DESIGN

No. REQUIRED	04
DESCRIPTION	5'-0" [1524] C.L. DIA. x 6'-0" [1829] HIGH
CAPACITY (DESIGN)	28 BBL (US, DRY) [4.5 m³]
SERVICE	POP TANK
DESIGN CODES	LMG GOOD INDUSTRY PRACTICES
SPECIFICATIONS	N/A
STAMPING	N/R
DESIGN PRESSURE	16 oz [6.89 kPag]
OPERATING PRESSURE	N/A
DESIGN TEMPERATURE	11°F [-11.6°C]
MDMT	11°F [-11.6°C]
SPECIFIC GRAVITY	1.0
JOINT EFFICIENCY	SHELL: 0.85 / ROOF: N/A / BOTTOM: N/A
CORROSION ALLOWANCE	SHELL: NIL / ROOF: NIL / BOTTOM: NIL / NOZZLES: NIL / PIPING: NIL
ROOF LOADS	N/A
WIND LOADS	N/A
SEISMIC LOADS	N/A
FOUNDATION TYPE	UNKNOWN (BY OTHERS)
EST. WEIGHTS:	
DRESSED	1,366 LBS [620 kg]
FULL OF WATER	7,305 LBS [3313 kg]

MATERIALS

SHELL				A-36
ROOF				A-36
BOTTOM				A-36
REINFORCING PADS				N/A
FAB'D FLANGE				A-36 OR EQ.
FAB'D NECK				A-36 OR EQ.
NOZZLE FLANGE	EXT:	A-105	BRK. FLG.:	N/A
NOZZLE NECK	ROOF:	A-53 GR. B	SHELL:	A-53 GR. B
COUPLINGS/FORGINGS	ROOF:	A-105	SHELL:	N/A
PIPING (INT.): FLANGE	PRESSURE:	N/A	NON-PRESS.:	N/A
FITTING	PRESSURE:	N/A	NON-PRESS.:	A-234-WPB
PIPE	PRESSURE:	N/A	NON-PRESS.:	A-53 GR. B
GASKETS	FAB'D FLG.:	NEOPRENE	NOZZLE:	N/A
BOLTING	EXT:	GR. 5 PLATED	INT:	N/A
STRUCTURAL	EXT:	G40.21-44W	INT:	G40.21-44W
STRUCTURAL BOLTING	EXT:	GR. 5 PLATED	INT:	N/A
NAMEPLATE				ALUMINUM
OTHER				N/A

FINISHING

EXTERIOR

SHELL, ROOF, FITTINGS & APPURTENANCES TO RECEIVE:

- (1) COAT OF BLACK ELASTOMERIC SEALER

TANK UNDERSIDE TO RECEIVE:

- NIL

INTERIOR COATING

SHELL, ROOF & FLOOR TO RECEIVE:

- NIL

GENERAL NOTES

1. TANK FABRICATED IN VERMILION, AB.
2. THESE DRAWINGS HAVE BEEN REVIEWED FOR COMPLIANCE WITH GOOD INDUSTRY PRACTICES REFERENCING API-650 AND THE APPLICABLE CONTRACT. PROCESS CONSIDERATIONS REMAIN THE RESPONSIBILITY OF THE USER'S DESIGNATED AGENT.
3. OPEN CONNECTIONS SHALL BE BLANKED WITH TEMPORARY SHIPPING COVERS; IT IS THE RESPONSIBILITY OF THE OWNER/INSTALLER TO ENSURE TANK IS PROPERLY PREPARED FOR SERVICE. PIPING AND ACCESSORIES REQUIRED TO BE REMOVED FOR TRANSIT SHALL BE RE-INSTALLED BY OTHERS AT FINAL LOCATION.
4. STATED CAPACITIES OR VOLUMES ARE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO VERIFY THE EXACT VOLUME.

