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|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------|-----------|---------|------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <br><b>NISOC</b> | <b>نگهداشت و افزایش تولید میدان نفتی بینک</b><br><b>سطح الارض</b><br><b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b> |           |           |         |      |          | <br> |      |
|                                                                                                  | MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM                                                                               |           |           |         |      |          |                                                                                                                                                                           |      |
| شماره پیمان:                                                                                     | پروژه                                                                                                                     | بسته کاری | صادرکننده | تسهیلات | رشته | نوع مدرک | سریال                                                                                                                                                                     | نسخه |
| ۰۵۳ - ۰۷۳ - ۹۱۸۴                                                                                 | BK                                                                                                                        | GCS       | PEDCO     | 120     | ME   | DT       | 0036                                                                                                                                                                      | D01  |
| شماره صفحه: ۱ از ۸                                                                               |                                                                                                                           |           |           |         |      |          |                                                                                                                                                                           |      |

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM

#### نگهداشت و افزایش تولید میدان نفتی بینک

| D01  | SEP.2022 | IFA                       | H.Adineh     | M.Fakharian | M.Mehrshad   |                 |
|------|----------|---------------------------|--------------|-------------|--------------|-----------------|
| D00  | DEC.2021 | IFC                       | H.Adineh     | M.Fakharian | M.Mehrshad   |                 |
| Rev. | Date     | Purpose of Issue / Status | Prepared by: | Checked by: | Approved by: | CLIENT Approval |

Class: 2      CLIENT Doc. Number: F0Z-709383

- status:**
- IDC:** Inter-Discipline Check
  - IFC:** Issued For Comment
  - IFA:** Issued For Approval
  - AFD:** Approved For Design
  - AFC:** Approved For Construction
  - AFP:** Approved For Purchase
  - AFQ:** Approved For Quotation
  - IFI:** Issued For Information
  - AB-R:** As-Built for CLIENT Review
  - AB-A:** As-Built –Approved

|                                                                                                  |                                                                   |                  |                    |                |            |                |               |                                                                                    |                    |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------|--------------------|----------------|------------|----------------|---------------|------------------------------------------------------------------------------------|--------------------|
| <br><b>NISOC</b> | <b>نگهداشت و افزایش تولید میدان نفتی بینک</b><br><b>سطح الارض</b> |                  |                    |                |            |                |               |  |                    |
|                                                                                                  | <b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>              |                  |                    |                |            |                |               |                                                                                    |                    |
|                                                                                                  | <b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b>                |                  |                    |                |            |                |               |                                                                                    |                    |
| شماره پیمان:<br>۰۵۳ - ۰۷۳ - ۹۱۸۴                                                                 | پروژه<br>BK                                                       | بسته کاری<br>GCS | صادرکننده<br>PEDCO | تسهیلات<br>120 | رشته<br>ME | نوع مدرک<br>DT | سریال<br>0036 | نسخه<br>D01                                                                        | شماره صفحه: ۲ از ۸ |

