SANDELL ASSET MANAGEMENT

CASTLERIGG INVESTMENTS

Obfuscation and Misdirection at TPC Group Inc.:

Analysis of the Process and Alternatives for TPCG
by Sandell Asset Management Corp.

October 2012

SAMC Analysis of TPC Group Inc.

DISCLAIMER

THIS PRESENTATION WITH RESPECT TO TPC GROUP INC (ñTPCGò, ñTPCG GROUPò OR THE ñCOMPANYò) IS FOR GENERAL INFORMATIONAL PURPOSES ONLY. IT DOES NOT HAVE REGARD TO THE SPECIFIC INVESTMENT OBJECTIVE, FINANCIAL SITUATION, SUITABILITY OR PARTICULAR NEED OF ANY SPECIFIC PERSON WHO MAY RECEIVE THIS PRESENTATION, AND SHOULD NOT BE TAKEN AS ADVICE ON THE MERITS OF ANY INVESTMENT DECISION. THE VIEWS EXPRESSED HEREIN REPRESENT THE OPINIONS OF SANDELL ASSET MANAGEMENT CORP. (ñSAMCò), AND ARE BASED ON PUBLICLY AVAILABLE INFORMATION AND SAMC ANALYSES. CERTAIN FINANCIAL INFORMATION AND DATA USED HEREIN HAVE BEEN DERIVED OR OBTAINED FROM FILINGS MADE WITH THE SEC BY THE COMPANY, AFFILIATES OR ENTITIES WITHIN THE GROUP OR OTHER COMPANIES CONSIDERED COMPARABLE, AND FROM OTHER THIRD PARTY REPORTS. NO REPRESENTATION OR WARRANTY IS MADE THAT DATA OR INFORMATION, WHETHER DERIVED OR OBTAINED FROM FILINGS MADE WITH THE SEC OR FROM ANY THIRD PARTY, ARE ACCURATE, AND SAMC SHALL NOT BE RESPONSIBLE OR HAVE ANY LIABILITY FOR ANY MISINFORMATION CONTAINED IN ANY SEC FILING OR THIRD PARTY REPORT.

SAMC HAS NOT SOUGHT OR OBTAINED CONSENT FROM ANY THIRD PARTY TO USE ANY STATEMENTS OR INFORMATION INDICATED HEREIN AS HAVING BEEN OBTAINED OR DERIVED FROM A THIRD PARTY. ANY SUCH STATEMENTS OR INFORMATION SHOULD NOT BE VIEWED AS INDICATING THE SUPPORT OF SUCH THIRD PARTY FOR THE VIEWS EXPRESSED HEREIN.

THERE IS NO ASSURANCE OR GUARANTEE WITH RESPECT TO THE PRICES AT WHICH ANY SECURITIES OF THE ISSUER WILL TRADE, AND SUCH SECURITIES MAY NOT TRADE AT PRICES THAT MAY BE IMPLIED HEREIN. THE ESTIMATES, PROJECTIONS, PRO FORMA INFORMATION AND POTENTIAL IMPACT OF SAMCõS ACTION PLAN SET FORTH HEREIN ARE BASED ON ASSUMPTIONS THAT SAMC BELIEVES TO BE REASONABLE, BUT THERE CAN BE NO ASSURANCE OR GUARANTEE THAT ACTUAL RESULTS OR PERFORMANCE OF THE COMPANY WILL NOT DIFFER, AND SUCH DIFFERENCES MAY BE MATERIAL. THIS PRESENTATION DOES NOT RECOMMEND, AND SHOULD NOT BE CONSIDERED AS AN OFFER FOR, THE PURCHASE OR SALE OF ANY SECURITY. SAMC RESERVES THE RIGHT TO CHANGE ANY OF ITS OPINIONS EXPRESSED HEREIN AT ANY TIME AS IT DEEMS APPROPRIATE. SAMC DISCLAIMS ANY OBLIGATION TO UPDATE THE INFORMATION CONTAINED HEREIN.