DESIGN NOTES

1. THIS TANK HAS NOT BEEN DESIGNED FOR SIMULTANEOUS INTERNAL DESIGN PRESSURE AND WIND OVERTURNING.
2. NORMAL AND EMERGENCY VENTING IN ACCORDANCE WITH API-2000 HAS NOT BEEN REQUESTED AND IS NOT PROVIDED.
3. LADDERS ARE IN ACCORDANCE WITH INDUSTRY STANDARDS. THEY DO NOT MEET THE CURRENT ALBERTA OH&S SPECIFICATIONS (PIP STF05501 DETAILS).
4. ROOF TO SHELL JOINT IS NOT BACK-WELDED.
5. LIFTING LUGS ARE FOR LIFTING EMPTY TANK ONLY.
6. PVC FLOAT IS RATED FOR A MAXIMUM TEMPERATURE OF 140°F [60°C], OPERATING ABOVE THIS TEMPERATURE MAY CAUSE PERMANENT DAMAGE.

MATERIAL NOTES

1. MTR FILES HAVE NOT BEEN REQUESTED AND WILL NOT BE PROVIDED.
2. THIEF HATCH AND MANWAY ARE FABRICATED AND CONSEQUENTLY NOT RATED AT CLASS 150.

FABRICATION NOTES

1. APPROVED LMG INSPECTION AND TEST PLAN HAVE NOT BEEN REQUESTED.
2. APPROVED LMG WELD PROCEDURES HAVE NOT BEEN REQUESTED.
3. WELDING AND WELD PROCEDURES ARE IN ACCORDANCE WITH ASME SECTION IX.
4. ALL SHELL NOZZLES TO STRADDLE VERTICAL CENTERLINES UNLESS OTHERWISE SHOWN ON GENERAL ARRANGEMENT.
5. ALL ROOF NOZZLES TO STRADDLE TANK RADIAL CENTERLINES UNLESS OTHERWISE SHOWN ON GENERAL ARRANGEMENT.
6. SHOP TRIAL FIT ALL CONNECTIONS AND APPURTENANCES PRIOR TO PAINTING.
7. ENGRAVE TANK SERIAL NUMBER ON NAMEPLATE AS FOLLOW: 19-016-1, 19-016-2, 19-016-3 & 19-016-4.

FINISHING NOTES

N/A

TESTING / QC

1. TANK SHALL RECEIVE AIR TEST TO 27.69 in. H2O [6.89 kPag] AND INSPECTED WITH SOAP SOLUTION.
2. TANK BOTTOM SHALL RECEIVE VACUUM TEST TO 3.0 PSIG [20.6 kPag].
3. DATA BOOK HAS NOT BEEN REQUESTED. FINAL RECORD DRAWINGS WILL BE SUBMITTED.

SHT. No.	DRAWING TITLE	REV. No.	RELEASE DATE	REV. RELEASE DATE
01	TANK DATA SHEET	0	01-APR-19	-
02	GENERAL ARRANGEMENT	0	01-APR-19	-
03	MISC. DETAILS	0	01-APR-19	-
04	(LI) LEVEL INDICATOR DETAIL	0	01-APR-19	-
50	MAIN STEEL ASSEMBLY DETAIL	0	01-APR-19	-

* SEE FAB. NOTE 7

API N/A ED. ☐ ADD. ☐ APP. ☐ MOD. ☐

SERIAL No.	*	OWNER TAG No.	N/A
YEAR	2019	P.W.H.T.	N/A
NOM. DIA.	5'-0"	NOM. HT.	6'-0"
MAX. CAP.	28 BBL	DES. LIQ. LVL.	6'-0"
MDMT	11°F	MAX. DES. TEMP.	11°F
DES. PRESS.	16oz	DES. S.G.	1.0

	THICKNESS	MATERIAL
ROOF	3/16"	A-36
BOTTOM	3/16"	A-36
SHELL	3/16"	A-36

LEADING MANUFACTURING GROUP INC.

NAMEPLATE ENGRAVING DETAIL
(ENGRAVING TO BE 5/32" MIN.)

