SHELL SIDE 1

1375 PSI

649 °F

Pressure Equipment Inspection Report

bp	BP CANADA ENERGY COMPANY	
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PRESSURE VESSEL DATA: COMPANY: BP CANADA ENERGY COMPANY LOCATION BP CHINCHAGA GAS PLANT FACILITY: LSD: 01-24-096-05W6M VESSEL NAME: DESICCANT TOWER A (N|S) **FACILITY VESSEL IDENTIFICATION:** MAINTENANCE NO. (Maximo): IS VESSEL ASSOCIATED WITH A COMPRESSOR? Yes No ORIENTATION: Horizontal Vertical Sphere 2 Phase 3 Phase SEPARATOR TYPE (if applicable): STATUS: In Service DIRECT FIRED VESSEL: Yes No MANWAY: THERMAL INSULATION: Internal Access Through: NAME PLATE: A0146908 **JURISDICTION NUMBER:** D3193.2 **CRN NUMBER:** V-301A **BP TAG NUMBER:** N. BOARD NUMBER: **VESSEL SERIAL NUMBER:** 79-087-05A NS **CAPACITY (Volume):** DRAWING NUMBER: NS **CHANNEL MATERIAL:** NS N/A NS N/A **CHANNEL THICKNESS: HEAT TREATMENT:** CODE PARAMETERS: U, UW, UM NS **JOINT EFFICIENCY (J.E.):** KML CUSTOM FABRICATORS MANUFACTURER: YEAR BUILT: 1979 INSULATION / COATING INTERNAL COATING **EXTERNAL COATING INSULATION** DESCRIPTION COATED? THK **TYPE** DATE COATED? THK **TYPE** DATE INSULATED? **DENSITY** Ν Ν SHELL STATIC H.T. NOMINAL DIAMETER LENGTH C.A. RT LEVEL SHELL **MATERIAL** SHELL SIDE 1 SA-51670 Υ in / mm in / mm in / mm 0.0620 in. **HEAD STATIC** HΕΔD NOMINAL RT LEVEL MATERIAL H.T. DIAMETER C.A. SHELL SIDE 1 SA-106B, SA-516-70, SA-53B, SA-516-70N, Υ in / mm in / mm 0.0620 in. SA-515-70, Other **DESIGN / OPERATING DESIGN DESCRIPTION DESIGN PRESS.** DESIGN TEMP. OPERATING PRESS. OPERATING TEMP. SERVICE

PSI / KPa

°F/°C



PSV NAME PLATE DATA:

	PSV. 1	PSV. 2	PSV. 3	PSV. 4
Tag Number:	3500			
Serial Number:	79C4011			
Inlet Size - (Rating/Type):				
Outlet Size - (Rating/Type):				
Capacity (SCFM) Or	13443 SCFM			
Model Number:	1914GT			
Manufacturer:	CONSOLIDATED			
Set Pressure:	1375 PSI			
Set Date:				
Location:				
CRN:				
Service Interval:				
Service Company:				

POTENTIAL DAMAGE TYPE AND LOCATION:

Fabrication Defects: Thinning (includes general, localized and pitting): Shell, heads and nozzles. High Stress Areas: Subject to cracking, water composition around nozzles, tee joints, attachment and closing welds. Demister Pad: Possible plugging and deterioration. Cracking, Subsurface cracking, Dimensional changes (blistering), Blistering (dimensional changes).

POTENTIAL DAMAGE MECHANISMS:

Fabrication Defects: Nothing Unusual Expected

Corrosion: Crevice/under deposit, pH.

Hydrogen Effects: N/A

Mechanical Effects: None Anticipated

Metallurgical & environmental Effects: None Anticipated

PREVIOUS INSPECTION REPORTS:

PSV DATA REQUIRED. THE EXTERNAL SURFACE OF THE VESSEL IS PAINTED. NO EVIDENCE OF EXTERNAL CORROSION WAS NOTED.. THE NOZZLES ARE INTACT WITH NO EVIDENCE OF DEGRADATION AND THEREFORE NOTED IN GOOD CONDITION. FLANGES ARE BOLTED PROPERLY AND THERE IS NO EVIDENCE OF LEAKAGE. THE WELDS ARE INTACT AND EVIDENT WITH NO VISUAL DEFECTS OR DEGREDATION. THE PIPING IS INTACT. ALL THE SUPPORTS ARE IN PLACE, SECURE AND FUNCTIONING PROPERLY. THE VESSEL IS PROPERLY SECURED TO THE FOUNDATION. THE GROUND IS IN PLACE AND SECURE. THE PRESSURE AND TEMPERATURE INDICATORS ARE INTACT, LEGIBLE AND OF PROPER RANGE. THE INSTRUMENTATION WAS NOTED IN GOOD CONDITION. THE LADDER AND PLATFORM ARE IN PLACE, SECURE AND PROPERLY ATTACHED. THE SKIRT AND BASE PLATE ASSEMBLIES WERE NOTED IN GOOD CONDITION, NO EVIDENCE OF DEGRADATION OR CORROSION NOTED. THE ASSOCIATED ANCHOR BOLTS APPEAR TO BE IN GOOD CONDITION AT THE TIME OF THIS INSPECTION. THE VESSEL SUPPORTS WERE NOTED IN GOOD CONDITION, NO EVIDENCE OF MECHANICAL DISTORTION, CORROSION OR OTHER FORMS OF DEGRADATION. THE ASSOCIATED ANCHOR BOLTS APPEAR TO BE IN GOOD CONDITION AT THE TIME OF THIS INSPECTION.

