROZEN										0			
1			- silty sand pockets (SP-SM), trace of gravel, very fine											1			
2			- lumps of silt, organics											2			
3			SILT (ml) - medium grey, moist, firm											3			
4														4			
5														5			
6			SAND (SP) - trace of silt, very fine, wet	UNFROZEN										6			
7			- silty											7			
8			SILT (ml) - medium grey, moist, firm											8			
9			END OF BOREHOLE at 7.9m											9			
10														10			
11														11			
12														12			
13														13			
14														14			
15														15			

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 6.2m
 ORIGINAL BOREHOLE NUMBERS - 1-7

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 1-7

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738222 E524263 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SAND (SP) - trace of silt, very wet, loose medium grey brown	UNFROZEN									0
1		SILT (ml) - blocky, clayey, dark grey, moist, low plasticity										1
2												2
3												3
4												4
5		- very sand (fine), very wet, medium grey brown										5
6												6
7		- sandy										7
8		- trace of sand, small hard lumps of silty, dark grey brown	FROZEN									8
9												9
10		SILT (ml) - (cont'd)	FROZEN									10
11		- some lumps of fine sand, medium grey moist										11
12		END OF BOREHOLE at 11.6m										12
13												13
14												14
15												15

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 2.7m
ORIGINAL BOREHOLE NUMBERS - 1-8

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER 1-8

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-985.2 N7738452 E524484 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
0		SAND (SM) AND SILT - grey brown, wet, fine	FROZEN								0
1		- very wet	Nf								1
2		- grey brown, wet									2
3		SAND (SP) - silty, fine, wet	UNFROZEN								3
4											4
5		- lumps of sandy silt									5
6		END OF BOREHOLE at 5.5m									6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15
16											16
17											17
18											18
19											19
20											20
21											21
22											22
23											23
24											24
25											25
26											26
27											27
28											28
29											29
30											30
31											31
32											32
33											33
34											34
35											35
36											36
37											37
38											38
39											39
40											40
41											41
42											42
43											43
44											44
45											45
46											46
47											47
48											48
49											49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.8m
 ORIGINAL BOREHOLE NUMBERS - 1-12

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-12

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738230 E524495 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
	TYP	NO. Q										
0			SAND (SP) - trace of silt, fine, medium brown	UNFROZEN								0
1			- fine to medium, some gravel									1
2												2
3			SILT (ml) - sandy (fine grained), dark grey brown, trace of clay, moist									3
4												4
5			- very sandy (sand lumps), fine, moist									5
6			SAND (SM) AND SILT - dark grey, very fine moist to wet									6
7												7
8												8
9				FROZEN Nf, Vx								9
10												10
11			NOTE: END OF BOREHOLE at 10.5m									11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.4m
 ORIGINAL BOREHOLE NUMBERS - 1-14

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-14

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738137 E524447 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.8 2.2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SAND (SP) - clean, fine, moist to wet, medium brown	UNFROZEN								0
1												1
2			- silty, wet, some lumps of sandy silt									2
3			SILT (ml) - dark grey, stiff, moist trace of organics									3
4												4
5			- trace of gravel (12.5mm max.), slightly sandy									5
6			SAND (SM) - dark grey, silty, very fine grained, wet, trace of organics									6
7												7
8												8
9			- (SP)	UNFROZEN								9
10			END OF BOREHOLE at 9.3m									10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.7m
 ORIGINAL BOREHOLE NUMBERS - 1-15

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 1-15

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-985.2													
IMPERIAL OIL LIMITED				N7738010 E524723 Z8													
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲						SPECIAL TESTS	UNIT	DEPTH (ft)			
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT									
						20	40	60	80								
			SILT (ml) - sandy, dark grey, moist, trace of sand	UNFROZEN										0			
														1			
														2			
														3			
														4			
														5			
														6			
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														46			
														47			
														48			
														49			
DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.4m ORIGINAL BOREHOLE NUMBERS - 1-20				SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB				EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER				BOREHOLE NUMBER 1-20					

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738504 E524725 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SAND (SP) - trace of silt, angular, medium grained, yellowish brown, seasonal frost to 3.8m	FROZEN Nbn									0
1			Vx									1
2		- some silt (SM), grey brown, wet, medium grained										2
3		- silty, fine, trace of gravel										3
4			UNFROZEN									4
5		- trace of silt (SP-SM), damp, greyish brown										5
6		- silty										6
7			FROZEN									7
8			Vx									8
9			Vc									9
10												10
11			Vc									11
12												12
13			FROZEN Vx									13
14		END OF BOREHOLE at 13.6m										14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.1m
 ORIGINAL BOREHOLE NUMBERS - 1-33

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-33

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-965.2											
IMPERIAL OIL LIMITED				N7738280 E524561 Z8											
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)				
TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT								
					20	40	60	80							
0		SAND (SM) AND GRAVEL - yellowish brown, angular, trace of silt	FROZEN Vc								0				
1		- gravelly sand with some silt									1				
2											2				
3		SAND (SM) - yellowish brown, medium, some silt, angular	Nf								3				
4		SILT (ml) - sandy, grey brown	Vx								4				
5		- traces of sand, dark grey, frozen	Vr								5				
6											6				
7		- sandy (very fine), grey brown, angular sand	Nf								7				
8		END OF BOREHOLE at 7.3m NOTE: BOREHOLE LOCATED ON A GRAVEL BAR									8				
9											9				
10											10				
11											11				
12											12				
13											13				
14											14				
15											15				

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 0.0m
 ORIGINAL BOREHOLE NUMBERS - 1-38

SAMPLE TYPE

THIN W. TUBE

NO RECOV.

SPLIT SPOON

HEAVY W. TUBE

VIBROCORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 1-38

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737946 E524583 Z8		Bulk Density Mg/m ³ 1.4 1.6 1.8 2.0 ▲				SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
TYP	NO.													
0		SILT (ml) - to sandy silt, grey, trace of organics	UNFROZEN									0		
1		SAND (SM) - fine, some silt to silty, yellowish brown, angular, wet										1		
2														2
3														3
4														4
5														5
6														6
7														7
8														8
9														9
10														10
11		- trace of silt (SP)	UNFROZEN									11		
12			FROZEN									12		
13			Nf									13		
14			Vx									14		
15		END OF BOREHOLE at 14.6m	FROZEN Vx 15-20%									15		

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.2m
 ORIGINAL BOREHOLE NUMBERS - 1-51

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-51

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-965.2		Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
IMPERIAL OIL LIMITED				N7737994 E524487 Z8		PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80						
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C								
TYP	NO. Q											
0		SAND (SM) - silty to sand-silt, some gravel, very wet, grey, angular, fine	UNFROZEN									0
1												1
2		- silty, lumps of silt										2
3												3
4		- some silt, yellowish brown, wet (soupy)										4
5												5
6												6
7												7
8												8
9			FROZEN									9
10			Vx									10
11			FROZEN Vc									11
12		END OF BOREHOLE at 11.43m										12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBERS - I-52

SAMPLE TYPE

☐

 THIN W. TUBE

☐

 NO RECOV.

☐

 SPLIT SPOON

☐

 HEAVY W. TUBE

☐

 VIBROCORE

☐

 GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-52

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-965.2		Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
IMPERIAL OIL LIMITED				N7737879 E524441 Z8		1.4 1.6 1.8 2 PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT 20 40 60 80						
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C								
TYP	NO. Q											
		SAND (SM) - silty, grey, angular, yellowish brown	UNFROZEN									0
												1
												2
												3
												4
												5
												6
												7
												8
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												46
												47
												48
												49
		END OF BOREHOLE at 14.8m										

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBERS - I-53

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-53

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737772 E524824 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) AND CLAY - some pebbles, trace of sand	UNFROZEN									0
1												1
2		SAND (SM) AND SILT - trace of clay, stiff, grey, wet, lumps of silt										2
3		- some clay, some pebbles										3
4												4
5		SAND (SM) - some silt, fine, wet, angular, grey, brown										5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13			FROZEN Vx									13
14		- trace of silt, yellowish brown, moist										14
15		NOTE: END OF BOREHOLE at 15.1m										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.7m
 ORIGINAL BOREHOLE NUMBERS - I-54