REV. No.	REVISION DATE	REVISION DESCRIPTION	BY	CHK'D	APP'D
0	01-APR-19	ISSUED FOR CONSTRUCTION	SC	-	-

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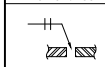
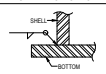
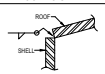
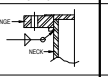
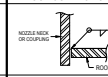
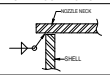
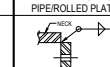
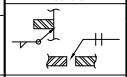
ITP & PROJ. MGR. # MIKE PHILLIPS
PURCHASE ORDER # TO FOLLOW
TOLERANCES: LMG GOOD INDUSTRY PRACTICES

DESCRIPTION:
TANK DATA SHEET
CANADIAN NATURAL RESOURCES LTD.
5'-0" [1524] C.L. DIA. x 6'-0" [1829] HIGH
28 BBL [4.5 cu.M.] (NOM.) POP TANKS
FINAL LOCATION: SEABERT, AB

DRAWN BY & DATE:	S. CHAN 01-APR-19	CHECKED BY & DATE:	Y. LAM 16-APR-19	APPROVED FOR CONSTRUCTION BY & DATE:	Y. LAM 16-APR-19
SCALE: N.T.S.		DRAWING NUMBER:	19-016-1 to 4-01		REV. 0

WELD DETAILS

BOTTOM / ROOF	SHELL (VERT.)	SHELL TO BOTTOM	ROOF TO SHELL	FLANGE TO PIPE	ROOF CONNECTION	SHELL CONNECTION	PIPE/FITTING TO PIPE/FITTING	FAB'D FLANGE TO PIPE/ROLLED PLATE	MISC. C.S.
							 NON-PRESSURE		
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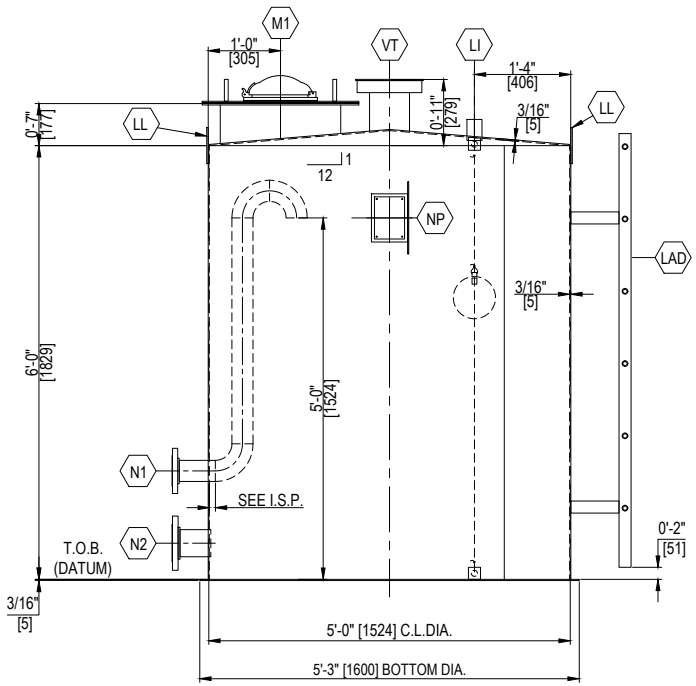
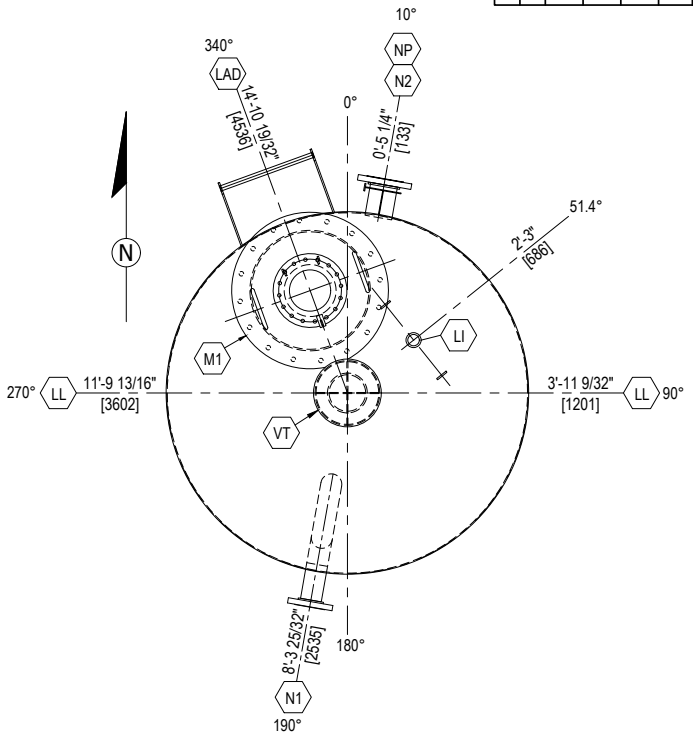
NOZZLE SCHEDULE