PRIVATE INVESTMENT FUNDS ADVISED BY SAMC CURRENTLY HOLD SHARES OF COMMON STOCK REPRESENTING AGGREGATE OWNERSHIP OF APPROXIMATELY 7% OF THE OUTSTANDING COMMON STOCK OF THE COMPANY. SAMC MANAGES INVESTMENT FUNDS THAT ARE IN THE BUSINESS OF TRADING ï BUYING AND SELLING ï PUBLIC SECURITIES. IT IS POSSIBLE THAT THERE WILL BE DEVELOPMENTS IN THE FUTURE THAT CAUSE SAMC AND/OR ONE OR MORE OF THE INVESTMENT FUNDS IT MANAGES, FROM TIME TO TIME (IN OPEN MARKET OR PRIVATELY NEGOTIATED TRANSACTIONS OR OTHERWISE), TO SELL ALL OR A PORTION OF THEIR SHARES (INCLUDING VIA SHORT SALES), BUY ADDITIONAL SHARES OR TRADE IN OPTIONS, PUTS, CALLS OR OTHER DERIVATIVE INSTRUMENTS RELATING TO SUCH SHARES. SAMC AND SUCH INVESTMENT FUNDS ALSO RESERVE THE RIGHT TO TAKE ANY ACTIONS WITH RESPECT TO THEIR INVESTMENTS IN THE COMPANY AS THEY MAY DEEM APPROPRIATE, INCLUDING, BUT NOT LIMITED TO, COMMUNICATING WITH MANAGEMENT OF THE COMPANY, THE BOARD OF DIRECTORS OF THE COMPANY AND OTHER INVESTORS AND THIRD PARTIES, AND CONDUCTING A PROXY SOLICITATION WITH RESPECT TO THE ELECTION OF PERSONS TO THE BOARD OF DIRECTORS OF THE COMPANY.

SAMC Analysis of TPC Group Inc.

Executive Summary

- Sandell Asset Management Corp. (SAMC) holds 7.0% of the outstanding shares of TPC Group (TPCG). Upon reading the preliminary proxy statement, **we stand by our belief that the sale process was flawed and tainted by ‘self-dealing’, the projections employed were low-balled to the benefit of First Reserve & SK Capital (PE Buyers) and management, and the Exit Multiple needs to be re-rated upwards to reflect the MLP-qualifying nature of TPCG’s stable, processing-based cash flows**.

- With a thorough reading of the preliminary proxy, we believe that **potential strategic bidders were unquestionably at a disadvantage** compared to financial bidders. This despite the overwhelming evidence that strategic acquirers usually pay more given operational and financial synergies. **We stand by our initial belief that this process was flawed and tainted by ‘self-dealing’.** Given the level of strategic interest, **the fact that a ‘go-shop’ period was not negotiated** to ensure that shareholders receive the maximum value for their shares evidences the self-interest which poisoned this process.

- Upon analyzing the Fairness Opinion valuation methodologies, we believe the **opinion was biased towards a low valuation for TPCG, justifying the inadequate transaction price and thereby enabling a high return for the PE Buyers and management**.

  - TPCG is repeatedly and incorrectly compared to volatile, commodity chemicals companies ï this is in contrast to management who has guided investors to compare TPCG to stable industrial gas suppliers such as Praxair, Air Products and Airgas. **We believe the PE Buyers would project out-sized IRRs of 55%+ when using the correct multiples.**

  - We believe that projections being used for the core business and Project Phoenix are low-balled (similar to the most conservative sell-side estimate) and **are well below what management communicated to shareholders as recently as July 2012**.

  - Management incentive agreements have purposefully ónot been negotiatedôas of the time of the transaction to keep shareholders **ignorant about the significant mis-alignment of incentives between management and the shareholders**.

- Lastly, we believe, based on the preliminary proxy and discussions with our own MLP counsel, that there is little doubt that the cash flows generated from the C4 processing business (2/3 of current EBITDA) and those cash flows expected from the de-hydro projects are MLP-qualifying, providing another lever for shareholder value creation. **We believe that the projections / Exit Multiple should be adjusted upwards, reflecting the value of a fee-based processing business with MLP-qualifying income.**

Sandell intends to vote against the deal, encourages fellow shareholders to do the same and seeks to have the Company run a proper auction to maximize shareholder values.

SAMC Analysis of TPC Group Inc.

Process Was Flawed And Tainted By Self-Dealing; SC Failed to Negotiate a Go-Shop

- The significant number of unsolicited, incoming calls suggest **an uncontrolled, shadow auction** for the company over the course of nine months with the PE Buyers heavily favored given their accelerated access to the data room and negotiations. **Out of the 11 interested parties, 9 contacted TPCG in an unsolicited manner – this is highly unusual, and likely created an uneven playing field.** This reflects, we believe, management putting its self-interest ahead of the best interests of all shareholders.

- **Strategic bidders were not clearly encouraged in the process** ï despite strategic bidders being in the most likely position to offer the best price to shareholders. **Of the 6 strategic bidders, 4 had to contact TPCG in an unsolicited manner and only 2 accessed the data room** ï this also is highly unusual as strategic bidders have the most to gain from data room access. Given this haphazard process, it is particularly disheartening that a go-shop period was not negotiated to ensure the maximization of shareholder value.

