Opportune

Idaho Department of Lands
ATTN: Michael Murphy,
Bureau Chief – Endowment Leasing
300 N. 6th St Suite 103
Boise, ID 83702

August 10, 2018

Dear Mr. Murphy:

The Idaho State Board of Land Commissioners ("Land Board") and the Idaho Department of Lands ("IDL") have entered into oil and gas leases on state endowment trust lands. IDL has the responsibility of administering trust lands on behalf of the Land Board to maximize revenue generation for specified beneficiaries. Lands and minerals owned by the State are leased to make money for those beneficiaries. Compared to other states, oil and gas leasing in the State of Idaho is currently a small component of land administration. The Idaho Legislature and the Land Board have adopted requirements for operators to provide royalty reporting to IDL. IDL has requested auditing services to assess whether royalties paid to state beneficiaries for oil and gas produced from wells on the state endowment trust lands are in compliance with the governing statutes, rules and leases and reflect accurate reporting made by the operator. IDL has engaged Opportune LLP ("Opportune") to perform a limited oil and gas lease audit of royalties paid to IDL from August of 2015 through December 2016 (collectively, "Period") including an analytical review of volume and payment reconciliations; an assessment of identified arms-length transactions; and documentation of any significant findings that may warrant further investigation. During the Period, one operator ("Operator") submitted royalty reports and payments for three producing wells under two state leases. Opportune has provided this report ("Report") as a summary of our limited audit.

The Land Board is the Lessor in two oil and gas lease agreements in which Alta Mesa Services, LP ("Alta Mesa") was the Operator for the Period. Alta Mesa is currently the largest producer in the State and was during the Period. Lease 0-01983 is 600 acres with a gross royalty of 12.5%, and lease 0-01996 is 40 acres with a gross royalty of 12.5%. Each lease was unitized into a 640 acre section resulting in net revenue interests of 11.71875% and .78125% for the two leases, respectively. During the Period, the State 1-17 was the single well operational on 0-01983, and production was only dry gas during the Period. During the Period, both the ML Investments 1-10 and the ML Investments 2-10 were productive wells, and each well produced condensate, residue gas, and natural gas liquids ("NGLs).

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Executive Summary

Opportune's scope of services included the following:

- Perform an analytical review of volume and payment reconciliations of the Period data set, and document significant differences that are pertinent to audited leases.
- Using best professional judgment, inform IDL of additional recommended out-of-scope work and estimated costs, such as a gas processing plant audit.
- Review Schematic Diagrams. The Auditor will request any necessary schematic diagrams for oil and gas operations from the Operator. The Auditor will review these schematic diagrams for appropriate completeness, field equipment, measurement points, custody points, and commingling points. The Auditor will identify any differences or necessary additions.
- Confirm that the raw and processed hydrocarbon sales points identified by the Operator represent appropriate arms-length transactions.
- Propose recommendations for additional auditing tasks beyond the scope of this limited oil and gas audit that would be beneficial to IDL and the beneficiaries given that a comprehensive oil and gas audit may not be financially justifiable due to the current low level of hydrocarbon production.

Opportune reconciled a schedule of royalties payable to IDL to payments submitted to IDL and performed analytical reviews of volumes and payment reconciliations. We noted that payments received were $58.61 lower than expected payments based on reporting to IDL from Alta Mesa during the Period. The difference can be requested from Alta Mesa though the amount is immaterial compared to total receipts.

Opportune reconciled volumes reported by Alta Mesa and noted Alta Mesa did not pay royalties on plant fuel volumes. While total plant fuel volumes were understated by approximately 17K MMBTU, the resulting understated royalties were approximately $107. Opportune was able to reconcile reported volumes to plant statements and purchaser statements from ARM Energy Management, LLC ("AEM"), the entity that markets production on behalf of Alta Mesa. Reported royalty volumes were actual physical volumes sold for condensate and NGLs. For residue gas, reported volumes were based on nominated monthly volumes rather than physical volumes delivered. Alta Mesa does not provide a reconciliation of imbalances between nominated volumes and produced volumes, but the sales volumes nominated were higher than delivered volumes by 2,516 MMBTU, resulting in IDL receiving approximately $90 more in royalty proceeds than it would have received based on actual volumes delivered.

