

**CASE STUDY**

Off Spec Oil

Beneficial reuse for organics with significant BS&W**Hillstone Case Study**

Ref #001

Prepared for:

Client Review

Date prepared:

01, September 2015.

CFR References:

[40 CFR Part 261](#) and [40 CFR Part 262](#)

55 Federal Register 11798, 11806;
March 29, 1990

Memo, Lowrance to Oberg, April 16,
1991 ([RCRA Online #11599](#))

[SW-846 Online web site](#)

Monthly Call Center Report
Question, January 1994 ([RCRA
Online #13647](#))

Memo, Hansen to Internal Memo,
HQ, January 12, 1993 ([RCRA
Online #11721](#))

40 CFR Section 260.10

A client of ours had nearly 500 BBL's of condensate that was deemed as "waste" by purchasers. The condensate was previously tested multiple times by different purchasers and neither wanted the material due to water content and solids loading. Off spec oil will build up when dealing with any production water if the tanks are not separated and continuously maintained, particularly organic and slop oil tank bottoms.

If the hauler does not leave a proper buffer space between the production tanks they will ultimately collect free and emulsified organics along with the water. We have found this to be especially true if haulers are charging rate per BBL since they are incentivized to run full trucks.

Condensate is a non aqueous phase liquid with a specific gravity less than 1.0 meaning that it will settle on top. There are a variety of tools available to see how much is in a tank however most rely upon color changing indicator pastes on strap sticks and rudimentary centrifuge separation. BS&W (Basic Sediment & Water) which is measured as a volume percentage can dictate loading. If it is higher than 1%, buyers will generally reject the material. If rejected the only option left is to treat the material as a waste and have it disposed of. The material will be ignitable and will be classified as a RCRA (Resource Conservation and Recovery Act) Hazardous Waste which triggers additional hurdles and costs associated with disposal.

PROJECT DESCRIPTION

Analyze and Take Action

Study

Off Spec Oil

Delivery date

September 01, 2015

Project

Determine if the product is sellable and find a purchaser.

Outcome

Analyze rejected co-product, re-evaluate and locate an alternative purchaser.

What does any of this mean and why is it important to you?

Initial Activity

Hillstone's Technical Consultants were able to quickly jump in and offer solutions. We were able to perform onsite screening with our Pensky-Martens Closed Cup Flashpoint Tester to verify that the material would be a RCRA Hazardous Material *if treated as waste*. It had met **D001** requirements for being a Characteristic Waste and would have to be treated differently than a co-product.

We were told it's not usable, now it's waste?

Our client would be required to register the site with the EPA to get an identification number and follow all of the procedures and reporting responsibilities associated with it. While there are RCRA exemptions they do not apply to DOT transfer and will not be honored by receiving landfills

Hillstone Environmental evaluates product

Hillstone's Technical Consultants were able to find our client an outlet that would take and pay for the off spec oil. We performed a more rigorous evaluation and our results illustrated that the material could successfully be used. In this instance we tested the Specific API Gravity, Reid Vapor Pressure, BTU content and Karl Fischer water content in addition to BS&W. Once properly characterized we were able to find an outlet that was willing to purchase the material as an industrial feedstock. Often companies are able to blend materials together, however some purchasers do not want to deal with this extra step, especially when oil is cheap.

Cost for disposal and transportation?

We were able to find all in trucking and disposal rates of \$30 per barrel for this material. In the end our client received a check for \$15,000. Not considering the additional costs that would be associated with compliance, our solution realized a \$30K delta in this single instance.

Our client was pleased with the value Hillstone was able to deliver. Instead of hauling the material off as a hazardous waste requiring a change in the status of the site they were getting paid for it.