- The Special Committee (SC) only discussed potential strategic bidders a **full 2 months after first contact from the PE Buyers and 4 parties having started due diligence** ï at one meeting, the SC determined to ñpostponeò negotiations with strategic bidders ñuntil more definitive bids were obtained from the financial buyersò, and a week later determined not to pursue a public auction due to ñroutine business contract negotiationsò and ñnegotiations [related to] the strategic growth projectsò. **This is not a credible rationale as target companies regularly hold controlled auctions while conducting contract negotiations.**

- Lastly, despite Perellaôs indication that the ñuniverse of potential strategic bidders was smallò, the **subsequent avalanche of strategic interest** (a majority of which was unsolicited) and the initial indication of another 20 potential strategic bidders plus more from the SC, we believe, **reflects the willful favoritism of the SC and the management to 'cash-out' and provide management with employment and upside as TPCG executes its growth plan privately**.

Bidder	Type	Solicited?	Initial Mention	NDA Signed
FR/SK	Financial	No	05-Dec-11	04-Jan-12
B	Financial	No	Dec-11	04-Jan-12
C	Financial	No	31-Jan-12	17-Feb-12
D	Financial	No	31-Jan-12	17-Feb-12
[J]	Financial	No	24-Aug-12	n/a
A	Strategic	No	Dec-11	04-Jan-12
F	Strategic	No	03-Apr-12	07-Jun-12
H	Strategic	No	May-12	n/a
I	Strategic	No	29-Jun-12	02-Jul-12
E	Strategic	Yes	24-Feb-12	n/a
G	Strategic	Yes	03-May-12	n/a

SAMC Analysis of TPC Group Inc.

Fairness Opinion Valuation Undervalues Company

- Fairness Opinions are valuation analyses that can be tailored considerably for a client by cherry-picking EBITDA figures, multiples and comparable figures to obtain the desired effect. **We believe that the Fairness Opinion for TPCG is considerably more egregious than most.** The most obvious faults are:
  - Using **publicly traded comps that are commodity chemical businesses**, while the management has repeatedly made the claim on public conference calls that the majority of TPCGôs cash flows are ôfee-basedô and not related to commodity prices;
  - Using LTM EBITDA (approximately $110m) vs 2013E ($160m) to emphasize the ôhighô multiple paid, **despite ample evidence that LTM EBITDA reflects reduced C4 volumes as a result of ethylene cracker turnarounds** which will not repeat. Also, the 2013E figures reflect service fee increases that have been discussed at length by management;
  - Using a **depressed LTM Exit Multiple range of 4.5x-5.5x** when the business is being taken private at a 7.7x trailing EBITDA multiple. Furthermore, this multiple does not consider the ôfee-basedô and MLP-qualifying nature of TPCG as of 2016;
  - Using a **9% interest rate** for the almost $682m in senior notes (in the LBO analysis), which is significantly above market for comparable notes given TPCGôs asset profile and currently low spreads and interest rates;
  - Using **July 24th and June 25th trading prices for the 'premium paid' analysis, notwithstanding the fact that TPCG traded near $40/share** between those dates and traded above $40/share for almost 2 months in 2012 and 2011. **Furthermore, TPCG closed at a high of $47.03/share as recently as March 2012.**

FO Analysis: Trading value			
Trading comparables - 2012 EBITDA	$ 27.30	$ 39.40	*5.0x-6.5x, reflecting commodity chemical comps*
Trading comparables - 2013 EBITDA	$ 31.73	$ 41.67	*4.5x-5.5x, reflecting commodity chemical comps*
DCF - Core Business	*$ 33.58*	*$ 43.87*	*4.5x-5.5x on LTM terminal value*
DCF - Project Phoenix	*$ (0.54)*	*$ 4.19*	*wide range of values with limited back-up*
DCF - Total	$ 33.04	$ 48.06	
Range of control premiums	20%	35%	*applied selectively to lows of stock price*

FO Analysis: Control premium value			
Precedent transactions - 2012 EBITDA	$ 31.32	$ 39.38	*5.5x-6.5x, primarily asset deals + forced sellers*
LBO Analysis	$ 36.33	$ 40.38	*5.5x terminal multiple, 9% interest rate*

SAMC Analysis of TPC Group Inc.

TPCG is a Fee-Based Processing Business Not a Commodity Chemical Business

- Management has spent significant effort in **explaining the fee-based nature of TPCG's business** (see comments below) and has also commented that **TPCG's processing, service and distribution business should be valued similarly to industrial gas companies such as Praxiar, Air Products and Airgas that trade in the 8x-10x EBITDA range.**

- Based on these comments and TPCGǒs underlying business, it is clear that its cash flows are not related to commodity prices and therefore TPCG should not be valued as a commodity chemical business. It is a processing business, **taking limited risk to the underlying price of butadiene (BD)**.