### REVISION RECORD SHEET

| Page | D00 | D01 | D02 | D03 | D04 | Page | D00 | D01 | D02 | D03 | D04 |
|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| 1    | X   | X   |     |     |     | 65   |     |     |     |     |     |
| 2    | X   | X   |     |     |     | 66   |     |     |     |     |     |
| 3    | X   | X   |     |     |     | 67   |     |     |     |     |     |
| 4    | X   |     |     |     |     | 68   |     |     |     |     |     |
| 5    | X   | X   |     |     |     | 69   |     |     |     |     |     |
| 6    | X   | X   |     |     |     | 70   |     |     |     |     |     |
| 7    | X   | X   |     |     |     | 71   |     |     |     |     |     |
| 8    | X   | X   |     |     |     | 72   |     |     |     |     |     |
| 9    |     |     |     |     |     | 73   |     |     |     |     |     |
| 10   |     |     |     |     |     | 74   |     |     |     |     |     |
| 11   |     |     |     |     |     | 75   |     |     |     |     |     |
| 12   |     |     |     |     |     | 76   |     |     |     |     |     |
| 13   |     |     |     |     |     | 77   |     |     |     |     |     |
| 14   |     |     |     |     |     | 78   |     |     |     |     |     |
| 15   |     |     |     |     |     | 79   |     |     |     |     |     |
| 16   |     |     |     |     |     | 80   |     |     |     |     |     |
| 17   |     |     |     |     |     | 81   |     |     |     |     |     |
| 18   |     |     |     |     |     | 82   |     |     |     |     |     |
| 19   |     |     |     |     |     | 83   |     |     |     |     |     |
| 20   |     |     |     |     |     | 84   |     |     |     |     |     |
| 21   |     |     |     |     |     | 85   |     |     |     |     |     |
| 22   |     |     |     |     |     | 86   |     |     |     |     |     |
| 23   |     |     |     |     |     | 87   |     |     |     |     |     |
| 24   |     |     |     |     |     | 88   |     |     |     |     |     |
| 25   |     |     |     |     |     | 89   |     |     |     |     |     |
| 26   |     |     |     |     |     | 90   |     |     |     |     |     |
| 27   |     |     |     |     |     | 91   |     |     |     |     |     |
| 28   |     |     |     |     |     | 92   |     |     |     |     |     |
| 29   |     |     |     |     |     | 93   |     |     |     |     |     |
| 30   |     |     |     |     |     | 94   |     |     |     |     |     |
| 31   |     |     |     |     |     | 95   |     |     |     |     |     |
| 32   |     |     |     |     |     | 96   |     |     |     |     |     |
| 33   |     |     |     |     |     | 97   |     |     |     |     |     |
| 34   |     |     |     |     |     | 98   |     |     |     |     |     |
| 35   |     |     |     |     |     | 99   |     |     |     |     |     |
| 36   |     |     |     |     |     | 100  |     |     |     |     |     |
| 37   |     |     |     |     |     | 101  |     |     |     |     |     |
| 38   |     |     |     |     |     | 102  |     |     |     |     |     |
| 39   |     |     |     |     |     | 103  |     |     |     |     |     |
| 40   |     |     |     |     |     | 104  |     |     |     |     |     |
| 41   |     |     |     |     |     | 105  |     |     |     |     |     |
| 42   |     |     |     |     |     | 106  |     |     |     |     |     |
| 43   |     |     |     |     |     | 107  |     |     |     |     |     |
| 44   |     |     |     |     |     | 108  |     |     |     |     |     |
| 45   |     |     |     |     |     | 109  |     |     |     |     |     |
| 46   |     |     |     |     |     | 110  |     |     |     |     |     |
| 47   |     |     |     |     |     | 111  |     |     |     |     |     |
| 48   |     |     |     |     |     | 112  |     |     |     |     |     |
| 49   |     |     |     |     |     | 113  |     |     |     |     |     |
| 50   |     |     |     |     |     | 114  |     |     |     |     |     |
| 51   |     |     |     |     |     | 115  |     |     |     |     |     |
| 52   |     |     |     |     |     | 116  |     |     |     |     |     |
| 53   |     |     |     |     |     | 117  |     |     |     |     |     |
| 54   |     |     |     |     |     | 118  |     |     |     |     |     |
| 55   |     |     |     |     |     | 119  |     |     |     |     |     |
| 56   |     |     |     |     |     | 120  |     |     |     |     |     |
| 57   |     |     |     |     |     | 121  |     |     |     |     |     |
| 58   |     |     |     |     |     | 122  |     |     |     |     |     |
| 59   |     |     |     |     |     | 123  |     |     |     |     |     |
| 60   |     |     |     |     |     | 124  |     |     |     |     |     |
| 61   |     |     |     |     |     | 125  |     |     |     |     |     |
| 62   |     |     |     |     |     | 126  |     |     |     |     |     |
| 63   |     |     |     |     |     | 127  |     |     |     |     |     |
| 64   |     |     |     |     |     | 128  |     |     |     |     |     |

|                                                                                                  |                                                                   |           |            |         |      |          |       |                                                                                    |                    |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------|------------|---------|------|----------|-------|------------------------------------------------------------------------------------|--------------------|
| <br><b>NISOC</b> | <b>نگهداشت و افزایش تولید میدان نفتی بینک</b><br><b>سطح الارض</b> |           |            |         |      |          |       |  |                    |
|                                                                                                  | <b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>              |           |            |         |      |          |       |                                                                                    |                    |
|                                                                                                  | <b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b>                |           |            |         |      |          |       |                                                                                    |                    |
| شماره پیمان:                                                                                     | پروژه                                                             | بسته کاری | صادر کننده | تسهیلات | رشته | نوع مدرک | سریال | نسخه                                                                               | شماره صفحه: ۸ از ۳ |
| ۰۵۳ - ۰۷۳ - ۹۱۸۴                                                                                 | BK                                                                | GCS       | PEDCO      | 120     | ME   | DT       | 0036  | D01                                                                                |                    |