MK#	QTY.	SIZE	CLASS	TYPE	SCH.	O.S.P.	I.S.P.	PAD	BRK. FLG.	SERVICE / DESCRIPTION	ATTACHMENTS	ELEVATION (FROM DATUM)	SHT. or STD ASS'Y No.
N1	1	3"	150	RFSO	STD	6" [152]	1" [25]	N	-	NOZZLE	INTERNAL NON-REMOVABLE RISER w/ 180° RETURN	1'-6" [457]	03
N2	1	4"	150	RFSO	STD	6" [152]	1/4" [6]	N	-	NOZZLE	-	0'-6" [152]	03
VT	1	6"	FAB'D	FAB'D	FAB'D	SEE ELEV.	FLUSH	N	-	VENT	EXTERNAL NON-REMOVABLE CAP	CTR OF ROOF	03
LI	1	1 1/2"	3000	FULL NPT	-	-	1/4" [6]	N	-	LEVEL	LEVEL INDICATOR ASS'Y c/w LIN. M. BOARD, PVC FLOAT, S.S. GUIDE WIRES, INTERNAL ROOF & FLOOR CLIPS & MISC. HARDWARE	ROOF	04
M1	1	20"	FAB'D	FAB'D	1/4" WALL	SEE ELEV.	1/4" [6]	-	-	ROOF MANWAY	(1) PIECE COVER w/ LMG STD THIEF HATCH (SET @ 4.0 oz. P./0.4 oz. VAC.)	ROOF	03
NP	1	-	-	-	-	-	-	-	-	LMG NAMEPLATE BRACKET	LMG ALUMINUM NAMEPLATE	4'-6"	NPB NP
LL	2	-	-	-	-	-	-	-	-	LMG JUNIOR LIFTING LUGS	-	SEE ELEV.	JLL
LAD	1	-	-	-	-	-	-	-	-	INDUSTRY STD NON-REMOVABLE LADDER	-	SEE ELEV.	03



ELEVATION VIEW



PLAN VIEW

BOTTOM SHELL COURSE O.D.: 5'-0 3/16" [1529]

BOTTOM SHELL COURSE CIRCUMFERENCE: 15'-9 3/32" [4803]

GENERAL NOTES:

1. ALL UNITS ARE IN IMPERIAL w/ METRIC IN BRACKETS.
2. BEVELS TO BE +/- 10°
3. LANDS AND GAPS TO BE +/- 1/16" [2].
4. ALL ARC LENGTHS ON PLAN VIEW ARE MEASURED CLOCKWISE FROM 0° CENTERLINE ON OUTSIDE DIAMETER OF BOTTOM SHELL COURSE.
5. NOZZLE ELEVATIONS ARE MEASURED FROM "DATUM" SHOWN ON ELEVATION VIEW TO CENTERLINE OF NOZZLES UNLESS OTHERWISE NOTED.
6. ITEMS SHOWN ON SHELL ELEVATION VIEW ARE FOR REPRESENTATION ONLY. REFER TO NOZZLE SCHEDULE AND PLAN VIEW ON DRAWING -02a FOR TRUE LOCATIONS UNLESS OTHERWISE NOTED.

REV. No.	REVISION DATE	REVISION DESCRIPTION	BY	CHK'D	APP'D
0	01-APR-19	ISSUED FOR CONSTRUCTION	SC	-	-

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LMG

ITP & PROJ. MGR. # MIKE PHILLIPS

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APPROVED FOR CONSTRUCTION BY & DATE: Y. LAM 16-APR-19

SCALE: N.T.S.

DRAWING NUMBER: 19-016-1 to 4-02

REV. 0