6. Produced water market

Water treatment opportunities exist in the oil and gas sector for both process water and produced water. Produced water presents a greater market opportunity for water treatment companies, as water abstracted and used for process may be of adequate quality for the process, whereas produced water may not be of adequate quality to be disposed of.

6.1 Market division/segmentation

There are three areas of opportunities within produced water:
- engineering and design,
- chemicals,
- capital equipment and technology.

The focus of this report is with capital equipment and technology. Within capital equipment, this report will focus on water treatment systems, though will also briefly cover monitoring equipment.

The produced water market can be divided between onshore and offshore. Some equipment is used in both applications, while some technologies are specific to onshore and offshore. However, one expert considers shale as separate market as the technology required is quite different to other onshore operations.

Figure 6.1 Breakdown of capital equipment and technology

Source: GWI Research, 2010
6.2 Key players and emerging players

Examining the produced water sector globally, the key players are listed in the tables below. Many of the players in primary and secondary treatment are also involved in the tertiary and advanced treatment market. However, some companies have technologies only for tertiary or the advanced treatment of produced water. The main players in providing the chemicals and the engineering and design services are also provided in a table below. The breakdown of big players to small players is estimated at 50-50, but again this will vary widely annually due to changing projects.

**Figure 6.2 Key players for primary and secondary treatment**

Source: GWI Research, 2010

[Sample]

and are 2 of the biggest global players. is viewed to have lost a significant portion of the global market share over the past 2 years. However, market share can shift significantly year to year based on projects awarded. Nearly half of flotation projects are technologies. Globally, is one of the largest players offshore for along with a lot of small local players. Globally, has one of the largest market shares with their technology, but are having difficulty breaking into the US market, especially shale.

In addition to the players listed in the table above, more companies are getting into advanced treatment. There is no clear leader and many companies are exploring produced water treatment within shale operations. There are significantly more players involved in the advanced market compared to primary and secondary. A lot of different companies are also getting opportunities to run pilot projects, helping them enter the market.

Many players entering the advanced treatment market have different in-house technologies and are trying to align their expertise with operations where appropriate.
Additional to key players, are emerging players. Many companies who have global shares have no share of the US market. Some are trying to break into the US market. For instance, [Name] would be one of these companies. While [Name] is viewed by other players with as a credible, viable player, their challenge in breaking into the market may be that they do not provide undifferentiated offerings.

The market has become very competitive over the past few years, especially since the science behind the equipment is not too advanced. This allows the smaller players to enter the market. For instance, [Name], local suppliers are taking over the market.

Looking at the monitoring sector, [Name] holds approximately 50% of the global market. Most of the opportunity for monitoring equipment is at the end of the treatment process, though there is sometimes scope for monitoring in between the stages.
Currently, there are both small and large players in the shale gas market, with no clear leader. It is suspected that small players will disappear and big players will have the best shot at addressing the challenges of water management within the sector.

### 6.3 Consolidation

Many of the larger companies have recently acquired the smaller companies. The following table illustrates the company consolidation over the past few years. If small players are working on large contracts or interesting technologies, there is a chance they will be acquired by larger companies. For instance, [Company A] wasn’t considered a player and a few years ago started winning onshore and offshore projects. In 2007, they were acquired by [Company B].

### 6.4 Market size estimate

The market size for produced water treatment globally is estimated at $[Market Size] annually. This includes all aspects of produced water treatment including equipment, chemicals and engineering services.
Looking specifically at the U.S. market, there is a wide range of data on the market size. This variance from year to year is due to new projects. Generally, the breakdown of market size between treatment levels is as follows. Although, some experts estimate primary to hold a larger part of the market size. Some small companies are also approaching bigger players such as [Company A] and [Company B] to form partnerships.

**Figure 6.7 USA Market Size Estimates for Produced Water Treatment**

![Market Size Estimates](source)

Source: GWI Research, 2010

### 6.5 Market share estimate

[Company A], [Company B], and [Company C] hold the majority of the market share for produced water treatment in the USA. Looking at primary and secondary treatment, the breakdown for onshore and offshore is [Onshore Share], [Offshore Share], with [Company A] holding over half. Other players holding part of the market share for primary and secondary treatment including [Company D], [Company E], and [Company F].

There is almost no market for tertiary treatment of produced water in the [Sector], and the market is limited to [Company A]. When examining tertiary treatment for [Onshore/Offshore], the breakdown of market share is quite similar to primary and secondary treatment. Again, [Company A], [Company B], and [Company C], along with [Company D], hold the majority of the market share. A breakdown of market share is provided in the tables below.
It is important to note that the market share can change significantly year to year, depending on who wins bids for specific projects.
6.6 Estimated growth rates

Figure 6.10 Annual Market Growth Rate by Treatment

Source: GWI Research, 2010

6.7 Trends and developments