| Rev | General Notes <span style="float: right;">D01</span>                                                                                                                                                                                                                                                                                                       |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| D01 | 1. The Asterisk * denotes information and/or confirmation required from VENDOR. The Vendor shall be fully responsible for the complete mechanical design and supply of the vessel.                                                                                                                                                                         |  |
|     | 2. Nozzles and flanges shall be suitably supported and reinforced based on nozzle loads provided in project Specification for Pressure Vessels, Document No. BK-GNRL-PEDCO-000-ME-SP-0001.                                                                                                                                                                 |  |
|     | 3. VENDOR shall include for the services of a independent verification body for mechanical design, stage inspection, testing and stamping of the equipment (if possible).                                                                                                                                                                                  |  |
| D01 | 4. Access Ladder & Platform to be considered .                                                                                                                                                                                                                                                                                                             |  |
|     | 5. Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRL-PEDCO-000-PI-SP-0006 and Specification for Lining (Internal Protection of Equipment by painting), Doc. No. BK-GNRL-PEDCO-000-PI-SP-0007.                                                                                              |  |
| D01 | 6. Flanges shall comply with ANSI B16.5. Series A. Nozzle bolt holes shall straddle the natural centerlines. VENDOR to confirm maximum allowable nozzle loads and moments. RF: Raised Face, WN: Welding Neck                                                                                                                                               |  |
|     | 7. For equipment requiring PWHT, final inspection and acceptance by the CLIENT or its nominated representative shall only be undertaken against NDE after PWHT. All weldings shall be made before vessel heat treatment (if any).                                                                                                                          |  |
|     | 8. Manways shall be supplied complete with blind flange, external grab handles, internal grab handle and ladder rungs, nuts, bolting, gasket and proof load test davits. Davits shall be proof load tested on the vessels to 1.5 x Safe Working Load (SWL) and shall be marked accordingly.                                                                |  |
|     | 9. Loads at support base, Shall be calculated and determined by vendor.                                                                                                                                                                                                                                                                                    |  |
| D01 | 10. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing.                                                                                                                                                                                                                                                                   |  |
|     | 11. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.                                                                                                                                                                                                                                             |  |
|     | 12. All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor.                                                                                                                                                                                                            |  |
| D01 | 13. The vendor shall be responsible for mechanical strength of the equipment based on mentioned condition in data sheets.                                                                                                                                                                                                                                  |  |
| D01 | 14. All nozzle locations and orientations will be finalized later.                                                                                                                                                                                                                                                                                         |  |
|     | 15. Instrumentation items are excluded from vendor's scope of supply.                                                                                                                                                                                                                                                                                      |  |
|     | 16. Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client.                                                                                                                                                                                                                                           |  |
|     | 17. Structural surfaces of stainless steel internals shall be pickled & passivated.                                                                                                                                                                                                                                                                        |  |
| D01 | 18. All dimensions shown are in mm unless otherwise indicated. All nozzle sizes are in inch.                                                                                                                                                                                                                                                               |  |
|     | 19. All materials shall be new and unused.                                                                                                                                                                                                                                                                                                                 |  |
|     | 20. Prior to sealing the vessel for shipping and storage, the inside surface of the equipment shall be 100% visually inspected. Internal surfaces shall be clean and thoroughly dried. The CLIENT or its nominated representative shall witness the cleanliness of internal suarfaces. Flange faces shall be protected by wooden or plastic dummy flanges. |  |
|     | 21. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code.                                                                                                                                                                                                                                                                |  |
|     | 22. All items shall be clearly match marked against vessel drawings to facilitate erection.                                                                                                                                                                                                                                                                |  |
|     | 23. The elevation of equipment's nozzels should be specified as follows :<br>I. For vertical vessels : from bottom T.L.<br>II. For horizontal vessels : from Left T.L.                                                                                                                                                                                     |  |
|     | 24. Vendor shall supply details of all welding connections and give general specification of used materials.                                                                                                                                                                                                                                               |  |
|     | 25. Specified accessories and attachments shall be supplied by vendor.                                                                                                                                                                                                                                                                                     |  |
|     | 26. Gasket shall be spiral wound type, graphite filled with inner ring S.S.316 and outer ring S.S.                                                                                                                                                                                                                                                         |  |
| D01 | 27. Deleted.                                                                                                                                                                                                                                                                                                                                               |  |
| D01 | 28. Deleted.                                                                                                                                                                                                                                                                                                                                               |  |
| D01 | 29. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Transportation Procedure Doc. No. "BK-GNRL-PEDCO-000-QC-PR-0045".                                                                                                                                        |  |

|                                                                                                  |                                                                                                                                                                                 |       |           |            |         |      |          |       |                                                                                    |                    |
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| <br><b>NISOC</b> | <b>نگهداشت و افزایش تولید میدان نفتی بینک</b><br><b>سطح الارض</b><br><b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b><br><b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b> |       |           |            |         |      |          |       |  |                    |
|                                                                                                  | شماره پیمان:                                                                                                                                                                    | پروژه | بسته کاری | صادر کننده | تسهیلات | رشته | نوع مدرک | سریال | نسخه                                                                               | شماره صفحه: ۴ از ۸ |
|                                                                                                  | ۰۵۳ - ۰۷۳ - ۹۱۸۴                                                                                                                                                                | BK    | GCS       | PEDCO      | 120     | ME   | DT       | 0036  | D01                                                                                |                    |