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-54

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737771 E524606 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			NO RECOVERY	UNFROZEN								0
1			SILT (ML) - to silt and sand, some gravel grey, wet									1
2												2
3			- fine (sand), stiff									3
4			SAND (SM) - silty, fine, grey, angular									4
5												5
6												6
7			- some silt, yellowish brown, wet									7
8												8
9			- trace of silt (SP)									9
10												10
11												11
12												12
13												13
14				FROZEN								14
15				NF								15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.9m
 ORIGINAL BOREHOLE NUMBERS - 1-56

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 1-56

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737771 E524606 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SP) - (cont'd)	FROZEN vx								50
16			END OF BOREHOLE at 15.8m									51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
28												63
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30												65
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												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.9m
 ORIGINAL BOREHOLE NUMBERS - 1-56

SAMPLE TYPE

☐ THIN W. TUBE
☐ NO RECOV.
☐ SPLIT SPOON

☐ HEAVY W. TUBE
☐ VIBROCORE
☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-56
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I				EBA # 1-965.2									
IMPERIAL OIL LIMITED				N7737902 E524671 Z8									
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)	
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
			SILT (ml) - to silt and sand, some gravel, grey, wet	UNFROZEN								0	
												1	
												2	
												3	
			- trace of sand, trace of clay, trace of pebbles, trace of organics, grey, wet									4	
												5	
			- organic layer									6	
												7	
			- becoming: silt and clay, trace of sand dark grey, wet									8	
				UNFROZEN								9	
												10	
			END OF BOREHOLE at 7.5m									11	
												12	
												13	
												14	
												15	
												16	
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												18	
												19	
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												48	
												49	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBERS - I-57

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-57

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737831 E524529 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SAND (SP-SM) - trace of silt, fine, angular, wet, yellowish brown	UNFROZEN									0
1												1
2												2
3		- some gravel to gravelly, trace to some silt										3
4												4
5												5
6												6
7		- some silt										7
8												8
9		- (SM), some silt										9
10			UNFROZEN									10
11												11
12		- trace of silt (SP-SM)										12
13												13
14		- trace of silt	FROZEN									14
15			Nf									15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.6m
 ORIGINAL BOREHOLE NUMBERS - I-58

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 I-58
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA / 1-965.2 N7737831 E524529 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SP-5M) - (cont'd)									50
			- a trace to no silt	Vx - Vr = 60%								51
16												52
			- trace of silt, fine									53
17				FROZEN Vx								54
			END OF BOREHOLE at 17.4m									55
18												56
												57
19												58
												59
20												60
												61
21												62
												63
22												64
												65
23												66
												67
24												68
												69
25												70
												71
26												72
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27												74
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28												76
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29												78
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30												80
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												92
												93
												94
												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.6m
 ORIGINAL BOREHOLE NUMBERS - 1-58

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER 1-58
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA I IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737647 E524780 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		NO RECOVERY	UNFROZEN									0
1												1
2		SAND (SM) - silty, fine, grey, angular, wet										2
3		- some silt, wet										3
4		SILT (ml) - some fine sand, trace of clay, grey, wet										4
5												5
6		- some clay to clayey, dark grey to black, medium plastic										6
7		SAND (SM) - silty, fine, grey, angular, silt and clay lumps	UNFROZEN									7
8		- large lumps of silt and clay										8
9												9
10		NOTE: END OF BOREHOLE at 10.1m										10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.9m
 ORIGINAL BOREHOLE NUMBERS - 1-60

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 1-60

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738210 E521210 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - trace of clay, grey, wet, low plastic	UNFROZEN								0
1												1
2			- some clay, fairly stiff									2
3												3
4			- trace of fine sand									4
5			SAND (sm) - trace to some silt, fine, grey, very wet, trace of organics									5
6												6
7			- silty									7
8												8
9												9
10			- soupy									10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.7m
 ORIGINAL BOREHOLE NUMBER - II-1

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 II-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738210 ES21210 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (sm) - (cont'd)	UNFROZEN								50
16			- very wet to wet									51
17												52
18				FROZEN Vx								53
19												54
20			END OF BOREHOLE at 20.1m									55
21												56
22												57
23												58
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												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.7m
 ORIGINAL BORHOLE NUMBER - II-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE NUMBER
 II-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737080 E521400 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - traces of sand and clay, grey, wet	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
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42												42
43												43
44												44
45												45
46												46
47												47
48												48
49												49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.4m ORIGINAL BORHOLE NUMBER - II-2	SAMPLE TYPE THIN W. TUBE NO RECOV. SPLIT SPOON HEAVY W. TUBE VIBROCORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER II-2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-985.2 N7737740 E522280 Z8		Bulk Density Mg/m ³ 1.4 1.6 1.8 2 ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - trace of sand and clay, grey wet	UNFROZEN									0
1												1
2												2
3												3
4		- trace of gravel										4
5		- some clay										5
6		SAND (sm) AND SILT - trace of clay, stiff, wet										6
7		SAND (sm) - silty, fine, grey, moist										7
8												8
9												9
10		- very wet										10
11			FROZEN, Nbn									11
12			FROZEN, Vx									12
13												13
14		END OF BOREHOLE at 14.3m										14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.4m
 ORIGINAL BORHOLE NUMBER - II-3

SAMPLE TYPE

THIN W. TUBE
 NO RECOV.
 SPLIT SPOON

HEAVY W. TUBE
 VIBROCORE
 GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 II-3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-965.2 N7737944 E523338 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - traces of clay, sand and gravel, grey brown	UNFROZEN									0
1												1
2		SAND (sm) - fine, silty, grey brown, wet										2
3												3
4												4
5												5
6												6
7												7
8		SILT (ml) - some fine sand, grey brown, wet										8
9		SAND (sm) - trace of silt, yellow brown, fine										9
10		- silty, very wet										10
11												11
12												12
13												13
14		SILT (ml) - grey, trace of fine sand, ice crystals	FROZEN Vx									14
15		END OF BOREHOLE at 15.1m										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.4m
 ORIGINAL BORHOLE NUMBER - II-4

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 II-4

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-965.2 NN773777 EE524390 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)	
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
	TYP	NO. Q											
0			SILT AND SAND AND GRAVEL - wet (poor recovery)	UNFROZEN								0	
1			SILT (ml) - trace of fine sand, grey brown, wet										1
2			- sandy, poor recovery										2
3			SAND (SM) - some silt, wet, grey brown, fine to medium										3
4													4
5													5
6													6
7			GRAVEL (GP) AND SAND - trace of silt, yellowish brown, gap graded										7
8			SAND (SM) - trace of gravel, fine, trace of silt, yellowish brown										8
9			GRAVEL (gp) - sandy, yellowish brown		UNFROZEN								9
10													10
11			SAND (SM) - a trace to some silt, yellowish brown, fine to medium, wet										11
12													12
13													13
14													14
15													15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.6m
 ORIGINAL BORHOLE NUMBER - II-5

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 II-5
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PULLEN AREA II IMPERIAL OIL LIMITED				EBA # 1-965.2 NN7757777 EES24390 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
15		SAND (SM) - (cont'd)	FROZEN, Nbn								50
16											51
17		END OF BOREHOLE at 16.5m									52
18											53
19											54
20											55
21											56
22											57
23											58
24											59
25											60
26											61
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.6m
 ORIGINAL BORHOLE NUMBER - II-5

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOV.

☐ SPLIT SPOON

☐ HEAVY W. TUBE

☐ VIBROCORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7731043 E511869 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - dark grey brown, trace of clay, organics and shells, soft	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10					UNFROZEN							10
11												11
12												12
13												13
14												14
15												15
16												16
17												17
18												18
19												19
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48												48
49												49

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 2.0m
ORIGINAL BOREHOLE NUMBER - HI-1

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCURE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
HI-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7731043 E511869 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYPE	NO.	Q										
			SILT (ml) - (cont'd)									50
												51
												52
												53
												54
												55
												56
												57
												58
			END OF BOREHOLE AT 17.8m									59
												60
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												68
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.0m
 ORIGINAL BOREHOLE NUMBER - HI-1

SAMPLE TYPE

THIN W. TUBE
 NO RECOV.
 SPLIT SPOON

HEAVY W. TUBE
 VIBROCORE
 GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE NUMBER
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730731 E512899 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - dark grey brown, trace clay, very slight trace of fine sand near top, black organics, shells	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
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												49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.2m
 ORIGINAL BOREHOLE NUMBER - HI-2

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE NUMBER
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730731 E512899 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SILT (ml) - (cont'd)										50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.2m
 ORIGINAL BOREHOLE NUMBER - HI-2

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730530 ES14039 Z8		Bulk Density Mg/m^3 ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
	TYP	NO. Q										
0			SILT (ml) - dark grey brown, trace clay, very slight trace of fine sand, trace of shells and organics, soft	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14												14
15												15
			- trace of clay and organics, stiff, no sand									16
												17
												18
												19
												20
												21
												22
												23
												24
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												47
												48
												49
			END OF BOREHOLE AT 15.5m									

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.0m
 ORIGINAL BOREHOLE NUMBER - HI-3

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730237 E515085 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - dark grey brown, trace clay, organics and shells, firm	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10			UNFROZEN									10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.2m
 ORIGINAL BOREHOLE NUMBER - HI-4

SAMPLE TYPE

THIN W. TUBE

NO RECOV.