INSPECTION METHODS:

UT: Pre-turnaround survey of all TML's identified on the UT drawings. Also thickness readings in areas of corrosion. MPI: As required. VISUAL: Total tower and associated piping. Perform a video inspection on the lower head, shell area and as required. DIMENSIONAL MEASUREMENTS: If blistering, buckling or deformation found.

UltraPIPE Group: GP-CHP Page 2 of 3 UltraPIPE Equipment ID: A0146908



INSPECTION NOTES:

2005:

INTERNAL:

THE INTERNAL SURFACE WAS NOT EVALUATED DURING THE VISUAL INSPECTION.

PSV:

THE SEALS ON THE PSV ARE INTACT.

THE DISCHARGE PIPING IS PROPERLY VENTED TO THE FLARE.

EXTERNAL:

SHELL CONDITION:

THE EXTERNAL SURFACE OF THIS TOWER IS IN GOOD MECHANICAL CONDITION WITH NO EVIDENCE OF CORROSION.

THE COATING IS IN GOOD CONDITION WITH NO EVIDENCE OF FAILURE.

THE COATING IS CHIPPED AND SCRATCHED.

INSTRUMENTATION CONDITION:

THE ASSOCIATED INSTRUMENTATION IS IN GOOD WORKING ORDER.

NOZZLE CONDITION:

THE NOZZLES ARE IN GOOD MECHANICAL CONDITION WITH NO MEASURABLE CORROSION ON THE EXTERNAL SURFACES.

THE WEEP HOLES ARE CLEAN AND CLEAR OF PRODUCT AND RUST.

THE RE-PADS AND NOZZLE WELDS ARE IN GOOD CONDITION.

THE RE-PADS AND NOZZLE COATING IS CHIPPED AND SCRATCHED.

FLANGE CONDITION:

ALL ASSOCIATED FLANGES AND BOLTING ARE INTACT AND SHOW NO EVIDENCE OF MECHANICAL DAMAGE, DETERIORATION, VISIBLE CRACKING, PROCESS LEAKS OR CORROSION.

THE FLANGES AND NPT CONNECTIONS ARE IN GOOD MECHANICAL CONDITION WITH NO EVIDENCE OF MEASURABLE CORROSION.

THE FLANGE RATING IS 900#.

PIPING CONDITION:

THE PIPING IS THREADED AND BOLTED.

THE PIPING IS IN GOOD MECHANICAL CONDITION WITH NO MEASURABLE CORROSION.

PIPE SUPPORT CONDITION:

THE ASSOCIATED PIPE SUPPORTS ARE IN GOOD MECHANICAL CONDITION WITH NO EVIDENCE OF ANY MECHANICAL DAMAGE OR DEGRADATION.

BOLTED PIPE FLANGE CONNECTIONS:

THE ASSOCIATED PIPING FLANGE BOLTING AND GASKETS ARE IN PLACE AND TIGHT.

THE BOLTS ARE THE CORRECT LENGTH AND DIAMETER.

THREADED PIPE CONNECTIONS:

THE ASSOCIATED THREADED PIPING IS IN PLACE AND TIGHT.

FOUNDATION CONDITION:

THE TOWER SKIRT, BASEPLATE AND ANCHOR BOLTS ARE IN GOOD CONDITION WITH NO EVIDENCE OF MECHANICAL DETERIORATION.

THE TOWER SKIRT IS ANCHORED TO THE CEMENT.

THE CONCRETE IS IN GOOD CONDITION.

THE GROUND WIRE IS ATTACHED TO THE VESSEL.

THERE IS SKIRT ACCESS.

RECOMMENDED INSPECTION INTERVALS:

Next UT Creep Wave:		Years:		
Next UT Corrosion Survey:		Years:		
Next Internal Inspection:		Years:		
Next External Inspection:	06/15/2005	Years:	0 YEARS	
Next PSV Service:	PSV ID:	Bench T	Bench Test Due:	
	SN 79C4011	12/03/20	07	