| General Notes (Cont'd) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rev                    | D01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                        | <p>30. For standard detail of Earth lug execution refer to the Project "Standard Detail Drawing For Pressure Vessels and Heat Exchangers Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".</p> <p>31. Elliptical heads shall be Ultrasonic Tested for lamination after forming.</p> <p>32. The projection of equipment's nozzles should be considered as per 'Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001". Projection of Horizontal &amp; Vertical nozzles is from tangent line and centerline respectively.</p> <p>D01 33. Deleted</p> <p>34. All reinforcement pads shall have 1/4" (6mm) tell-tale hole and 1/8" (3mm) vent hole as per Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".</p> <p>D01 35. Minimum requirement for pre-commissioning, commissioning, start up and two years operation spare parts shall be in accordance with document E&amp;C-QC-SP-1.</p> <p>36. Nozzle loads shall be in accordance with Specification for Pressure Vessels, Doc. No. BK-GNRAL-PEDCO-ME-SP-0001.</p> <p>37. All nozzles must be vertical or horizontal and not perpendicular or parallel to vessel center line.</p> <p>D01 38. Lifting Lugs / trunnions shall be provided to facilitate a single point lift. If a single point lift cannot be achieved without the use of a lifting beam, then VENDOR shall provide a suitable, certified, lifting beam.</p> <p>D01 39. Design pressure specified is at top of vessels. VENDOR design shall include static head for vessels flooded with specific gravity of the handled liquid.</p> <p>D01 40. VENDOR is to maximize shop fabrication based on the following transportation limits:</p> <ul style="list-style-type: none"> <li>- Maximum weight: 96 tonnes</li> <li>- Maximum load per axle: 12 tonnes</li> <li>- Maximum length: 50.0 m</li> <li>- Maximum width: 5.0 m</li> <li>- Maximum height: 5.2 m</li> </ul> <p>For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components.</p> <p>D01 41. All external attachments directly welded to the pressure part shall be the same material as vessel grade.</p> |