SPLIT SPOON

HEAVY W. TUBE

VIBROCORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730237 ES15085 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SILT (ml) - (cont'd)									50
16												51
17			END OF BOREHOLE AT 16.6m									52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
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												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.2m
 ORIGINAL BOREHOLE NUMBER - HI-4

SAMPLE TYPE

☐ THIN W. TUBE	☐ HEAVY W. TUBE
☐ NO RECOV.	☐ VIBROCORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-4
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730027 E518143 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - dark grey brown, trace clay, organics and shells, firm	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10					UNFROZEN							10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.0m
 ORIGINAL BOREHOLE NUMBER - HI-5

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOV.

☐ SPLIT SPOON

☐ HEAVY W. TUBE

☐ VIBROCORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-5
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7730027 E516143 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.8 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYPE	NO.	Q										
15			SILT (ml) - (cont'd)									50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
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												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.0m
 ORIGINAL BOREHOLE NUMBER - HI-5

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOV.

☐ SPLIT SPOON

☐ HEAVY W. TUBE

☐ VIBROCORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 HI-5

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7729442 E513742 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - dark grey brown, trace clay, organics and shells, firm	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10				UNFROZEN								10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.6m
 ORIGINAL BOREHOLE NUMBER - HI-6

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOV.

☐ SPLIT SPOON

☐ HEAVY W. TUBE

☐ VIBROCORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-6
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-985.2 N7729442 E513742 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (m)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SILT (ml) - (cont'd)									50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.6m
 ORIGINAL BOREHOLE NUMBER - HI-6

SAMPLE TYPE

THIN W. TUBE
 NO RECOV.
 SPLIT SPOON

HEAVY W. TUBE
 VIBROCURE
 GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-6
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7732626 E514494 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)									
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT													
TYP	NO.	Q																			
0			SILT (ml) - dark grey brown, trace clay, organics and shells, firm	UNFROZEN								0									
1																					1
2																					2
3																					3
4																					4
5																					5
6																					6
7																					7
8																					8
9																					9
10																					10
11																					11
12																					12
13																					13
14																					14
15			NOTE: END OF BOREHOLE at 15.8m									15									

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.0m
 ORIGINAL BOREHOLE NUMBER - HI-8

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-8

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7733114 E502485 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - dark grey brown, trace clay and black organics, stiff	UNFROZEN								0
1												1
2			- soft to firm									2
3												3
4			- soft									4
5												5
6			- trace 50mm gravel									6
7			SAND (SM) - medium grey brown, some silt, fine grained									7
8			- medium brown, saturated									8
9												9
10				UNFROZEN								10
11												11
12			- trace of silt									12
13												13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBER - HI-10

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 HI-10

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7733114 E502485 Z8		Bulk Density Mg/m^3 ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SM) - (cont'd)									50
			- trace silt (SP-SM)									51
16												52
												53
17												54
												55
18												56
												57
19			SILT (ml) - medium grey, firm to stiff, some clay, trace of organics									58
												59
20				UNFROZEN								60
												61
21												62
												63
22												64
												65
23			- dark grey, trace clay and organics, stiff to firm	FROZEN								66
												67
24												68
												69
25												70
												71
26												72
												73
27												74
												75
28												76
												77
29												78
												79
30			END OF BOREHOLE AT 29.4m									80
												81
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBER - HI-10

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-10
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-985.2 N7732620 E502489 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYPE	NO.	Q										
0			SILT (ml) - dark grey, trace of clay, firm	UNFROZEN								0
1												1
2												2
3												3
4			- soft - slightly sandier									4
5												5
6			SAND and GRAVEL (SP-SM) - some silt									6
7												7
8			SILT and SAND (ml) - dark grey, firm									8
9				UNFROZEN								9
10			SAND (SP) - fine grained, uniform, loose, medium dark brown, trace silt									10
11												11
12			- dense									12
13			- trace of silt									13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBER - HI-11

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-11
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-985.2 N7732620 E502489 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
			SAND (SP) - (cont'd)									15
												16
												17
												18
												19
												20
												21
												22
												23
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												28
												29
												30
			END OF BOREHOLE AT 24.5m									31
												32
												33
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												39
												40
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 5.0m
 ORIGINAL BOREHOLE NUMBER - HI-11

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-11
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - HOOPER ISLAND IMPERIAL OIL LTD.				EBA # 1-965.2 N7732143 E502485 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
			CLAY (cl) - dark grey, some silt, firm	UNFROZEN								0
												1
												2
												3
												4
												5
												6
												7
												8
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												46
												47
												48
												49
			NOTE: END OF BOREHOLE at 15.1m									

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.7m
 ORIGINAL BOREHOLE NUMBER - HI-12

SAMPLE TYPE

THIN W. TUBE

NO RECOV.

SPLIT SPOON

HEAVY W. TUBE

VIBROCURE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 HI-12

BOREHOLE LOG AND LABORATORY TEST RESULTS

EBA # 1-965.2
N7728360 E482093 ZB

DEPTH (m)

DEPTH (ft)

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE
NUMBER
P-1

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PELLY WEST IMPERIAL OIL LTD.				EBA # 1-965.2 N7726233 E480806 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT							
TYP	NO. Q													
0		SAND (SM) and SILT - dark brown, sand is very fine, moist to wet, compact to dense, uniform, non-plastic	UNFROZEN									0		
1														1
2														2
3														3
4		SILT (ml) and SAND										4		
5														5
6														6
7														7
8		SILT (ml) - dark brown, moist, stiff to very stiff, uniform low plastic										8		
9														9
10														10
11														11
12		END OF BOREHOLE AT 12.3m										12		
13														13
14														14
15														15

DRILL RIG - MOBILE B-61 AUGER
 DRILLED FROM ICE
 WATER DEPTH - 5.3m
 ORIGINAL BOREHOLE NUMBER - P-2

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 P-2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PELLY WEST IMPERIAL OIL LTD.				EBA / 1-965.2 N7725281 E479943 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (m)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		CLAY (cl) - silty, dark grey, firm-stiff	UNFROZEN									0
1												1
2												2
3		SILT (ml) - clayey, firm, dark grey										3
4												4
5												5
6		- stiff										6
7												7
8		- dark grey-black, trace of organics										8
9		- dark grey, hard										9
10		SILT (ml) - (cont'd) - trace of clay, hard										10
11												11
12		SAND (SP) - silty, fine, uniform, dark grey	UNFROZEN									12
13		- no recovery from 12.6m to 16.3m	FROZEN									13
14												14
15												15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.7m
 ORIGINAL BOREHOLE NUMBER - P-3

SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 P-3
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - PELLY WEST IMPERIAL OIL LTD.				EBA # 1-965.2 N7725281 E479943 Z8		Bulk Density Mg/m^3 ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SAND (SP) - (cont'd)									50
16			- some silt, fine, medium to dark brown, high ice content									51
17			END OF BOREHOLE AT 17.5m									52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.7m
 ORIGINAL BOREHOLE NUMBER - P-3

