ESP-RIFTS: General Data Set

ESP-RIFTS : Minimum Data Set [1]

	Parameter	Description
Field Information	Division Name	Name of operating unit, group of field, etc.
	Field Name	Name of oil field
	Pad or Platform Name	Name of group of wells
	Field Location (Country)	Name of country field is in
	Location of ESP Supply Centre	Country, Province/State, nearest Town/City of source of ESP system. If more than one supply centre, please provide location of main supply centre.
	Location of ESP Teardown Facility	Country, Province/State and nearest Town or City where pulled ESPs are sent for teardown and inspection. If more than one teardown facility, please provide location of main teardown facility.
	Field Type	Onshore, Offshore (Platform), Offshore (Subsea), Onshore/Offshore
Fluid Information	Oil Density at STP	Oil density in°API at standard temperature (15°C) and pressure (1 atm)
	Reservoir Temperature	Fluid temperature at reservoir conditions
	Oil Bubble Point Pressure	Bubble point (vapour) pressure of oil at Reservoir Temperature
	Dead Oil Viscosity at STP	Dead oil viscosity at standard temperature (15°C) and pressure (1 atm)
	Live Oil Viscosity at Reservoir Conditions	Live oil viscosity at reservoir temperature and pressure. If not provided, Live Oil Viscosity at Reservoir Conditions will be calculated as per Notes.
Well Information	Well Name	Name or identifier of well
	Well Type (Geometry)	Vertical, Slant, Deviated, Horizontal, Sidetracked, or Multilateral
	Wellhead Location	Onshore, Platform, Subsea
	Reservoir/Zone Name	Name(s) of producing reservoirs (during production period)
	Reservoir Type	Carbonate, Consolidated Sandstone, Unconsolidated Sandstone, Evaporate
	Reservoir Recovery Mechanism	Aquifer drive, Solution Gas Drive, Water flood, EOR (e.g., C02 flood, Water-Alternating-Gas (WAG), Polymer Flood)
	Completion Type	Perforated Casing, Open hole, or Slotted liner
	Sand Control Type	Type of sand control installed in the well during the production period, e.g. Gravel Pack, Slotted Liner, Wire-wrapped Screen, etc. If no sand control installed, please indicate None.
	Production Casing Outer Diameter	Nominal outer diameter of the production casing
Runtime Data (dates)	Production Period Number	Production period number for well
	Date Installed	Date ESP system was installed
	Date Period Started	Date ESP system was first started. If not provided, the Date Period Started will be assumed equal to the Date Installed.
	Period Status	Completed or Still Running
	Date Period Ended	Date ESP system failed, was shutdown, or last date record was updated if ESP still running. If not provided, the Date Period Ended will be assumed equal to the Date Pulled.
	Date Pulled	Date ESP system was pulled
	Actual Runtime[2]	Days the ESP system was actually running. If not provided, Actual Runtime will be assumed equal to Duration[2].
Failure Information (as per ESP Failure Nomenclature Standard)	ESP System Failed?	Did/has the ESP system failed (Yes or No)? This parameter should be consistent with the Period Status, i.e. if Period Status is "Still Running", then ESP System Failed? should be "No".
	Reason for Pull: General	The motive for the ESP System pull
	Reason for Pull: Specific	The specific motive for the ESP System pull
	Primary Failed Item	The primary failed ESP component/system (after investigation)
	Primary Failure Mechanism	The primary failure mechanism of the failed ESP component/system (after investigation)
	Secondary Failure Mechanism	The secondary failure mechanism of the failed ESP component/system (after investigation)
	Failure Cause: General	Cause Category: Circumstances during design, manufacture or use that led to the failure (after investigation)
	Failure Cause: Specific	Specific cause: Circumstances during design, manufacture or use that led to the failure (after investigation)
	Failure Comments	Specific notes regarding the failure. Include a description of the contaminant if the Contaminated failure descriptor is used.
Surface Equipment Data	Control Panel Type	Type of control panel: Switch board, Soft start, Variable Frequency/Speed Drive
	Control Panel Vendor	Name of vendor/manufacturer of control panel component(s)
	Power Source	Local Power Line/Grid, Field Generator, Wellsite Generator