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

۰۵۳ - ۰۲۳ - ۹۱۸۴

پروژه

بسته کاری

صادر کننده

تسهیلات

رشته

نوع مدرک

سریال

نسخه

شماره صفحه: ۵ از ۸

BK

GCS

PEDCO

120

ME

DT

0036

D01

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 1 of 4

## DATA SHEET

| Rev | DATA SHEET |                                                         |                                                                                                |                                                                     |                                 |                                   | Rev |
|-----|------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------|-----------------------------------|-----|
|     | 1          | Description : Glycol Sump Drum                          |                                                                                                |                                                                     |                                 |                                   |     |
|     | 2          | Tag No. : V-2107                                        |                                                                                                | Quantity : 1                                                        |                                 | Set                               |     |
|     | 3          | Type : Pressure Vessel                                  |                                                                                                |                                                                     |                                 |                                   |     |
|     | 4          | Process Design Data                                     |                                                                                                |                                                                     |                                 |                                   |     |
|     | 5          | Contents                                                | -                                                                                              | Corrosive / Erosive                                                 |                                 | NO                                |     |
|     | 6          | Operating Temp. (°C)                                    | AMB                                                                                            | Liquid Flow (kg/h)                                                  |                                 | -                                 |     |
|     | 7          | Operating Press. (barg)                                 | 0.1                                                                                            | Vap. Molec. Weight (kg/kmol)                                        |                                 | 143.1                             |     |
|     | 8          | Gas Flow (kg/h)                                         | -                                                                                              | Liquid Sp. Gravity                                                  |                                 | 1100                              |     |
|     | 9          | Liquid Viscosity (cP)                                   | 6.63                                                                                           | Lethal:                                                             |                                 | No                                |     |
|     | 10         | Mechanical Design Data (1)                              |                                                                                                |                                                                     |                                 |                                   | D01 |
|     | 11         | Design Temp. (°C)                                       | 85                                                                                             | Vessel Orientation                                                  |                                 | Horizontal                        |     |
|     | 12         | Design Press. (barg)                                    | 5                                                                                              | LLLL / HHLL (mm)                                                    |                                 | 150 / 800                         |     |
|     | 13         | Test Press. (barg)                                      | Per Code & Spec. Requirements                                                                  |                                                                     | Normal Liquid Vol. (m³)         | 4                                 |     |
|     | 14         | Internal Vacuum (barg)                                  | F.V.                                                                                           |                                                                     | In. Dia. Of Boots (mm)          | N/A                               |     |
|     | 15         | In. Dia. of Shell (mm)                                  | 1100                                                                                           |                                                                     | Boot Length (mm)                | N/A                               |     |
|     | 16         | Tan/Tan Dim. (mm)                                       | 3600                                                                                           |                                                                     | Boot Head Type                  | N/A                               |     |
|     | 17         | Vessel Head Type                                        | 2:1 Elliptical (Note 31)                                                                       |                                                                     | Corr. Allowance (mm)            | 3                                 |     |
|     | 18         | Shell Wall Thk. (mm)                                    | *(1)                                                                                           |                                                                     | Joint Efficiency                | 0.85 (Shell) / 1 (Head)           |     |
|     | 19         | Head Wall Thk. (mm)                                     | * (1)                                                                                          |                                                                     | Ambient Temp. (°C)              | 5 ~ 50                            |     |
|     | 20         | Seismic Design                                          | Site Class : D, Code: ASCE 7-10                                                                |                                                                     | MDMT (°C)                       | 5                                 |     |
|     | 21         | Wind Design                                             | Speed: 120 Km/hr (Max.), Code: ASCE 7-10                                                       |                                                                     | Insulation Required             | -                                 |     |
|     | 22         | Materials                                               |                                                                                                |                                                                     |                                 |                                   | D01 |
| D01 | 23         | Code                                                    | ASME II /ASTM                                                                                  |                                                                     | Internal Welded Supports        | A 516 70                          | D01 |
| D01 | 24         | Shell                                                   | A 516 70                                                                                       |                                                                     | Nozzle Necks                    | A 106 Gr.B                        | D01 |
| D01 | 25         | Heads                                                   | A 516 70                                                                                       |                                                                     | Pipes                           | A 106 Gr.B                        | D01 |
|     | 26         | Lining                                                  | P8                                                                                             |                                                                     | Plates                          | A 516 70                          | D01 |
| D01 | 27         | Saddles                                                 | A 283 Gr. C                                                                                    |                                                                     | Forgings                        | A 105                             | D01 |
| D01 | 28         | Wear Plate                                              | A 516 70                                                                                       |                                                                     | Flanges                         | A 105                             | D01 |
| D01 | 29         | Stiffening Rings                                        | A 516 70                                                                                       |                                                                     | Fittings                        | A 234 Gr. WPB                     | D01 |
|     | 30         | Gaskets                                                 | Note 26                                                                                        |                                                                     | Welded Internals                | A 516 70                          | D01 |
| D01 | 31         | Lifting Lugs                                            | A 516 Gr.70 / A 283 Gr. C                                                                      |                                                                     | External Bolts / Nuts (Note 11) | A 193 Gr. B7 / A 194 Gr. 2H       | D01 |
| D01 | 32         | Reinforcing Pads                                        | A 516 70                                                                                       |                                                                     | Internal Bolts / Nuts (Note 11) | S.S.                              | D01 |
|     | 33         | Ladder & Platform                                       | C.S.                                                                                           |                                                                     | External Welded Clips           | A 516 Gr.70                       | D01 |
|     | 34         | Gratings                                                | Hot Dip Galvanized C.S.                                                                        |                                                                     | Name Plate                      | S.S. 316                          |     |
|     | 35         |                                                         |                                                                                                |                                                                     |                                 |                                   |     |
|     | 36         | REFERENCE STANDARDS & DOCUMENTS                         |                                                                                                |                                                                     |                                 |                                   | D01 |
|     | 37         | Mechanical Design Code                                  |                                                                                                | ASME Sec VIII Div 1, IPS-G-ME-150 (Latest Edition)                  |                                 |                                   | D01 |
|     | 38         | Specification for Pressure Vessels                      |                                                                                                | BK-GNRL-PEDCO-000-ME-SP-0001                                        |                                 |                                   |     |
|     | 39         | Process Basis of Design                                 |                                                                                                | BK-GNRL-PEDCO-000-PR-DB-0001                                        |                                 |                                   |     |
|     | 40         | Piping & Instrument Diagram (P&ID)                      |                                                                                                | BK-GCS-PEDCO-120-PR-PI-0025                                         |                                 |                                   | D01 |
|     | 41         | Specification for Painting                              |                                                                                                | BK-GNRL-PEDCO-000-PI-SP-0006                                        |                                 |                                   |     |
|     | 42         | Specification for Insulation                            |                                                                                                | BK-GNRL-PEDCO-000-PI-SP-0019                                        |                                 |                                   |     |
|     | 43         | Specification For Material Requirements in Sour service |                                                                                                | BK-GNRL-PEDCO-000-PI-SP-0008                                        |                                 |                                   |     |
|     | 44         | Specification For lining                                |                                                                                                | BK-GNRL-PEDCO-000-PI-SP-0007                                        |                                 |                                   |     |
|     | 45         | Fabrication and Inspection Requirements                 |                                                                                                |                                                                     |                                 |                                   |     |
|     | 46         | Inspection Authority                                    | TPI & Client                                                                                   |                                                                     |                                 |                                   |     |
|     | 47         | Material Certification                                  | In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments |                                                                     |                                 |                                   |     |
|     | 48         | Hydro Test Medium                                       | Water                                                                                          | Hydro Test Procedure                                                |                                 | Yes;Per Code & Spec. Requirements |     |
|     | 49         | Post Weld Heat Treatment                                | Per Code & Spec. Requir.                                                                       | PT                                                                  |                                 | 100%                              |     |
|     | 50         | MT                                                      | 100 % on Lifting Lug Fillet Welds                                                              | UT                                                                  |                                 | Yes;Per Code & Spec. Requirements |     |
|     | 51         | RT                                                      | 100 % On T-Joints and Head Joints Butt-Welds,                                                  |                                                                     |                                 |                                   |     |
|     | 52         |                                                         | Spot On Shell Longitudinal and Circumferential Joints Butt-Welds,                              |                                                                     |                                 |                                   |     |
|     | 53         |                                                         | 100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,               |                                                                     |                                 |                                   |     |
|     | 54         | RT Report                                               | Yes; Per Code & Spec. Requir.                                                                  |                                                                     | PT Report                       | Yes;Per Code & Spec. Requirements |     |
|     | 55         | MT Report                                               | Yes; Per Code & Spec. Requir.                                                                  |                                                                     | UT Report                       | Yes;Per Code & Spec. Requirements |     |
|     | 56         | Fabrication Quality Control Plan (With Offer)           |                                                                                                | Yes                                                                 |                                 |                                   |     |
|     | 57         | Welding Procedure Review / Approval                     |                                                                                                | Yes                                                                 |                                 |                                   |     |
|     | 58         | Surface Preparation & Coating                           |                                                                                                | Specification for Painting with Doc. No. "BK-GNRL-PEDCO-PI-SP-0006" |                                 |                                   |     |
|     | 59         |                                                         |                                                                                                | Specification For Lining, Doc. No.: "BK-GNRL-PEDCO-000-PI-SP-0007"  |                                 |                                   |     |
|     | 60         |                                                         |                                                                                                |                                                                     |                                 |                                   |     |
|     | 61         |                                                         |                                                                                                |                                                                     |                                 |                                   |     |
|     | 62         |                                                         |                                                                                                |                                                                     |                                 |                                   |     |
|     | 63         |                                                         |                                                                                                |                                                                     |                                 |                                   |     |
|     | 64         |                                                         |                                                                                                |                                                                     |                                 |                                   |     |