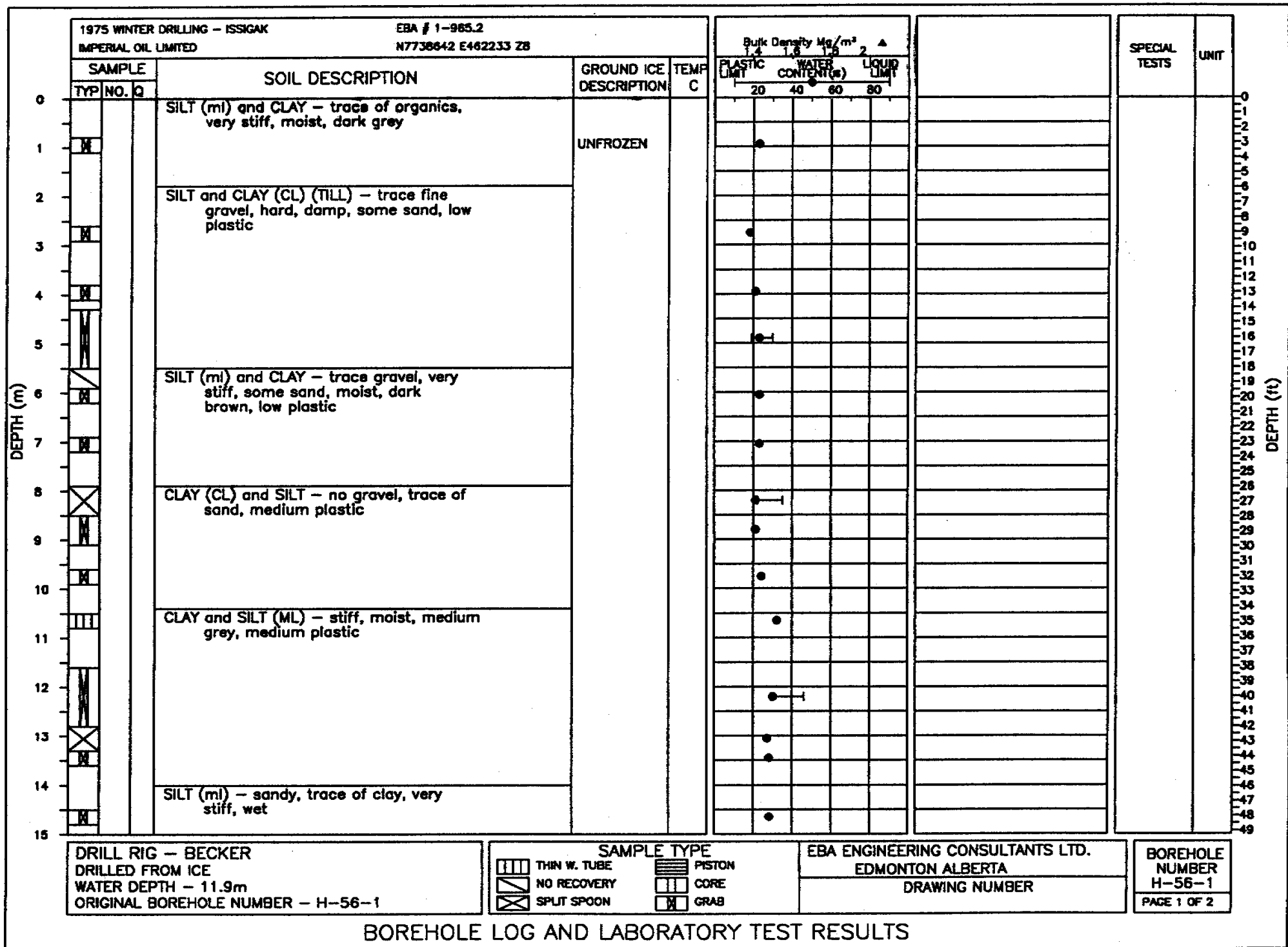
SAMPLE TYPE

THIN W. TUBE	HEAVY W. TUBE
NO RECOV.	VIBROCORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 P-3
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS



1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738642 E462233 Z8		Bulk Density Mg/m^3 ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (m)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
15		SILT (ml) - (cont'd)									50
16											51
17											52
18											53
19		END OF BOREHOLE AT 18.1m	UNFROZEN								54
20											55
21											56
22											57
23											58
24											59
25											60
26											61
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 11.9m
 ORIGINAL BOREHOLE NUMBER - H-56-1

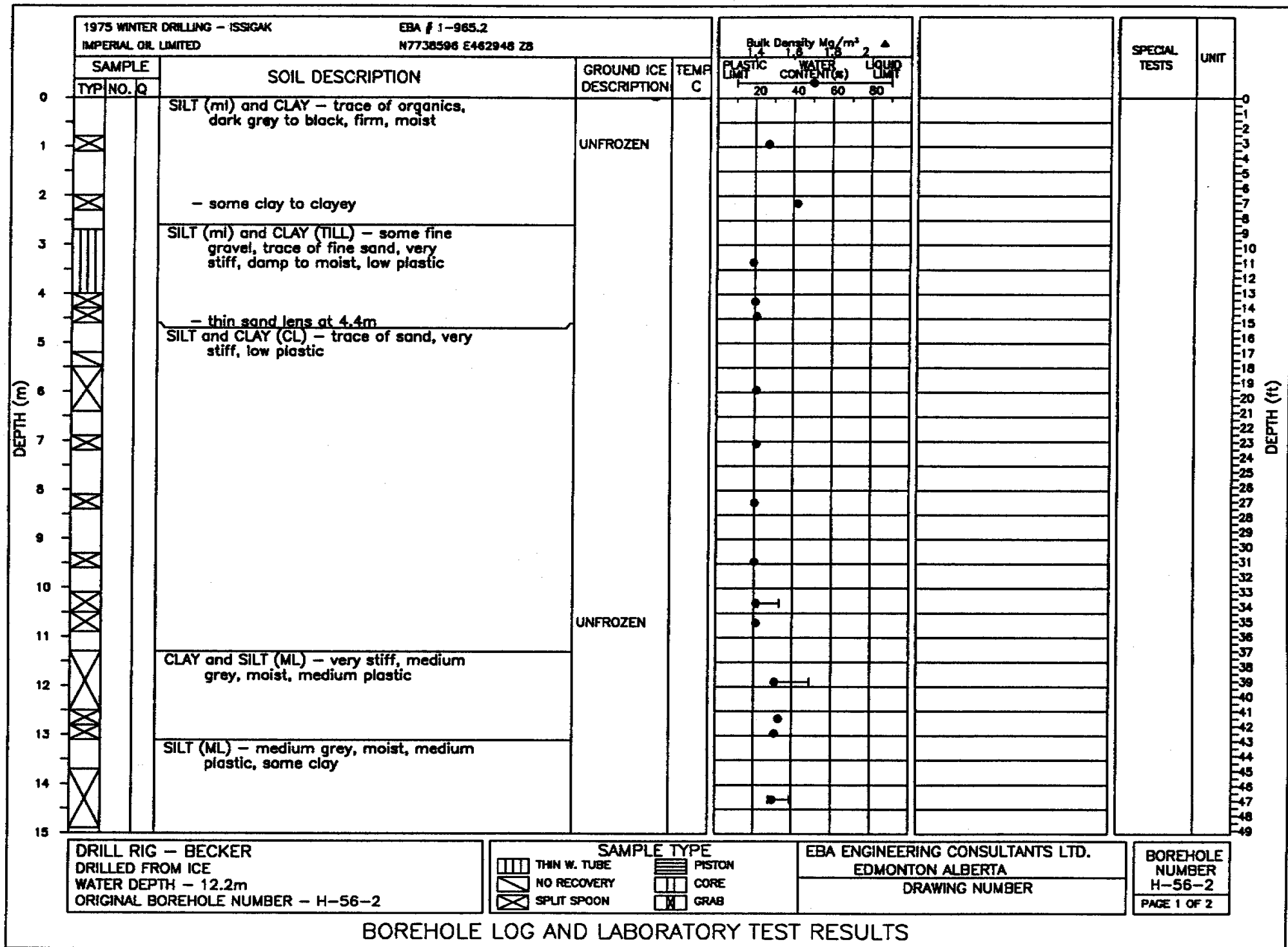
SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 H-56-1
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS



1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738596 E462948 Z8								
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲			SPECIAL TESTS	UNIT	DEPTH (ft)		
TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
15		SILT (ML) - (cont'd) - trace fine sand, very stiff, wet - trace of clay								50		
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25		END OF BOREHOLE AT 22.7m	UNFROZEN							60		
26												61
27												62
28												63
29												64
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 12.2m
 ORIGINAL BOREHOLE NUMBER - H-56-2