The key identified issue is pricing. Alta Mesa contracted with AEM to market its product, but as AEM is the entity that is making the sales, Alta Mesa does not have the data necessary to prove that it is receiving market prices. AEM takes title of production volumes upon their entering the gas plant. AEM appears to meet the criteria as an End Purchaser. Opportune recommends formally requesting Alta Mesa to audit AEM as a means for proving that AEM is getting the best market price possible. We noted that no fees are being charged to Alta Mesa for the processing of products in the gas plant. With the audit of AEM, it is possible that AEM could prove that costs are being deducted from prices received. Even with the newly updated form lease, the issues identified related to pricing and transparency of counterparties with AEM may not be improved. Additional language may be needed to require Alta Mesa to provide additional disclosures regarding ultimate sales prices.

Background Information

The Report addresses payments received by IDL, volumes produced and sold, and prices realized by Alta Mesa. We have compared data provided by IDL with data provided by Alta Mesa. Opportune's main contact with Alta Mesa was Jessica Guiliza, Alta Mesa's Revenue Manager ("Guiliza"). Guiliza provided requested documents and answers to questions presented by Opportune.

Additionally, the entity that processed Alta Mesa's production on lease 0-01996 and the entity that marketed Alta Mesa's production on 0-01996 were affiliates or related parties with Alta Mesa. Both will be discussed in more detail in the Report. The use of affiliated parties within transactions is a regular practice in the oil and gas industry. Operators often own midstream facilities or utilize affiliates to market or purchase production in order to achieve additional economies of scale, but these related transactions can be a challenge to royalty holders as financial results are examined. Companies may divest these same businesses if they can achieve move favorable results by outsourcing or contracting these same services with third parties. One key recommendation is enhancing IDL's ability to protect itself from operators' use of affiliated entities. The goal for IDL should be to receive at least the same results as if the operator were utilizing or marketing to non-affiliated, third-party entities.

Northwest Gas Processing, LLC is the midstream entity that processes Alta Mesa's production. The following is a description of the relationship and transactions between Northwest Gas Processing, LLC and Alta Mesa per the December 31, 2016 form 10K. Both passages are included in Alta Mesa's footnote regarding related party transactions (see "Item 13. Certain Relationships and Related Transactions, and Director Independence" in Alta Mesa's form 10K):

"Midstream Asset Sale and Land Purchase

On December 31, 2014, we sold our interests in a partially constructed pipeline and gas processing plant at cost to Northwest Gas Processing, LLC ("NWGP") for $25.5 million cash and short-term note receivable of $8.5 million, while recording no gain or loss on the sale at December 31, 2014. The $8.5 million note receivable, dated December 31, 2014, bears interest at 8% per annum, interest payable only in quarterly installments beginning January 1, 2015, and matures on December 31, 2019. Immediately after the consummation of the transaction, NWGP's obligation under the $8.5 million promissory note was transferred to High Mesa Services, LLC, a subsidiary of High Mesa. On December 31, 2015, we repurchased a small portion of land originally sold to NWGP at cost of $0.7 million."

"NWGP Services Agreement

We are party to a services agreement dated January 1, 2016 with NWGP. Pursuant to the agreement, we agree to provide administrative and management services to NWGP relating to the midstream assets we sold to NWGP on December 31, 2014. During the year ended December 31, 2016 NWGP was billed for management services provided in the amount of approximately $0.1 million. High Mesa owns a controlling interest in NWGP."

Both of these passages reference High Mesa, described as follows:

"Partnership Structure
We are structured as a private partnership. Since our inception in 1987, we have funded exploration, development and operating activities primarily through cash from operations, contributions by our limited partners, borrowings under our senior secured credit facilities and proceeds from the issuance of senior unsecured notes.

Our partnership agreement currently provides for two classes of limited partners. Our Class A limited partners include our founder, Michael E. Ellis, and other parties. Our sole Class B limited partner is High Mesa, Inc. ("High Mesa") which has been funded through investments from HPS Investment Partners, LLC (formerly known as Highbridge Principal Strategies LLC) ("HPS") and Bayou City Energy Management LLC ("Bayou City") in exchange for 100% of the preferred stock in High Mesa."