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شماره صفحه: ۸ از ۶

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 2 of 4

|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------|--------------------|------------------------|---------------------------|------------------------------------------|------------------------|---------------------------|-------------|------------|---------------|------|---------|------|
| Rev.                                                                                                                | ACCESSORIES , NOZZLES LIST & LOADS @ BASE |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         | Rev. |
|                                                                                                                     | Accessories & Attachments (Note 25)       |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         | D01  |
|                                                                                                                     | Supporting Saddles                        |                           |                    |                        | Yes                       | Name Plate Bracket                       |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Access Ladder & Platform                  |                           |                    |                        | Yes                       | Name Plate                               |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Insulation Support                        |                           |                    |                        |                           | Earthing Lug (Note 30)                   |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Insulation                                |                           |                    |                        |                           | Tailing Lug                              |                        |                           |             |            |               |      |         |      |
|                                                                                                                     | Insulation Cover                          |                           |                    |                        |                           | Cathodic Protection (Sacrificial Anodes) |                        |                           |             |            |               |      |         |      |
|                                                                                                                     | Fireproofing Support                      |                           |                    |                        | Yes                       | Anchor Bolts                             |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Lifting Lugs                              |                           |                    |                        | Yes                       | Instrumentations                         |                        |                           |             |            |               |      |         |      |
|                                                                                                                     | Internal/ External Clips                  |                           |                    |                        | Yes                       | Skid                                     |                        |                           |             |            |               |      |         |      |
|                                                                                                                     | Tamplate                                  |                           |                    |                        |                           | Support Clips                            |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Boot                                      |                           |                    |                        |                           | Vortex Breaker                           |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Davit for Manhole                         |                           |                    |                        | Yes                       | Rung & Grip                              |                        |                           |             | Yes        |               |      |         |      |
|                                                                                                                     | Internal Lining (By Painting)             |                           |                    |                        |                           | Heating Coil                             |                        |                           |             |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|                                                                                                                     | Nozzles List *(Note 1)                    |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|                                                                                                                     | Mark                                      | Qty.                      | Description        | Pipe                   |                           |                                          | Flange                 |                           |             | Proj. (mm) | Reinforcement |      | Remarks |      |
|                                                                                                                     |                                           |                           |                    | Size                   | Thk. *                    | Sch. *                                   | Type                   | Rate.                     | Face        | (Note 32)  | Thk.          | O.D. |         |      |
|                                                                                                                     | A                                         | 1                         | Inlet              | 2"                     | -                         | -                                        | WN                     | #150                      | RF          | SEE DWG    |               |      |         |      |
|                                                                                                                     | B                                         | 1                         | Blanketing         | 2"                     | -                         | -                                        | WN                     | #150                      | RF          | SEE DWG    |               |      |         |      |
|                                                                                                                     | V1                                        | 1                         | Vent               | 2"                     | -                         | -                                        | WN                     | #150                      | RF          | SEE DWG    |               |      |         |      |
|                                                                                                                     | M                                         | 1                         | Manhole            | 20"                    | -                         | -                                        | WN                     | #150                      | RF          | SEE DWG    |               |      |         |      |
|                                                                                                                     | S                                         | 1                         | Utility Connection | 2"                     | -                         | -                                        | WN                     | #150                      | RF          | SEE DWG    |               |      |         |      |
|                                                                                                                     | D                                         | 1                         | Drain              | 2"                     | -                         | -                                        | WN                     | #150                      | RF          | SEE DWG    |               |      |         |      |
| P1                                                                                                                  | 1                                         | Pressure gauge            | 2"                 | -                      | -                         | WN                                       | #300                   | RF                        | SEE DWG     |            |               |      |         |      |
| L1,2                                                                                                                | 2                                         | Level Transmitter         | 2"                 | -                      | -                         | WN                                       | #300                   | RF                        | SEE DWG     |            |               |      |         |      |
| PH                                                                                                                  | 1                                         | Pump Hole                 | 24"                | -                      | -                         | WN                                       | #150                   | RF                        | SEE DWG     |            |               |      |         |      |
| P2                                                                                                                  | 1                                         | Pressure Transmitter      | 2"                 |                        |                           | WN                                       | #300                   | RF                        | SEE DWG     |            |               |      |         |      |
| PSV                                                                                                                 | 1                                         | Pressure Safety Valve     | 2"                 |                        |                           | WN                                       | #300                   | RF                        | SEE DWG     |            |               |      |         |      |
| V2                                                                                                                  | 1                                         | Ventilation               | 4"                 | -                      | -                         | WN                                       | #150                   | RF                        | SEE DWG     |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
| Wind and Seismic Loads at Base * Note(9)                                                                            |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
| <div></div> <div>Load Type</div> | Empty Condition                           |                           |                    | Operating Condition    |                           |                                          | Testing Condition      |                           |             |            |               |      |         |      |
|                                                                                                                     | Max. Shear @ Base (Kg)                    | Max. Moment @ Base (Kg.m) | Weight (Kg)        | Max. Shear @ Base (Kg) | Max. Moment @ Base (Kg.m) | Weight (Kg)                              | Max. Shear @ Base (Kg) | Max. Moment @ Base (Kg.m) | Weight (Kg) |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |
|                                                                                                                     |                                           |                           |                    |                        |                           |                                          |                        |                           |             |            |               |      |         |      |