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 H-56-2
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LIMITED				EBA # 1-965.2 N7739397 E463461 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE TYP NO. Q	SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
0	NO RECOVERY - assumed to be silt and clay, very soft	UNFROZEN										0
1												1
2												2
3												3
4												4
5	SILT (ml) and CLAY (TILL) - some fine gravel, trace of sand, stiff, moist, low plastic											5
6	SILT and CLAY (CL) - trace of sand, stiff moist, some pebbles											6
7												7
8	- low plastic											8
9												9
10												10
11												11
12	- gravel to 12mm, some sand											12
13												13
14												14
15											15	

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 12.2m ORIGINAL BOREHOLE NUMBER - H-56-3	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER H-56-3 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LIMITED				EBA # 1-965.2 N7739397 E463461 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
15		CLAY (cl) - silty, low plastic, medium grey, trace of organics	UNFROZEN									50	
16		- stiff, damp to moist											51
17													52
18		END OF BOREHOLE AT 17.4m											53
19													54
20													55
21													56
22													57
23													58
24													59
25													60
26													61
27													62
28													63
29													64
30												65	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 12.2m
 ORIGINAL BOREHOLE NUMBER - H-56-3

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 H-56-3
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738150 E463137 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT			
TYP	NO.	Q									
0			SILT and CLAY (CL) - hard, trace fine gravel, trace of sand, dark grey-black, highly organic, till-like								
1											
2			- medium plastic	UNFROZEN							
3				Vx 1 - 5%							
4			SILT and CLAY (cl) (TILL) - low plastic, very stiff	Nbn							
5				Vs - 5%							
6			SILT and CLAY (CL) - some fine gravel, low plastic								
7				Vs 15 - 20%							
8											
9			- some coarse sand, till-like, medium plastic	Vs 5 - 10% UNFROZEN							
10				Vx - trace							
11			CLAY (CL) - silty, very stiff, medium grey, low plastic, trace of sand	UNFROZEN							
12											
13											
14											
15			SILT (ml) - low plastic to non plastic, moist to damp, stiff, trace sand								

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 11.3m
 ORIGINAL BOREHOLE NUMBER - H-56-4

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 H-56-4
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LIMITED				EBA # 1-965.2 N7738150 E463137 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)		
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT						
TYP	NO. Q												
15		SILT (ml) - (cont'd) - some clay, firm, moist to wet									50		
16													51
17													52
18													53
19													54
20													55
21													56
22													57
23													58
24													59
25		END OF BOREHOLE at 20.7m	UNFROZEN								60		
26											61		
27											62		
28											63		
29											64		
30											65		
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DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 11.3m
ORIGINAL BOREHOLE NUMBER - H-56-4

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
H-56-4
PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LTD			EBA # 1-965.2 N7739452 E462199 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE TYP NO. Q	SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0	SILT (ml) and CLAY - some sand and gravel, compact, low plastic, possibly till	UNFROZEN								0
1										1
2										2
3	SILT (ml) and CLAY - trace of fine gravel, moist, low plastic, compact	FROZEN Vx 5%								3
4		UNFROZEN								4
5										5
6										6
7	- trace of gravel, stiff, medium plastic	FROZEN Vx 5%								7
8	CLAY (CL) and SILT									8
9										9
10										10
11	CLAY-SILT (ML) - medium plastic, compact, trace of shells	UNFROZEN								11
12	END OF BOREHOLE at 11.9m									12
13										13
14										14
15										15

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 12.5m
ORIGINAL BOREHOLE NUMBER - 302

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE
NUMBER
302

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LTD.				EBA # 1-965.2 N7739952 E462201 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT	DEPTH (m)				
TYP	NO. Q											
		NO RECOVERY - possibly silt or silty clay	UNFROZEN					0				
		SILT (ml) and CLAY (TILL) - some fine to medium gravel and some sand, low plastic, stiff						1				
									2			
									3			
									4			
		CLAY (CL) and SILT - trace of fine gravel, moist, medium plastic, dark grey						5				
									6			
									7			
									8			
		SILT (ml) and CLAY - some gravel, moist, stratified, dark grey						9				
									10			
									11			
									12			
		CLAY (CL) and SILT - fissured, some salt stains and slicken sides, dark grey moist, stiff						13				
									14			
									15			
									16			
		END OF BOREHOLE at 11.3m	UNFROZEN					17				
									18			
									19			
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 12.6m
 ORIGINAL BOREHOLE NUMBER - 303

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 303

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LTD				EBA # 1-965.2 N7739949 E462721 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.8 2.2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT WATER CONTENT (%) LIQUID LIMIT							
TYP	NO.				Q							
0												0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14												14
15												15

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 12.8m ORIGINAL BOREHOLE NUMBER - 304	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER 304
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK				EBA # 1-965.2											
IMPERIAL OIL LTD				N7739962 E461700 ZB											
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲						SPECIAL TESTS	UNIT	DEPTH (m)		
TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT								
		SILT (ml) - trace of fine gravel, wood fragments, wet, stratified, very loose, dark grey	UNFROZEN											0	
														1	
														2	
														3	
														4	
														5	
		SILT (ml) and CLAY - some fine sand lenses, some organics, loose, moist to wet												6	
														7	
														8	
		SILT (ml) - some sand, very fine, trace of organics												9	
														10	
		SILT AND CLAY (CH) - moist, compact, stratified, dark grey												11	
														12	
														13	
		- high plastic												14	
														15	
														16	
		SILT AND CLAY (ch) - hard drilling												17	
														18	
														19	
														20	
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														100	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 12.6m
 ORIGINAL BOREHOLE NUMBER - 305

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 305

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - ISSIGAK IMPERIAL OIL LTD			EBA # 1-965.2 N7740450 E462196 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE TYP NO. Q		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0		SILT (ml) AND SAND - layers of fine silty sand and silt with some clay, wet, compact	UNFROZEN								0
1											1
2											2
3		SILT (ml) - some clay, some fine gravel, compact	FROZEN Vx-Vs 5-20%								3
4											4
5		SILT AND CLAY (CL) - trace of sand, medium plastic	Vx-Vs 5-70%								5
6			ICE CRYSTALS OR THIN LENSES IN AN UNFROZEN SOIL MATRIX								6
7											7
8		- trace of fine to medium gravel, low plastic									8
9											9
10		CLAY (CL) - silty, moist, dark grey, medium plastic	Vs-Vx - 20% LENSES TO 38mm								10
11		END OF BOREHOLE at 11.1m	Vs-Vx - 20% LENSES TO 38mm FROZEN								11
12											12
13											13
14											14
15											15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 12.8m
 ORIGINAL BOREHOLE NUMBER - 306

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE
 NUMBER
 306

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712506 E466973 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				PLASTIC LIMIT 20 40 60 80				WATER CONTENT (%) 20 40 60 80				LIQUID LIMIT 20 40 60 80				SPECIAL TESTS		UNIT	
SAMPLE		SOIL DESCRIPTION		GROUND ICE DESCRIPTION		TEMP C																			
TYP	NO.	Q																							
0			SILT (ml) - dark grey brown, trace of sand trace of gravel, some clay, low plastic, stiff, moist		UNFROZEN																				
1																									
2																									
3			SILT (ml) - soft, moist, uniform, low plastic																						
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14			SAND (SP) - dark grey-brown, some gravel, fine to medium grained, trace organics																						
15																									

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 3.4m
ORIGINAL BOREHOLE NUMBER - G-A-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE
NUMBER
G-A-1
PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712506 E466973 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SAND (SP) AND GRAVEL - trace to some silt, dark brown	UNFROZEN								50	
16		CLAY (CL) (TILL) - silty, trace sand, trace gravel, stiff, moist, low plastic										51
17		END OF BOREHOLE at 17.1m										52
18											53	
19											54	
20											55	
21											56	
22											57	
23											58	
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.4m
 ORIGINAL BOREHOLE NUMBER - G-A-1