Alta Mesa outsources its product marketing efforts to ARM Energy Management, LLC ("AEM"). The relationship with ARM is described in Alta Mesa's footnotes, but not in its "Item 13. Certain Relationships and Related Transactions, and Director Independence", and the following from the December 31, 2016 10K describes the relationship between Alta Mesa and ARM Energy Management:

"We sell the oil and natural gas from several properties we operate primarily through a marketing agreement with ARM Energy Management, LLC ("AEM"). We are a part owner of AEM at less than 10%. AEM markets our oil and natural gas and subsequently sells it under short-term contracts generally with month-to-month pricing based on published regional indices, with differentials for transportation, location, and quality taken into account. AEM remits monthly collections of these sales to us, and receives a 1% marketing fee. Our marketing agreement with AEM commenced in June 2013. The agreement will terminate in 2018, with additional provisions for extensions beyond five years, and for early termination. During the second half of 2013 and throughout 2014 to 2016, AEM marketed majority of our production from operated fields. Production from non-operated fields, the most significant of which were our Eagleville field in South Texas, and our Hilltop natural gas field in East Texas prior to their sale, was marketed on our behalf by the operators of those properties. Production from our interests in Eagleville was sold by the operator, Murphy Oil Corporation. We sold our remaining interests in Eagleville in the third quarter of 2015. See "Note 4 — Significant Acquisitions and Divestitures" in the accompanying notes to the consolidated financial statements included elsewhere in this report for additional information."

"For the year ended December 31, 2016, revenues marketed by AEM were $160.7 million, or 80% of total revenue excluding hedging activities."

"We believe that the loss of any of our significant customers, or of our marketing agent AEM, would not have a material adverse effect on us because alternative purchasers are readily available."

Alta Mesa's description of its relationship with AEM addresses its marketing of Alta Mesa's revenues in Oklahoma since Alta Mesa's significant revenue activities occur in that market. AEM also provides marketing services related to Alta Mesa's production in Idaho, and AEM markets all products produced in the Little Willow field. Alta Mesa describes its relationship with Alta Mesa, but does not appear to consider it as a related party, as Alta Mesa's ownership of AEM is less than 10%.

See Exhibit 1 for a graphical representation of Alta Mesa's partnership entities and the entities party to the marketing agreement with AEM.

In order to mitigate risks related to receiving less than its fair share of royalty proceeds due to operators taking advantage of affiliated transactions to pay less than market rates, the Land Board can address the use of affiliated transactions in subsequent leases. These matters have been addressed in other oil and gas jurisdictions around the country. The Land Board could include provisions to define affiliated transactions and provide a framework to ensure payments are as favorable as would be received in an arm's length transaction. Specifics may address both affiliated midstream costs and marketing arrangements. IDL's oil and gas attorney will be integral in drafting language that is acceptable to IDL and can be enforced prospectively, including providing additional audit rights and information requirements to the State and or IDL. See Exhibit 2 for samples of lease language related to these matters.

Royalty Payments Made by Alta Mesa

During the Period, Alta Mesa made the following payments to IDL based on the attached listing of payments by check and wire transfer provided by Alta Mesa to Opportune:

Accounts Payable Summary Check Register (CD3310)
Payee: IDAHO DEPARTMENT OF LANDS
ALTA MESA SERVICES, LP

Acct	Check No	Check date	Type	Check amount	Wire Xfer	Status
OPER	2065724	10/22/2015	AP	1,077.60		CLEARED 10/31/15
CDOP	844	11/24/2015	AP	1,863.39		CLEARED 11/30/15
CDOP	1834	12/29/2015	AP	2,143.64		CLEARED 01/31/16
CDOP	9789	7/14/2016	AP	6,726.10		CLEARED 07/31/16
UBFA	7072	8/25/2016	AP	1,571.84	WT	CLEARED 10/31/16
UBFA	7992	9/28/2016	AP	1,439.46	WT	CLEARED 10/31/16
UBFA	8514	10/28/2016	AP	1,372.35	WT	CLEARED 10/31/16
UBFA	9081	12/5/2016	AP	2,235.66	WT	CLEARED 12/31/16
UBFA	9590	1/3/2017	AP	1,305.62	WT	CLEARED 01/31/17
WFFA	619	2/2/2017	AP	1,778.08	WT	CLEARED 02/28/17
WFFA	1604	3/6/2017	AP	2,957.42	WT	CLEARED 03/31/17
Total Payments				24,471.16		

Note: The above schedule was provided by Alta Mesa and is a schedule of all payments during the Period.

