

## H<sub>2</sub>S Treating Methods, Comparison Checklist

GTC Vorro Comprehensive H<sub>2</sub>S Treating Business Model  
Comparison vs. Triazine/Liquid Scavenger and Direct Purchase Adsorbents

Treating Method	Liquid Scavengers (Triazine, non-triazine, etc.)	Adsorbent: Straight Purchase	GTC Vorro All-Inclusive H <sub>2</sub> S Treating
Equipment supply	COMPANY, supplier or third party	COMPANY, supplier or third party	GTC Vorro or COMPANY (if preferred by COMPANY)
Electrical utility required for operation	YES (cost to COMPANY)	Depends on equipment	No
Moving parts (Equipment maintenance and breakdown risk)	To COMPANY, YES bubble tower, NO static mixer, YES straight injection/atomizer	To COMPANY, cost and time	GTC Vorro responsibility
General maintenance & normal wear & tear replacement	To COMPANY, cost and time	To COMPANY, cost and time	GTC Vorro responsibility
Power interruption(s)	Bubble tower and atomizer stop treating	Depends on equipment	Will still treat if gas is flowing
Hazardous compounds	YES	NO (assumes similar core chemistry to GTC Vorro adsorbents)	NO
Hazardous waste	YES	NO (assumes similar core chemistry to GTC Vorro adsorbents)	NO
Waste disposal	To COMPANY, cost and time	To COMPANY, cost and time	GTC Vorro
Downstream impact	YES - scaling, corrosion, pigging and planned maintenance, potential for chemical contamination in midstream equipment/process	None (assumes similar core chemistry to GTC Vorro adsorbents)	GTC Vorro responsibility
Performance risk	To COMPANY - if the liquid scavenger does not perform as well as expected CUSTOMER will need to purchase more to maintain required results	To COMPANY - if adsorbent does not perform as well as expected CUSTOMER will need to purchase more to maintain required results or change version/supplier	GTC Vorro - If performance is not as expected GTC Vorro are responsible for increased adsorbent consumed and more frequent change outs and associated higher waste disposal costs
Replenishment / refill	To COMPANY, time (POs / order generation) and cost	To COMPANY, time (POs / order generation) and cost	GTC Vorro manages and arranges all change outs independently of COMPANY
Clean out work	To COMPANY, time (POs / order generation) and cost	To COMPANY, time (POs / order generation) and cost	GTC Vorro manages and arranges all change outs independently of COMPANY
Transport and logistics	To COMPANY, cost and time	To COMPANY, cost and time	Cost to GTC Vorro
Fuel surcharges/ weekend working	To COMPANY account	To COMPANY account	Cost to GTC Vorro
Scavenger / adsorbent availability	COMPANY exposed to prevailing market conditions	COMPANY exposed to prevailing market conditions	GTC Vorro responsibility - multiple sources secured