SAMPLE TYPE

☐ THIN W. TUBE	☐ PISTON
☐ NO RECOVERY	☐ CORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-1
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712801 E467085 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.8 1.6 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - dark grey-brown, soft, uniform moist, low plastic	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
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48												48
49												49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.4m ORIGINAL BOREHOLE NUMBER - G-A-2	SAMPLE TYPE ☐ THIN W. TUBE ☐ PISTON ☐ NO RECOVERY ☐ CORE ☐ SPLIT SPOON ☐ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER G-A-2 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712801 E467065 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO.	Q											
15			SAND AND GRAVEL (GP) - fairly well graded, trace silt	UNFROZEN								50	
16			- becomes gravelly sand (SP)										51
17			SILT (ml) (TILL) - dark grey-brown, some clay, some sand, trace gravel, stiff, moist										52
18			END OF BOREHOLE at 18.3m									53	
19												54	
20												55	
21												56	
22												57	
23												58	
24												59	
25												60	
26												61	
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												97	
												98	

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.4m
 ORIGINAL BOREHOLE NUMBER - G-A-2

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-2
 PAGE 2 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713090 E467151 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - dark grey-brown soft, uniform, low plastic	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10		SAND (SM) - dark brown, trace gravel, fine grained										10
11												11
12		GRAVEL (GP) - sandy, poorly graded, dark brown	UNFROZEN									12
13												13
14		SILT (ml) (TILL) - some clay, some sand, trace gravel, stiff, moist										14
15		END OF BOREHOLE at 14.6m										15

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.4m ORIGINAL BOREHOLE NUMBER - G-A-3	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER G-A-3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713362 E467252 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ML) - dark grey, soft, wet, uniform, trace of organics, twigs, rootlets, chunks of wood	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
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44												44
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47												47
48												48
49												49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.2m ORIGINAL BOREHOLE NUMBER - G-A-4	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER G-A-4 PAGE 1 OF 2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND				EBA # 1-965.2		IMPERIAL OIL LTD				N7713382 E467252 Z8											
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲								SPECIAL TESTS	UNIT	DEPTH (m)					
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT	1.4	1.6	1.8	2	2.2				2.4				
			SILT (ml) (TILL) - medium grey, trace gravel, some sand, stiff moist													50					
																51					
																52					
																53					
																54					
																55					
																56					
			END OF BOREHOLE at 17.2m													57					
																58					
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																61					
																62					
																63					
																64					
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																96					
																97					
																98					

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.2m
 ORIGINAL BOREHOLE NUMBER - G-A-4

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-4
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713614 E467334 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
	TYP	NO. Q										
0			SILT (ml) - dark grey, soft, moist	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
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DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.0m ORIGINAL BOREHOLE NUMBER - G-A-5	SAMPLE TYPE ☐ THIN W. TUBE ☐ NO RECOVERY ☐ SPLIT SPOON ☐ PISTON ☐ CORE ☐ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER G-A-5
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NOTE: END OF BOREHOLE at 14.9m

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713904 E467435 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.8 1.9 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - dark grey, soft, wet	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10		- trace of gravel										10
11												11
12												12
13		SILT (ml) (FILL) - medium grey, trace fine gravel, some sand, moist, very stiff										13
14												14
15		NOTE: END OF BOREHOLE at 14.8m										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.2m
 ORIGINAL BOREHOLE NUMBER - G-A-6

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-6

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7714223 E467541 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ML) - dark grey, soft, wet	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
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47												47
48												48
49												49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.7m
 ORIGINAL BOREHOLE NUMBER - G-A-7

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-7
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7714223 E467541 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
15			SILT (ML) - dark grey, trace of clay, firm moist									50
16												51
17			- trace of organics									52
18			- trace of sand, very wet, very soft									53
19												54
20			SILT (ml) AND SAND - dark brown-grey, fine grained, wet									55
21												56
22			SILT (ml) - dark grey, stiff, moist, trace of black organics									57
23												58
24												59
25			- trace of clay, very stiff									60
26												61
27												62
28												63
29												64
30												65
												66
												67
												68
												69
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DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.7m
 ORIGINAL BOREHOLE NUMBER - G-A-7

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-7
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7714223 E467541 ZB		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
TYP	NO.	Q										
30			SILT (ml) - (cont'd)	UNFROZEN								99
31												100
32												101
33												102
34												103
35												104
36												105
37												106
38												107
39												108
40												109
41												110
42												111
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												146
												147

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.7m
 ORIGINAL BOREHOLE NUMBER - G-A-7

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-A-7
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING -- GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712301 E467967 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
	TYP	NO. Q										
0			SILT (m) - dark grey, trace of fine sand, soft, wet, interbedded with black organics	UNFROZEN								0
1												1
2												2
3												3
4												4
5			- trace of clay									5
6												6
7												7
8												8
9												9
10												10
11			- some organics									11
12												12
13			SAND (SP) - gravelly, dark brown, fine grained, trace of silt									13
14												14
15			- trace of gravel and silt									15

DRILL RIG -- BECKER
 DRILLED FROM ICE
 WATER DEPTH -- 2.9m
 ORIGINAL BOREHOLE NUMBER -- G-C-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-C-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712301 E467967 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
	TYP	NO. Q										
15	[Pattern]		SAND (SP) - (cont'd) - some gravel, trace silt	UNFROZEN								50
16			SILT (ml) (TILL) - medium grey, some sand, some gravel, very stiff, moist								51	
17			END OF BOREHOLE at 17.5m							52		
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
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												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.9m
 ORIGINAL BOREHOLE NUMBER - G-C-1

SAMPLE TYPE

[Pattern] THIN W. TUBE

[Pattern] NO RECOVERY

[Pattern] SPLIT SPOON

[Pattern] PISTON

[Pattern] CORE

[Pattern] GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA

DRAWING NUMBER

BOREHOLE NUMBER
 G-C-1

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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND
IMPERIAL OIL LTD

EBA # 1-965.2
N7712591 E468057 ZB

DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
	TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0			SILT (ML) - dark grey, trace fine sand, soft, wet, clayey	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9			- some black organics									9
10			SILT AND SAND (ml)									10
11			SAND (SP) AND GRAVEL - dark grey, trace of silt									11
12			- less gravel									12
13				UNFROZEN								13
14												14
15			SILT (ml) (TILL) - some sand, trace gravel NOTE: END OF BOREHOLE at 15.1m									15

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 2.9m
ORIGINAL BOREHOLE NUMBER - G-C-2

SAMPLE TYPE

	THIN W. TUBE		PISTON
	NO RECOVERY		CORE
	SPLIT SPOON		GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
G-C-2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND
IMPERIAL OIL LTD

EBA # 1-985.2
N7712876 E468146 Z8

DEPTH (m)	SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
	TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0				SILT (ml) - trace of fine sand, soft, wet dark grey	UNFROZEN		20	40	60	80			0
1													1
2													2
3													3
4													4
5													5
6				- dark grey to black, trace of fine sand and clay, very stiff, moist, some organics									6
7													7
8													8
9				- some fine sand, trace of gravel and clay, firm, moist, wet									9
10				SAND (SP) - gravelly, medium grey, 19mm maximum, wet, trace of silt									10
11													11
12				- becoming silty									12
13				SAND (SM) - silty, trace of clay, some fine gravel, stiff, moist, some organics									13
14													14
15				NOTE: END OF BOREHOLE at 14.8m									15

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 3.2m
ORIGINAL BOREHOLE NUMBER - G-C-3

SAMPLE TYPE
☐ THIN W. TUBE ☐ PISTON
☐ NO RECOVERY ☐ CORE
☐ SPLIT SPOON ☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
G-C-3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-985.2 N7713164 E468250 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT					
TYP	NO.											
0		SILT (ml) - trace of fine sand, soft, wet, dark grey	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
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												49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.0m
 ORIGINAL BOREHOLE NUMBER - G-C-4

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-C-4

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-985.2 N7713412 E468340 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
	TYP	NO. Q										
0			SILT (ml) - trace of fine sand, soft, wet, dark grey	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8			- trace of organics									8
9												9
10												10
11			SAND (SM) - silty, grey-brown uniform, fine to medium									11
12			SAND (SM) - gravelly, some silt	UNFROZEN								12
13			SILT (ml) (TILL) - some fine gravel, trace of sand and clay, grey, stiff									13
14												14
15			NOTE: END OF BOREHOLE at 15.1m									15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.9m
 ORIGINAL BOREHOLE NUMBER - G-C-5