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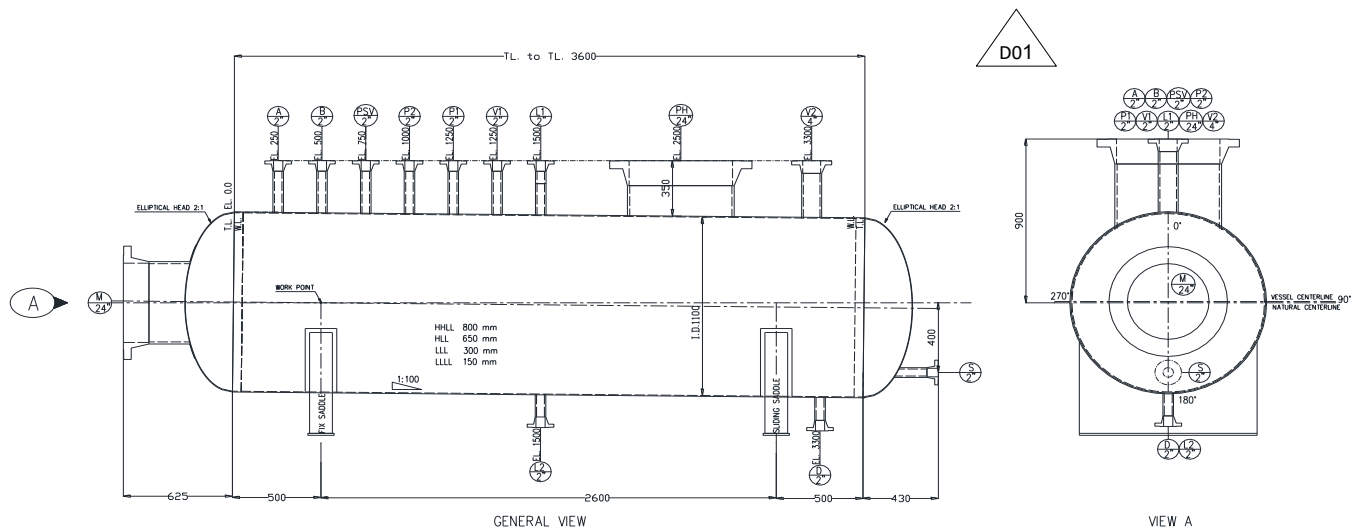
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شماره صفحه: ۸ از ۷

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 3 of 4

Sketch





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Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 4 of 4

