

# Application story

**WANNER**  
HYDRA-CELL® PRO  
SEAL-LESS PUMP TECHNOLOGIES



vedanta  
transforming elements

CAIRN

Date – 23<sup>rd</sup> September 2019

To Whomsoever It May Concern

M/s Wanner International Limited has supplied total of around 03 Nos. Mono ethylene glycol injection pumps (Wanner Hydra-cell pumps, Model – P200 ) in the year 2014 and 2017 for the glycol injection pump application required for gas sweetening in the Gas Drying unit installed at Rageshwari terminal in Rajasthan.

We hereby confirm that the Mono Glycol injection pumps supplied by M/s Wanner International Limited are working satisfactorily complying to their design specifications for more than 8000 hours.

Yours Faithfully

Prem Sunder B.  
Field Manager Maintenance  
Rageshwari Gas Terminal  
Cairn Oil & Gas  
Vedanta Limited

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## Gas Drying

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|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------|
| <b>Location</b>                                          | India (Installations: 2014 & 2017)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Hydra-Cell model</b> | P200NSGSSB05S                     |
| <b>Type of application</b>                               | Gas Drying                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Flow rate</b>        | 40 - 70 L/hr (10.5 - 18.5 Gal/hr) |
| <b>Liquid</b>                                            | Tri-Ethylene Glycol (TEG)<br>Mono-Ethylene Glycol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Pressure</b>         | 55 Bar (800 psi)                  |
| <b>Application details</b>                               | <p><b>Hydra-Cell® Pumps Ethylene Glycols</b></p> <p>Cairn India's Rageshwari Gas Terminal treats gas from other Cairn sites and is the only plant in Rajasthan that solely processes gas.</p> <p>The natural gas contains impurities, which are removed in primary and secondary clarifiers, and moisture, which is removed by processing with glycol injection. The glycols are introduced at high pressure to overcome the natural gas pressure.</p> <p>An accurate controllable, low pulsing flow is essential as too much glycol will absorb more methane which cannot be reintroduced into the gas stream and too little will not dry the gas adequately.</p> <p>Hydra-Cell P200 metering pump was selected in preference to a locally manufactured single diaphragm pump because it gives a virtually pulse-less flow and is more efficient, consuming only 0.35kW per hour.</p> <p>The recirculating glycol can also contain impurities and particles which, of course, pose no problem for Hydra-cell pumps.</p> |                         |                                   |
| <b>Advantages of Hydra-Cell pump on this application</b> | <p>Hydra-Cell was chosen for this application for the following reasons:</p> <ul style="list-style-type: none"> <li>- Ability to offer a virtually pulse-less flow, without the need for pulsation dampeners.</li> <li>- Ability to handle this particle laden liquid with ease.</li> <li>- Known reliability.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                                   |

[www.hydra-cell.co.uk](http://www.hydra-cell.co.uk)

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