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-C-5

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713713 E468433 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)									
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT													
TYP	NO.	Q																			
0			SILT (ML) - grey-brown, sandy, moist, soft to firm, low plastic	UNFROZEN								0									
1																					1
2																					2
3																					3
4																					4
5																					5
6																					6
7																					7
8																					8
9																					9
10			- trace of fine sand and clay, soft, wet									10									
11																					11
12																					12
13																					13
14																					14
15																					15
16																					16
17																					17
18																					18
19																					19
20			SILT (ml) - sandy, trace clay, fine gravel moist, very stiff to hard	UNFROZEN								20									
21																					21
22																					22
23																					23
24																					24
25																					25
26																					26
27																					27
28																					28
29																					29
30			NOTE: END OF BOREHOLE at 14.9m									30									
31																					31
32																					32
33																					33
34																					34
35																					35
36																					36
37																					37
38																					38
39																					39
40												40									
41												41									
42												42									
43												43									
44												44									
45												45									
46												46									
47												47									
48												48									
49												49									

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 3.0m
 ORIGINAL BOREHOLE NUMBER - G-C-6

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-C-6

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-985.2 N7714005 E488528 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - dark grey, trace of fine sand, soft, wet	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14		SILT (ml) (TILL) - trace of sand and clay, some fine gravel, stiff, moist										14
15		END OF BOREHOLE at 14.6m										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.6m
 ORIGINAL BOREHOLE NUMBER - G-C-7

SAMPLE TYPE

THIN W. TUBE

NO RECOVERY

SPLIT SPOON

PISTON

CORE

GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-C-7

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712113 E468941 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - dark grey, soft, wet	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11		CLAY (cl) (TILL) - silty, medium to dark brown, some fine gravel, stiff, moist										11
12		SILT (ml) (TILL) - trace of clay, dark grey, wet, stiff										12
13												13
14												14
15		NOTE: END OF BOREHOLE at 15.4m										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.6m
 ORIGINAL BOREHOLE NUMBER - G-E-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-E-1

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712399 E469029 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
0		SILT (ml) - dark grey, soft, wet, trace of fine sand	UNFROZEN									0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11		SILT (ml) (TILL) - trace of clay, some gravel, stiff, moist to wet										11
12		- trace of gravel										12
13												13
14												14
15		NOTE: END OF BOREHOLE at 15.2m										15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.7m
 ORIGINAL BOREHOLE NUMBER - G-E-2

SAMPLE TYPE

☐ THIN W. TUBE
☐ NO RECOVERY
☐ SPLIT SPOON

☐ PISTON
☐ CORE
☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-E-2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND
IMPERIAL OIL LTD

EBA # 1-965.2
N7712671 E469123 Z8

DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
	TYP	NO. Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0			SILT (ml) - dark grey, soft, wet, trace of fine sand	UNFROZEN		20	40	60	80			0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11			- firm									11
12			SILT (ml) (TILL) - trace sand and clay, stiff, moist, some fine gravel									12
13												13
14												14
15			NOTE: END OF BOREHOLE at 15.4m									15
												16
												17
												18
												19
												20
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												46
												47
												48
												49

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 2.6m
ORIGINAL BOREHOLE NUMBER - G-E-3

SAMPLE TYPE
☐ THIN W. TUBE ☐ PISTON
☐ NO RECOVERY ☐ CORE
☐ SPLIT SPOON ☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
G-E-3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7712967 E469206 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
TYP	NO.	Q										
0			SILT (ml) - soft, wet, dark grey	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14												14
15												15
16												16
17												17
18												18
19												19
20												20
21												21
22												22
23												23
24												24
25												25
26												26
27												27
28												28
29												29
30												30
31												31
32												32
33												33
34												34
35												35
36												36
37												37
38												38
39												39
40												40
41												41
42												42
43												43
44												44
45												45
46												46
47												47
48												48
49												49

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 2.7m ORIGINAL BOREHOLE NUMBER - G-E-4	SAMPLE TYPE ☐ THIN W. TUBE ☐ NO RECOVERY ☐ SPLIT SPOON ☐ PISTON ☐ CORE ☐ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER G-E-4
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713225 E469293 Z8		Bulk Density Mg/m ³ ▲					SPECIAL TESTS	UNIT	
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT WATER CONTENT(%) LIQUID LIMIT							
TYP	NO.	Q				20	40	60	80				
0			SILT (ml) - dark grey, trace of fine sand, soft to firm, wet	UNFROZEN									0
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15													15
6			- some organics, firm moist to wet										16
7			- dark grey to black, trace of clay and fine sand										17
8			- sandy (fine), medium grey-brown, wet, soft to firm										18
9			SILT (ml)(TILL) - clayey, trace of fine sand, some fine gravel, firm to stiff, mottled grey-brown										19
													20
													21
													22
													23
													24
													25
													26
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													43
													44
													45
													46
													47
													48
													49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.7m
 ORIGINAL BOREHOLE NUMBER - G-E-5

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-E-5
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713225 E469293 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SILT (m) - (cont'd) END OF BOREHOLE at 15.2m	UNFROZEN									50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
28												63
29												64
30												65
												66
												67
												68
												69
												70
												71
												72
												73
												74
												75
												76
												77
												78
												79
												80
												81
												82
												83
												84
												85
												86
												87
												88
												89
												90
												91
												92
												93
												94
												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.7m
 ORIGINAL BOREHOLE NUMBER - G-E-5

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-E-5
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND
IMPERIAL OIL LTD

EBA # 1-965.2
N7713522 E469396 Z8

DEPTH (m)	SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m^3 ▲				SPECIAL TESTS	UNIT	DEPTH (ft)
	TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
0				SILT (ml) - trace of sand, dark brown, soft, moist to wet, trace of organics at top	UNFROZEN		20	40	60	80			0
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9				- firm									9
10				- trace of organics									10
11													11
12													12
13				- trace of gravel									13
14				SAND AND GRAVEL (SP) - trace of silt, maximum 25mm									14
15				SAND (SP) - some gravel, trace of silt, well graded, 38mm maximum	UNFROZEN								15

DRILL RIG - BECKER
DRILLED FROM ICE
WATER DEPTH - 2.9m
ORIGINAL BOREHOLE NUMBER - G-E-6

SAMPLE TYPE
☐ THIN W. TUBE ☐ PISTON
☐ NO RECOVERY ☐ CORE
☐ SPLIT SPOON ☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
EDMONTON ALBERTA
DRAWING NUMBER

BOREHOLE NUMBER
G-E-6
PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-985.2 N7713522 E489396 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
	TYP	NO. Q										
15			SAND (SP) - (cont'd)									50
16			SILT (ml)(TILL) - traces of clay and sand some gravel, 19mm maximum, very stiff, moist									51
17			- hard, some clay									52
18			END OF BOREHOLE at 17.5m									53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
26												61
27												62
28												63
29												64
30												65
												66
												67
												68
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												92
												93
												94
												95
												96
												97
												98

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.9m
 ORIGINAL BOREHOLE NUMBER - G-E-6

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-E-6
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - GARRY ISLAND IMPERIAL OIL LTD				EBA # 1-965.2 N7713813 E469489 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT				
	NO.	Q										
0			SILT (ml) - trace of fine sand, soft, moist to wet, dark grey	UNFROZEN								0
1												1
2												2
3												3
4												4
5												5
6												6
7												7
8												8
9												9
10												10
11												11
12												12
13												13
14												14
15												15
16												16
17												17
18												18
19												19
20												20
21												21
22												22
23												23
24												24
25												25
26												26
27												27
28												28
29												29
30												30
31												31
32												32
33												33
34												34
35												35
36												36
37												37
38												38
39												39
40												40
41												41
42												42
43												43
44												44
45												45
46												46
47												47
48												48
49												49

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 2.9m
 ORIGINAL BOREHOLE NUMBER - G-E-7

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 G-E-7

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS IMPERIAL OIL LIMITED				EBA # 1-965.2 N7877896 E455083 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
0		SILT (ml) - dark grey, trace of fine sand	FROZEN Nbn								0
1											1
2											2
3											3
4											4
5		- sandy									5
6		SAND (sm) - dark grey, silty, fine grained, uniform									6
7											7
8											8
9		SILT (ml) - dark grey, sandy									9
10											10
11											11
12											12
13		- trace of sand	Nbn Vx - 5%								13
14											14
15			Nbn								15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 0.6m
 ORIGINAL BOREHOLE NUMBER - H-34-1

