Brigantine Group
How to Be Paid More For Your Oil Sludge
If you are a ship owner, there is strong possibility you are not getting real value in one or more of the following ways in some ports in the world:

- The money that rightfully belongs to the ship owner is being put into the pocket of your crew in the form of a kick-back, for turning a blind eye to the process. Usually this kick-back is only a tiny percentage of the value of the oil sludge.

- The sludge disposer is metering the discharge himself and declares a fraction of what is actually discharged. Depending on the ship’s design, the ship’s engineering crew may have little idea how much oil sludge they actually discharge.

- The sludge disposer is declaring the percentage of water contained in the sludge is much higher than reality. This means he pays for less than the actual amount of pure oil sludge discharged. It is not uncommon for oil to make up 60-70% of sludge if allowed to settle, but it may be self reported by the sludge remover at 30-35% oil content.

- There have even been reported cases of crew involvement in outright theft of fuel oil where, under the guise of “sludge”, HFO/MDO has been pumped to the sludge barge, either directly, or as a “sweetener” to the sludge.
Does your current oil sludge disposer index his payment to you based on the price of crude oil?

- If the price of crude oil is USD 35 per barrel, you should expect to be paid around 80 USD per metric ton of pure oil sludge. When the price of crude oil increases, you should expect to be paid more.

- One of Brigantine’s new customers for this business initially stated that they were being paid significantly more per metric ton than Brigantine was offering to pay. In response, Brigantine illustrated how the current oil disposer was not accurately declaring his quantities and oil to water ratios.
Does your current oil sludge disposer index his payment to you based on the price of crude oil? (Continues)

A very simple example:

- NYMEX light sweet crude @ USD35/bbl; should yield a rock bottom minimum of USD80/ton of pure oil sludge.
- Actual discharge from vessel:
  500 tons of sludge at 70%/30% oil to water ratio.
- Sludge remover self declares: 400 tons of sludge at 30%/70% oil to water ratio, but will to pay USD90/ton as “special rate”; along with a small brown envelope to the crewman who signs off on the amount.
- Owner should expect minimum if done properly:
  500x70%xUSD80=USD 28,000.
- What owner might get from sludge disposer:
  400x30%xUSD90= USD 10,800.

Try you own calculation at USD50-60/bbl of oil where the vessel owner should be expecting USD100+ per ton of pure sludge. How are you faring?
### Payment to Vessel Owner in Tier System

USD

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<thead>
<tr>
<th>Price Range of crude oil by barrel</th>
<th>Payment to Vessel Owner per MT</th>
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<tbody>
<tr>
<td>(25~35)</td>
<td>80</td>
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<td>(36~50)</td>
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<tr>
<td>(126~140)</td>
<td>180</td>
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![Graph showing payment to vessel owner in tier system](image)
Does your current oil sludge disposer index his payment to you based on the price of crude oil? (Continues)

- Even under conservative oil prices and price per ton of sludge, Brigantine’s value proposition to vessel owners is compelling. Even with teaser rates from unscrupulous suppliers, vessel owners can be losing 50% or more of what is rightfully due to them.

- Brigantine can also pay more because we are focused on earning more money by maximizing volume at smaller margins. Based on the commitments we have already received, Brigantine has the ability to service all vessels disposing sludge in all Shenzhen ports, Qingdao and Xiamen. This network is being rapidly expanded. With Brigantine’s market coverage, we keep operational costs down and we can give you the best price.
How does Brigantine guard against unethical practices during the performance of the oil sludge disposal?

- Brigantine’s inspection, verification and environmental monitoring staff are our existing ship repair superintendents. They are all highly paid professionals with too much to lose to accept any unethical behavior.

- Most importantly they are rotated on a frequent basis. Hong Kong superintendents will be rotated through Shenzhen; the Shenzhen superintendents are rotated through Shanghai etc. We use the same tried and tested business practices as other companies with positions with the potential for corruption.
Most importantly BRG utilize technology to mitigate the potential for corruption

- Brigantine has designed and adapted a metering system previously used in the oil industry to randomly and precisely meter not only the quantity of fluid discharged, but also precisely measure the oil to water ratio.

- This is proprietary technology, that only Brigantine has with a patent pending, takes the guess work out of the current process. This metering system is regularly calibrated and independently certified to ensure a high degree of accuracy.

- The “Totalizer”, as we like to call it, is locked and cannot be modified short of calling Brigantine’s Head of Marine Services. Customers that want to conduct their own verification simply need to instruct their crew to ensure every liter discharged flows via the metering device and then verify the read out on the “Totalizer”. Of course Brigantine has an inspector on the barge to ensure this actually occurs.
Environmental Compliance is our First Priority

- Brigantine consulted with the Shenzhen Maritime Safety Administration every step of the way prior to implementing our procedures.
- Brigantine’s contractors, are fully licensed and utilize fully compliant barges as well as maintaining an impressive stock of environmental mitigation technology.
- The process is monitored every step of the way from ensuring the utilization of a licensed oil sludge collector as well as a licensed oil sludge recycler.
- The close partnership Brigantine has developed with the appropriate government authorities was designed to remove environmental risk to the customer. For ship owners who have received a large fine or had a ship detained due to an oil sludge related spill, this is an important consideration.
Signing Ceremony, Brigantine and SZ MSA Baoyu

Director of SZ MSA, Mr. Huang

John, David and Head of SZ MSA at the ceremony

GM Chen of MSA Technical Center
Professional Operations by BRG

Emergency aid for oil spill

Safeguard for disposal

Oil collector

Oil collector

Blotting felt

Blowing engine

Barrier serious
Thank you!