- We believe that the Fairness Opinion and several statements made in the background incorrectly characterize TPCG as a commodity chemical business to **intentionally dissuade potential bidders and hand the company to First Reserve and SK Capital as preferred bidders without maximizing shareholder value.**

Conference Call	CEO Comments
2Q12	'inherently stable services based business model generates consistent underlying earnings' 'resilience of our fee-based business model' 'stable underlying butadiene margins that are based on fixed fees per pound of BD processed'
1Q12	'inherently stable services based business' 'stable underlying butadiene margins that are based on fixed fees per pound on BD process' 'fees are independent of the absolute price of BD' 'our underlying earnings, the real measure of performance, are not impacted by BD price'
4Q11	'inherently stable fee-based business model and cost-plus-fee contracts' 'cash flow performance validates the stability of our business model' 'we have much or most of our [Performance Products] in contracts that are indexed' 'the majority, probably over 80% of our gross profit is protected in the sense that it's indexed to cost indices that link our product price with our feedstock cost in some way'
3Q11	'earn these fixed margins on every pound of BD that we move through our logistics and processing infrastructure, regardless of the price of BD' 'as the BD price falls, a significant amount of cash is freed up on working capital' 'our model...is very unique...very stable underlying model in terms of these fee structures, fix fees per pound and the cost plus pricing contracts'

SAMC Analysis of TPC Group Inc.

Projections For Core Business and Project Phoenix Are Low-Balled

- EBITDA estimates presented in the Fairness Opinion are near the estimates of the most bearish sell-side analyst; however, **they are noticeably lower than other sell-side estimates**.

- Furthermore, Fairness Opinion EBITDA estimates are well below long run estimates given by current management in October 2011 and communicated to various shareholders in July 2012. These differences most likely reflect the **changing motivation of management once an LBO is being contemplated.**

- **As an example, management is now talking down real values** - as evidenced by a sell-side research piece published by Macquarie on September 10th, 2012, stating **previously undisclosed information to encourage shareholders to vote for the current deal**. Some negative management comments from this note:

  - ñcapital cost required to restart its two offline de-hydro assets sum to a total greater than the market cap of TPC Group and more than 20% higher than our prior estimationò, and

  - ñissues with sourcing mixed C4s due to increased competitive pressure from underutilized C4 processors at integrated cracker operators are a real concern for 2H12 and 2013ò

- Lastly, there seems to be a discrepancy in TPCGõs unlevered free cash flow (UFCF) estimates. As shown below, UFCF for the Core TPCG business is significantly below what would be estimated using D&A and Maintenance Capex figures provided by management. **It is unclear what this $96m and $62m cash flow discrepancy in 2013 and 2014 could be; however, in our LBO analysis we have conservatively included these 'mystery' cash costs.**

Differences in EBITDA Estimates

Figures (mm)	2013	2014	2015	2016
Projections from FO	$159.4	$163.4	$178.4	$194.2
Dehydro EBITDA (1)	-	-	96.6	99.7
Total EBITDA	159.4	163.4	275.0	293.9
Macquarie EBITDA	149.0	193.8	-	-
OpCo EBITDA	170.9	239.4	331.8	407.5
TPCG estimates (2)	-	-	-	395.0

Differences in Unlevered Free Cash Flow (UFCF) Estimates

	2013	2014	2015	2016
UFCF from FO	$8.0	$45.0	$109.0	$115.0
Calculated UFCF (3)	104.4	107.0	116.7	127.0
Unallocated cash flow	96.4	62.0	7.7	12.0

(1) estimated from unlevered free cash flow estimates given in projections
(2) in Oct 2011, TPCG management estimated that long term EBITDA could be 2x-3x current levels of $158m, also reiterated this in July 2012 to shareholders
(3) using EBITDA estimates, $45m in D&A, 35% tax rate, $15m maint capex

SAMC Analysis of TPC Group Inc.