Alta Mesa reported the following royalty payables by lease and commodity type as follows based on their royalty reporting requirements to IDL:

Production Month	Gas 0-01983	Gas 0-01996	Condensate 0-01996	NGLs 0-01996	Total Due	Associated Payment	Difference
Aug-15	$ 413.53	$ 512.16	$ 116.52	$ -	$ 1,042.20	$ 1,077.60	$ 35.40
Sep-15	314.56	853.45	632.82	73.97	1,874.81	1863.39	(11.42)
Oct-15	317.21	1,017.08	696.67	108.58	2,139.55	2143.64	4.09
Nov-15	275.38	531.25	335.82	92.60	1,235.05		
Dec-15	49.84	388.43	430.87	4.51	873.65		
Jan-16	255.89	989.72	409.63	-	1,655.24		
Feb-16	88.82	131.38	244.76	-	464.96		
Mar-16	65.06	63.76	493.75	-	622.56		
Apr-16	-	159.56	500.17	93.11	752.85		
May-16	57.06	290.29	646.38	231.36	1,225.10	6726.1	(103.31)
Jun-16	216.49	567.29	545.64	226.12	1,555.54	1571.84	16.30
Jul-16	267.82	654.01	364.06	153.50	1,439.38	1439.46	0.08
Aug-16	178.73	691.76	377.59	124.28	1,372.35	1372.35	(0.00)
Sep-16	217.23	1,184.21	664.83	169.40	2,235.68	2235.66	(0.02)
Oct-16	25.28	647.10	478.06	155.18	1,305.62	1305.62	(0.00)
Nov-16	-	855.39	597.69	325.00	1,778.08	1778.08	(0.00)
Dec-16	-	1,955.38	594.78	406.98	2,957.14	2957.42	0.28
Totals	$2,742.89	$11,492.23	$ 8,130.05	$ 2,164.60	$24,529.77	$24,471.16	$ (58.61)

Note: the above schedule is a reconciliation of royalties payable and payments made.

Payments are understated by $58.61 for the Period. This amount can be requested from Alta Mesa for the period.

Volumes Reported by Alta Mesa

In the two charts below, Alta Mesa has reported gross volumes and gross revenue values during the Period, respectively, for the two leases as follows:

	Residue Gas (MMCF)			Condensate (Barrels)		NGLs (Gallons)	
Month	State 1-17	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10
Aug-15	1,296	58,711	3,228	868	37	-	-
Sep-15	1,014	51,740	59,723	1,715	1,984	62,525	71,626
Oct-15	1,106	49,836	61,074	1,305	2,703	63,262	87,395
Nov-15	1,057	17,921	48,860	389	1,712	36,069	112,532
Dec-15	228	54,589	71,040	1,177	2,042	67,304	93,018
Jan-16	1,011	33,776	94,656	857	3,117	-	-
Feb-16	440	-	86,467	-	2,436	-	-
Mar-16	365	-	83,016	-	2,873	-	-
Apr-16	-	-	90,214	-	2,611	-	150,067
May-16	296	-	91,203	-	2,814	-	105,284
Jun-16	757	-	70,765	-	2,201	-	137,566
Jul-16	889	-	64,907	-	1,761	-	132,756
Aug-16	573	-	64,381	-	1,797	-	123,976
Sep-16	682	-	99,141	-	3,146	-	113,052
Oct-16	83	-	66,355	-	1,943	-	58,401
Nov-16	-	-	105,234	-	3,351	-	141,695
Dec-16	-	-	101,955	-	2,933	-	121,148
Total Reported	**9,797**	**266,573**	**1,262,219**	**6,311**	**39,461**	**229,160**	**1,448,517**

Note: The above schedule is all reported volumes by type (residue gas, condensate and NGLs) during the Period.