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 H-34-1
 PAGE 1 OF 2

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS IMPERIAL OIL LIMITED				EBA # 1-985.2 N7877896 E455063 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)
DEPTH (m)	SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT(%)	LIQUID LIMIT			
	TYP	NO. Q									
15			SILT (ml) - (cont'd)								50
16				Nbn-Vx-5%							51
17				Nbn							52
18											53
19											54
20				Nbn-Vx 5%							55
21				Vr - 15%							56
22				Nbn - Vx-5%							57
23											58
24				Vr - 10-15%							59
25				Nbn							60
26				Vr - 5%							61
27				UNFROZEN							62
28			- clayey, stiff								63
29											64
30			END OF BOREHOLE AT 29.6m								65

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 0.6m
 ORIGINAL BOREHOLE NUMBER - H-34-1

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 H-34-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS IMPERIAL OIL LIMITED				EBA / 1-985.2 N7680338 E453084 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYPE	NO. Q										
0		SILT (ml) - dark grey, trace fine sand, soft, wet									0
1			UNFROZEN								1
2											2
3											3
4											4
5			FROZEN Nbn								5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.8m
 ORIGINAL BOREHOLE NUMBER - B-45-1

SAMPLE TYPE

☐ THIN W. TUBE

☐ NO RECOVERY

☐ SPLIT SPOON

☐ PISTON

☐ CORE

☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-45-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS IMPERIAL OIL LIMITED				EBA # 1-965.2 N7680338 E453084 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0				SPECIAL TESTS	UNIT
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO. Q										
15		SILT (ml) - (cont'd)									50
16	X										51
17											52
18											53
19											54
20	X	- firm, moist	UNFROZEN								55
21	M										56
22	M										57
23		- trace of clay									58
24											59
25	M										60
26	M	- stiff									61
27	M		UNFROZEN								62
28		END OF BOREHOLE AT 27.7m									63
29											64
30											65

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.8m
 ORIGINAL BOREHOLE NUMBER - B-45-1

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 B-45-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS				EBA # 1-965.2											
IMPERIAL OIL LIMITED				N7682119 E450979 Z8											
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)			
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
			SILT (ml) - dark grey brown, soft, wet, uniform	UNFROZEN								0			
												1			
												2			
												3			
												4			
												5			
												6			
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												48			
												49			

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.7m
 ORIGINAL BOREHOLE NUMBER - C-56-1

SAMPLE TYPE

THIN W. TUBE	PISTON
NO RECOVERY	CORE
SPLIT SPOON	GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 C-56-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS IMPERIAL OIL LIMITED				EBA / 1-965.2 N7582119 E450979 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE		SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT					
TYP	NO. Q											
15		SILT (ml) - (cont'd)										50
16												51
17												52
18												53
19												54
20												55
21												56
22												57
23												58
24												59
25												60
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												97
												98

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 1.7m ORIGINAL BOREHOLE NUMBER - C-56-1	SAMPLE TYPE THIN W. TUBE NO RECOVERY SPLIT SPOON PISTON CORE GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER C-56-1 PAGE 2 OF 3
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - OLIVER ISLANDS IMPERIAL OIL LIMITED				EBA # 1-965.2 N7582119 E450979 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2				SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT				
TYP	NO.	Q										
30			CLAY (cl) - (cont'd)									99
31			END OF BOREHOLE at 30.8m									100
32												101
33												102
34												103
35												104
36												105
37												106
38												107
39												108
40												109
41												110
42												111
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												144
												145
												146
												147

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 1.7m
 ORIGINAL BOREHOLE NUMBER - C-56-1

SAMPLE TYPE

☐ THIN W. TUBE	☐ PISTON
☐ NO RECOVERY	☐ CORE
☐ SPLIT SPOON	☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 C-56-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - NETSERK NORTH F-40				EBA # 1-965.2											
IMPERIAL OIL LIMITED				N7727629 E444886 Z8											
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)			
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
						20	40	60	80						
0			SILT (FI) (ml) - some sandy gravel, fine 40mm maximum, dark grey	UNFROZEN								0			
1												1			
2			- gravelly, 20mm maximum									2			
3												3			
4			ORIGINAL SEABED at 4.0m									4			
5			SILT (ml) - firm, dark grey									5			
6												6			
7			END OF BOREHOLE at 6.4m									7			
8												8			
9												9			
10												10			
11												11			
12												12			
13												13			
14												14			
15												15			

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.7m ORIGINAL BOREHOLE NUMBER - F-40-1		SAMPLE TYPE ☐ THIN W. TUBE ☐ HEAVY W. TUBE ☐ NO RECOV. ☐ VIBROCORE ☐ SPLIT SPOON ☐ GRAB		EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER		BOREHOLE NUMBER F-40-1
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - NETSERK NORTH F-40				EBA # 1-965.2											
IMPERIAL OIL LIMITED				N7727619 E464841 ZB											
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m ³ ▲				SPECIAL TESTS	UNIT	DEPTH (ft)			
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
0			SILT (FILL)(ml) - some gravel, 12mm maximum, trace of fine sand	UNFROZEN								0			
1												1			
2			- trace of gravel									2			
3			- gravelly, some fine sand, dark brown									3			
4			ORIGINAL SEABED at 4.3m									4			
5			SILT (ml) - firm, dark grey									5			
6												6			
7			END OF BOREHOLE at 6.7m									7			
8												8			
9												9			
10												10			
11												11			
12												12			
13												13			
14												14			
15												15			

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 3.4m ORIGINAL BOREHOLE NUMBER - F-40-2		SAMPLE TYPE ☐ THIN W. TUBE ☐ HEAVY W. TUBE ☐ NO RECOV. ☐ VIBROCORE ☐ SPLIT SPOON ☐ GRAB		EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER		BOREHOLE NUMBER F-40-2
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BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - NETSERK NORTH F-40 IMPERIAL OIL LIMITED				EBA # 1-965.2 N7727595 E464815 Z8		Bulk Density Mg/m ³ ▲ 1.4 1.6 1.8 2.0			SPECIAL TESTS	UNIT	DEPTH (ft)
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT			
TYP	NO.	Q									
0			SILT (FILL)(ml) - sandy, some gravel, dark grey	UNFROZEN							0
1											1
2			GRAVEL (FILL)(gp) - sandy, silty, fine uniform								2
3			ORIGINAL SEA BED at 3.4m								3
4			SILT (ml) - some shells and organics firm to stiff, dark grey								4
5											5
6			END OF BOREHOLE at 5.8m								6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15

DRILL RIG - BECKER
 DRILLED FROM ICE
 WATER DEPTH - 4.3m
 ORIGINAL BOREHOLE NUMBER - F-40-3

SAMPLE TYPE

☐ THIN W. TUBE
☐ NO RECOV.
☐ SPLIT SPOON

☐ HEAVY W. TUBE
☐ VIBROCORE
☐ GRAB

EBA ENGINEERING CONSULTANTS LTD.
 EDMONTON ALBERTA
 DRAWING NUMBER

BOREHOLE NUMBER
 F-40-3

BOREHOLE LOG AND LABORATORY TEST RESULTS

1975 WINTER DRILLING - NETSERK NORTH F-40				EBA # 1-965.2											
IMPERIAL OIL LIMITED				N7727579 E464871 ZB											
SAMPLE			SOIL DESCRIPTION	GROUND ICE DESCRIPTION	TEMP C	Bulk Density Mg/m^3 ▲					SPECIAL TESTS	UNIT	DEPTH (ft)		
TYP	NO.	Q				PLASTIC LIMIT	WATER CONTENT (%)	LIQUID LIMIT							
						20	40	60	80						
0			SILT (FILL)(ml) - trace of gravel and fine sand, 12mm maximum	UNFROZEN									0		
1													1		
2													2		
3													3		
4													4		
5													5		
6													6		
7													7		
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48													48		
49													49		

DRILL RIG - BECKER DRILLED FROM ICE WATER DEPTH - 4.6m ORIGINAL BOREHOLE NUMBER - F-40-26	SAMPLE TYPE ☐ THIN W. TUBE ☐ HEAVY W. TUBE ☐ NO RECOV. ☐ VIBROCORE ☐ SPLIT SPOON ☐ GRAB	EBA ENGINEERING CONSULTANTS LTD. EDMONTON ALBERTA DRAWING NUMBER	BOREHOLE NUMBER F-40-26
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BOREHOLE LOG AND LABORATORY TEST RESULTS