Even Using Low-Ball Projections, LBO Returns For PE Buyers Could Be Considerable

- Using given unlevered free cash flow estimates and Project Phoenix, **IRRs for the PE Buyers could be 32% to 56% at $40/share**:
  - Assumes **full 35% cash taxes although up to 80% of EBITDA in 2016 is most likely MLP-qualifying**;
  - **Does not include any upside from the 2nd de-hydro project ï** which is considered by some to be more valuable than the 1st de-hydro project;
  - **Includes $96.4m and $62.0m of ‘mystery’ cash costs** in 2013 and 2014;
  - Estimates cash balances at end of 2012 (at closing) and sources and uses of cash based on the Fairness Opinion and recent press releases from the company;
  - Targeting a maximum Debt + Pfds / EBITDA of 5.5x and coverage ratio of 1.5x of EBITDA less maintenance capex;
  - The High LBO price range reflects the maximum drawdown on the PE Buyers Equity Commitment of $423m.
- As in most valuations, the key determinant is the Exit Multiple figure ï using a range of 5.5x to 8.5x, the IRR increases substantially.
  - We believe that given the fee-based, processing nature of TPCGÕs cash flows plus the potential upside of those cash flows being MLP-qualifying **necessitates using an 8.5x Exit Multiple**.
  - The best comp for this Exit Multiple would be a discount multiple to industrial gas suppliers (PX, APD or ARG) or the EBITDA multiple for PetroLogistics MLP (PDH), a variable-dividend paying, de-hydro asset.

Cash on balance sheet at end of 2012	
Cash balance end of 2Q	$135.4
capex already spent on de-hydro as of 2Q	*9.5*
capex already spent on de-hydro as of 9/13/12	*25.0*
less: capex spent on de-hydro	(15.5)
less: expected dehydro capex in 4Q (from FO)	(40.0)
Cash balance at end of 2012	79.9
plus: operating cash flow 2H12	14.0
Cash balance at end of 2012	**93.9**

Sources and Uses of Cash for LBO	
Sources of cash	
Cash on balance sheet (from above)	$93.9
Debt financing - bridge with HY takeout	600.0
Debt financing - maximum drawn on revolver	50.0
Equity financing - maximum amount of $423m	305.6
Total sources	**1,049.5**
Uses of cash	
Shares purchased - $40/share	634.0
Debt refinancing - 8.75% senior notes	350.0
Premium paid to debt - tender at T+50	45.5
Other costs - deal fees & golden parachutes	20.0
Total uses	**1,049.5**

LBO returns based on FO UFCF Projections (1)

Exit EBITDA	**Purchase price of TPCG shares**			
	$40.00	**$42.50**	**$45.00**	**$47.50**
5.5x	**32%**	**28%**	**25%**	**22%**
6.5x	42%	37%	34%	30%
7.5x	49%	45%	41%	38%
8.5x	**56%**	**51%**	**47%**	**44%**

(1) assumes debt at closing all-in interest rate of 7%, debt / pfds used to finance de-hydro all-in interest rate of 15% with target max leverage of 5.5x D/EBITDA and coverage of 1.5x EBITDA less maintenance capex

SAMC Analysis of TPC Group Inc.

80% of TPCG's Income is MLP-Qualifying, Increasing Exit Valuation

- There is ample disclosure regarding the evaluation of TPCG as an MLP. **Based on our read of the preliminary proxy, the cash flows from the C4 business (2/3 of current EBITDA) are MLP-qualifying**. Furthermore, with PetroLogistics (PDH) as a public comparable, we also believe **all the EBITDA generated from the de-hydro projects will be MLP-qualifying**.

- Given the complexities surrounding structuring and developing an MLP structure (the pacing required to ódrop-downô assets into the MLP, the tax concerns as a result of the low tax basis of the assets, the expected capital projects in front of TPCG, etc.), the SC decided not to pursue the MLP option. **However, the PE Buyers will be able to take advantage of the MLP-qualifying nature of TPCG's cash flows through this hold period, away from the view of public shareholders**.

- We believe that the **Exit Multiple should reflect this significant change in the business** as MLP-qualifying income in an MLP structure is extremely valuable to other MLPs and can serve to reduce TPCGÕs cash tax costs and lower its cost of capital.

- PetroLogistics (PDH) would be the best comparable company to TPCG as an MLP. It processes propane into propylene and generates variable-dividend paying MLP-qualifying income. Other variable-dividend paying entities are fertilizer MLPs (shown below) as well as refining MLPs and other processors that have oil, natural gas, NGLs or crude C4 as a feedstock.

Variable Dividend MLPs				
	Market		Next Year	
	Capitalization		EV/EBITDA	P/E
De-Hydro Comp				
PETROLOGISTICS L	$	1,766	7.9x	8.4x
Variable-Paying Fertilizer Comps				
RENTECH NITROGEN	$	1,403	11.3x	12.6x
TERRA NITROGEN C	$	4,131	7.1x	13.5x (1)
CVR PARTNERS LP	$	1,881	12.3x	14.9x

(1) TNH uses LTM multiples as it has no IBES projections