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	Parameter	Description
Downhole Equipment Data	Pump Vendor	Name of vendor/manufacturer of pump component(s)
	Pump Type/Model	Catalogue type/model of pump (e.g., DN3000)
	Number of Pump Stages	Number of pump stages
	Pump Trim	Metallurgy, elastomers and/or coatings
	Pump Serial Number(s)	Serial number(s) or unique identifiers for that specific pump
	Pump New/Used	When installed, was the pump New, Used (without service or minor servicing only), or Repaired (used and serviced)
	Pump Pull Condition	Is the pump Reusable or Not Reusable in the intended application in its current state?
	Seal Vendor	Name of vendor/manufacturer of seal (protector) component(s)
	Seal Type/Model	Catalogue type/model of seal (e.g., LSBSB-HL)
	Seal Trim	Metallurgy, elastomers and/or coatings
	Seal Serial Number(s)	Serial number(s) or unique identifiers for that specific seal
	Seal New/Used	When installed, was the seal New, Used (without service or minor servicing only), or Repaired (used and serviced)
	Seal Pull Condition	Is the seal Reusable or Not Reusable in the intended application in its current state?
	Motor Vendor	Name of vendor/manufacturer of motor component(s)
	Motor Type/Model	Catalogue type/model of motor (e.g., KMH)
	Motor Rated Power @ 60Hz	Rated power of the motor at 60 Hz
	Motor Trim	Metallurgy, elastomers and/or coatings
	Motor Serial Number(s)	Serial number(s) or unique identifiers for that specific motor
	Motor New/Used	When installed, was the motor New, Used (without service or minor servicing only), or Repaired (used and serviced)
	Motor Pull Condition	Is the motor Reusable or Not Reusable in the intended application in its current state?
	Pump Intake Vendor	Name of vendor/manufacturer of pump intake component(s)
	Pump Intake Type	Type of pump intake: Standard Bolt-on Intake, Static Gas Seperator, Rotary Gas Seperator, or Gas Handler
	Pump Intake Trim	Metallurgy, elastomers and/or coatings
	Pump Intake Serial Number(s)	Serial number(s) or unique identifiers for that specific pump intake
	Pump Intake New/Used	When installed, was the pump intake New, Used (without service or minor servicing only), or Repaired (used and serviced)
	Pump Intake Pull Condition	Is the pump intake Reusable or Not Reusable in the intended application in its current state?
	Cable Vendor	Name of vendor/manufacturer of cable component(s)
	Cable AWG Size	American Wire Gauge (AWG) size of the cable
	Cable Type/Model	Catalogue type/model of cable (e.g., Redalead or CELF)
	Cable Armour	Galvanized, Monel, Stainless Steel, etc.
	Cable Serial Number(s)	Serial number(s) or unique identifiers for that specific cable
	MLE Type/Model	Catalogue type/model of motor lead extension (e.g., KELB)
	Cable New/Used	When installed, was the cable New, Used (without service or minor servicing only), or Repaired (used and serviced)
	Cable Pull Condition	Is the main power cable Reusable or Not Reusable in the intended application in its current state?
	Wellhead Penetrator Type/Model	Catalogue type/model of wellhead penetrator
	Packer Penetrator Type/Model	Catalogue type/model of packer penetrator
	DH Monitoring System Vendor	Name of vendor/manufacturer of downhole monitoring system
	DH Monitoring System New/Used	When installed, was the downhole monitoring system New, Used (without service or minor servicing only), or Repaired (used and serviced)
	DH Monitoring System Pull Condition	Is the downhole monitoring system Reusable or Not Reusable in the intended application in its current state?
	Shroud Installed?	Was a shroud installed on the system?
	Shroud Casing Outer Diameter	Outer diameter of shroud. If a shroud is not installed, then leave <blank>.
	Tubing Outer Diameter	Nominal outer diameter of production tubing
	Packer Installed?	Was a packer installed with the ESP System?
	Packer Depth	Measured depth to the top of the packer. If a packer is not installed, then leave <blank>.
	Y-Tool Installed?	Was a Y-Tool installed with the ESP System?
	Pump Seating Depth MD	Measured depth of the pump intake
	Pump Seating Depth TVD	Vertical depth of the pump intake
	Inclination at PSD	Inclination (hole angle) at the PSD
	Maximum Dogleg	Maximum curvature that the ESP had to pass through during installation
	Number ESP Systems in Well	Number of complete ESP Systems (motor-seal-intake-pump) installed in the well
	ESP System Configuration (Single/Parallel/Series)	If there were/are more than one ESP Systems installed, where they installed in parallel or in series?
	ESP Position in Dual Configuration	If there were/are more than one ESP Systems installed, what configuration is the ESP in: Upper or Lower
	ESP Deployment Method	Method used to install/deploy the ESP: Tbg, Coiled Tbg, Cable, or Wireline.
	ESP Deployment Orientation	Orientation of the ESP: Standard (Motor Downhole of Pump), Inverted (Pump Downhole of Motor), or Unknown
	First ESP System Installed in Well?	Was/is this ESP installation the first ESP installed in this well? (Yes/No)
	Equipment Comments	