| Rev. | WEIGHT                                                                             |                   |             |                                            |                    |                   | Rev.           |
|------|------------------------------------------------------------------------------------|-------------------|-------------|--------------------------------------------|--------------------|-------------------|----------------|
| 1    | <b>WEIGHT CONTROL DATA SHEET</b><br>SI UNIT *                                      |                   |             |                                            |                    |                   | D01<br><br>1/1 |
| 2    |                                                                                    |                   |             |                                            |                    |                   |                |
| 3    |                                                                                    |                   |             |                                            |                    |                   |                |
| 4    |                                                                                    |                   |             |                                            |                    |                   |                |
| 5    |                                                                                    |                   |             |                                            |                    |                   |                |
| 6    | Service : <i>Glycol Sump Drum</i>                                                  |                   |             | Location : <i>Bushehr (Binak Oilfield)</i> |                    |                   | D01            |
| 7    | Type :                                                                             |                   |             | Quotation No. :                            |                    |                   |                |
| 8    | No. trains :                                                                       |                   |             | Serial No. :                               |                    |                   |                |
| 9    | No. stages :                                                                       |                   |             |                                            |                    |                   |                |
| 10   | Supplier :                                                                         |                   |             |                                            |                    |                   |                |
| 11   | Manufacturer :                                                                     |                   |             |                                            |                    |                   |                |
| 12   | Model :                                                                            |                   |             |                                            |                    |                   |                |
| 13   |                                                                                    |                   |             |                                            |                    |                   |                |
| 14   | Note: Information to be completed by equipment vendor.                             |                   |             |                                            |                    |                   |                |
| 15   |                                                                                    |                   |             |                                            |                    |                   |                |
| 16   | <b>Total weight (kg) *</b>                                                         |                   |             |                                            |                    |                   |                |
| 17   | Fabrication                                                                        | Erection          | Operation   | Hydrostatic Test                           | Removable internal | Ladder & Platform |                |
| 18   |                                                                                    |                   |             |                                            |                    |                   |                |
| 19   |                                                                                    |                   |             |                                            |                    |                   |                |
| 20   |                                                                                    |                   |             |                                            |                    |                   |                |
| 21   |                                                                                    |                   |             |                                            |                    |                   |                |
| 22   |                                                                                    |                   |             |                                            |                    |                   |                |
| 23   | <b>WEIGHT AND C OF G DATA REQUIRED (9)</b>                                         |                   |             |                                            |                    |                   |                |
| 24   | CONDITION                                                                          | WEIGHT ACCURACY % | WEIGHT (kg) | CENTER OF GRAVITY (mm)                     |                    |                   |                |
| 25   |                                                                                    |                   |             | X                                          | Y                  | Z                 |                |
| 26   | Dry                                                                                |                   |             |                                            |                    |                   |                |
| 27   |                                                                                    |                   |             |                                            |                    |                   |                |
| 28   |                                                                                    |                   |             |                                            |                    |                   |                |
| 29   |                                                                                    |                   |             |                                            |                    |                   |                |
| 30   | <b>SKETCH</b>                                                                      |                   |             |                                            |                    |                   |                |
| 31   |                                                                                    |                   |             |                                            |                    |                   |                |
| 32   |                                                                                    |                   |             |                                            |                    |                   |                |
| 33   |                                                                                    |                   |             |                                            |                    |                   |                |
| 34   |                                                                                    |                   |             |                                            |                    |                   |                |
| 35   |                                                                                    |                   |             |                                            |                    |                   |                |
| 36   |                                                                                    |                   |             |                                            |                    |                   |                |
| 37   |                                                                                    |                   |             |                                            |                    |                   |                |
| 38   |                                                                                    |                   |             |                                            |                    |                   |                |
| 39   |                                                                                    |                   |             |                                            |                    |                   |                |
| 40   |                                                                                    |                   |             |                                            |                    |                   |                |
| 41   |                                                                                    |                   |             |                                            |                    |                   |                |
| 42   |                                                                                    |                   |             |                                            |                    |                   |                |
| 43   |                                                                                    |                   |             |                                            |                    |                   |                |
| 44   |                                                                                    |                   |             |                                            |                    |                   |                |
| 45   |                                                                                    |                   |             |                                            |                    |                   |                |
| 46   |                                                                                    |                   |             |                                            |                    |                   |                |
| 47   |                                                                                    |                   |             |                                            |                    |                   |                |
| 48   |                                                                                    |                   |             |                                            |                    |                   |                |
| 49   |                                                                                    |                   |             |                                            |                    |                   |                |
| 50   |                                                                                    |                   |             |                                            |                    |                   |                |
| 51   |                                                                                    |                   |             |                                            |                    |                   |                |
| 52   | <b>NOTES</b>                                                                       |                   |             |                                            |                    |                   |                |
| 53   | 1) All lifting points to be load tested and certified.                             |                   |             |                                            |                    |                   |                |
| 54   | 2) Any spreader beam to be load tested and certified.                              |                   |             |                                            |                    |                   |                |
| 55   | 3) Lifting / rigging plan for skid mounted equipment to be provided by the Vendor. |                   |             |                                            |                    |                   |                |
| 56   |                                                                                    |                   |             |                                            |                    |                   |                |
| 57   |                                                                                    |                   |             |                                            |                    |                   |                |
| 58   |                                                                                    |                   |             |                                            |                    |                   |                |
| 59   |                                                                                    |                   |             |                                            |                    |                   |                |
| 60   |                                                                                    |                   |             |                                            |                    |                   |                |
| 61   |                                                                                    |                   |             |                                            |                    |                   |                |
| 62   |                                                                                    |                   |             |                                            |                    |                   |                |
| 63   |                                                                                    |                   |             |                                            |                    |                   |                |