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	Parameter	Description
Operating and Production Data **Average data** for period or **more frequent** e.g., monthly or number of intervals (must provide start and end dates of these intervals) during which operating conditions were reasonalby constant.	Total Flow Rate	Total flow rate of produced liquids at standard conditions
	Water Cut	Water flow rate by %volume of produced liquids. Alternatively, produced oil and water rates may be provided.
	Pump Intake Pressure (PIP)	Producing pressure at the pump intake. If not provided, Pump Intake Pressure will be calculated as per Notes.
	Producing Fluid Level	Measured depth to top of annular fluid level
	Pump Intake Temperature	Producing fluid temperature at the pump intake. If not provided, Pump Intake Temperature will be assumed equal to the Reservoir Temperature.
	Free Gas at Pump Intake	Free gas at the pump intake (% by volume at pump intake pressure and temperature). If not provided, Free Gas at Pump Intake will be calculated as per Notes.
	Wellhead Pressure	Pressure of produced fluids at the wellhead
	Casing Head Pressure	Pressure in the casing annulus at the wellhead
	Reservoir Static Pressure (Latest)	Static or shut-in pressure at the pump intake
	Gas-Oil Ratio (GOR)	Producing gas-oil ratio. Alternatively, produced gas rate at standard conditions may be provided.
	Sand Cut	Concentration of produced sand by %volume of produced liquids and solids. If no sand was produced, please enter zero. Alternatively, produced sand rate may be provided.
	Scale?	Presence and relative severity of scale: None, Yes-Present, Light, Moderate, or Severe[3].
	Asphaltenes?	Presence and relative severity of asphaltenes: None, Yes-Present, Light, Moderate, or Severe[3].
	Solids?	Presence and severity of all solids, including sand: None, Yes-Present, Light, Moderate, or Severe[3].
	Sand?	Presence and severity of sand: None, Yes-Present, Light, Moderate, or Severe[3].
	Corrosion?	Presence and severity of Corrosion: None, Yes-Present, Light, Moderate, or Severe[3].
	CO2 (% by volume)	Concentration of CO2 (preference by %volume of gas). If no CO2 observed, enter zero.
	H2S (% by volume)	Concentration of H2S (preference by %volume of gas). If no H2S observed, enter zero.
	CO_2?	Presence and relative severity of CO2: None, Yes-Present, Light, Moderate, or Severe[3].
	H_2S?	Presence and relative severity of H2S: None, Yes-Present, Light, Moderate, or Severe[3].
	Water pH	Acidity of produced water - tends to be indication of corrosivity
	Water Salinity (Cl- ppm)	Chloride concentration - indication of water density and corrosivity
	Emulsion?	Presence and relative severity of emulsion problem: None, Yes-Present, Light, Moderate, or Severe[3].
	Motor Frequency	Average frequency (Hz) of power supply to motor
	Motor Voltage	Average voltage of power supply to motor
	Motor Current	Average current of power supply to motor
	Number of Restarts During Period	Total number of starts during the production period
	Surface Steam Injection Pressure	Pressure of the injected steam at the surface
	Casing Vent Gas Pressure	Pressure of gas at the casing vent
	Casing Vent Gas Rate	Gas flow rate at the casing vent
	Stage of the SAGD Cycle	SAGD Cycle stage at time of Production Data measurement: Circulation, SAGD, or Blow down
	Period Comments	Corrosion treatments, etc.
Practices **(OR answer questions in ESP-RIFTS Field Survey Form)**	Any written or verbal procedure, practices associated with design, procurement, manufacture, transportation, inspection, installation, operating, pulling and/or failure analysis.	
	ESP Surveillance System (SCADA/Operator/Other)	
	Automatic or Manual Control?	

Number General Data Set Parameters = 131

Number Minimum Data Set Parameters = 40

Notes:
1. Parameters in the Minimum Data Set are highlighted in yellow. Click on buttons labeled "1" and "2" in top left corner of spreadsheet to switch between Minimum and General Data Sets, respectively.
2. Duration is the days between Date Period Started and Date Period Ended. Time In Hole is the days between Date Pulled and Date Installed.
3. None: substance or problem not observed.
   Yes: Present: substance or problem is present but the concentration/severity is unknown.
   Light: substance or problem observed but in small amount and not believed to be a problem for ESPs.
   Moderate: moderate amounts of substance or problem observed, may be or has occasionally been a problem.
   Severe: substantial amounts of substance or problem observed, strongly believed or known to be a problem.