	Residue Gas Gross Value			Condensate Gross Value		NGLs Gross Value	
Month	State 1-17	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10
Aug-15	$ 3,528.78	$ 62,145.87	$ 3,410.15	$ 14,283.28	$ 631.09	$ -	$ -
Sep-15	2,684.27	50,708.72	58,532.95	37,549.94	43,450.96	4,775.36	4,693.25
Oct-15	2,706.90	58,497.13	71,688.51	29,043.16	60,131.14	5,486.22	8,412.51
Nov-15	2,349.92	18,248.12	49,751.75	7,958.39	35,027.16	2,587.90	9,264.69
Dec-15	425.29	21,604.28	28,115.09	20,164.53	34,986.60	375.02	202.38
Jan-16	2,183.60	33,316.38	93,368.33	11,306.75	41,125.34	-	-
Feb-16	757.91		16,817.18		31,329.02		-
Mar-16	555.15		8,161.08		63,199.60		-
Apr-16	-		20,424.08		64,022.12		11,918.14
May-16	486.95		37,156.73		82,737.24		29,613.99
Jun-16	1,847.37		72,612.92		69,841.76		28,943.98
Jul-16	2,285.36		83,713.55		46,599.15		19,647.83
Aug-16	1,525.14		88,545.15		48,331.35		15,907.61
Sep-16	1,853.68		151,579.42		85,098.69		21,683.34
Oct-16	215.71		82,829.37		61,191.71		19,862.87
Nov-16	-		109,490.02		76,504.67		41,599.85
Dec-16	-		250,288.44		76,132.33		52,093.53
Total Reported	**$ 23,406.03**	**$ 244,520.50**	**$ 1,226,484.72**	**$ 120,306.05**	**$ 920,339.93**	**$ 13,224.50**	**$ 263,843.97**

Note: The above schedule is all reported gross values by type (residue gas, condensate, NGLs) during the Period.

Lease 0-01996's allocated production is produced within the Little Willow production facility and is processed through the Highway 30 facility operated by NWGP. The Highway 30 facility processed production from the following wells during the Period:

ML 2-10
ML 1-10
ML 2-3
Kaufman 1-34
Kaufman 1-9 LT
Kaufman 1-9 UT
ML 1-11 LT
ML 1-11 UT
ML 1-3

See Exhibit 3 for a graph of the Little Willow plant schematic. Included are all meters used to account for all volumes in the system.

Opportune reviewed plant statements for the Period. We noted a reconciliation between gas and product entering the plant at the inlet, representing volumes at the wellhead, volumes delivered after deductions for plant fuel and accounting for changes in inventory and sales volumes after processing. Wet gas and condensate enter the plant, and both are processed with resultant deliveries of residue gas, condensate, and NGLs. We noted volumes for plant fuel which should qualify for royalty were as follows:

Production Month	Plant Fuel MMBTU	Gross	Net
9/30/2015	1,089.50	$ 1,042.54	$ 8.14
10/31/2015	748.80	687.18	5.37
11/30/2015	889.66	714.05	5.58
12/31/2015	1,459.20	562.89	4.40
1/31/2016	2,017.23	1,666.05	13.02
2/29/2016	1,422.08	259.52	2.03
3/31/2016	1,331.06	113.59	0.89
4/30/2016	1,442.13	293.67	2.29
5/31/2016	795.56	276.49	2.16
6/30/2016	858.17	768.14	6.00
7/31/2016	880.92	998.14	7.80
8/31/2016	901.36	1,076.94	8.41
9/30/2016	752.61	993.33	7.76
10/31/2016	478.16	559.05	4.37
11/30/2016	993.46	884.94	6.91
12/31/2016	1,327.04	2,785.30	21.76
	17,386.94	$13,681.81	$ 106.89

Note: The above schedule is monthly plan fuel MMBTU volumes, gross values and net values during the Period. Amounts were obtained from the monthly plant statements.

Resultant plant fuel recoveries were calculated utilizing the residue gas rate for the associated production month.

Sales of condensate and NGLs are based on actual volumes sold. Production volumes were sent or piped into the Highway 30 facility, processed and then stored in tanks until sold. Sales volumes could also include inventory balances from prior months.

NWPG processes and AEM markets NGLs by product (ethane (C2), propane (C3), iso butane (IC4), normal (NC4), natural gasoline (C5+)). Based on metering of gas and condensate at the well, NWPG allocates individual products to each well. See sample below of June 2016 allocation of NGL gallons by product:

June 2016 NGLs by Product & Well NGL Total by Product Percentage
(Amounts in Gallons)

	Well Name						
Product	Kauffman 1-34	Kauffman 1-9 LT	ML 1-11 LT	ML 1-11 UT	ML 1-3	ML 2-10	ML 2-3
Ethane	11,311	4,193	7,266	10,509	20,354	12,107	7,558
Propane	53,996	15,517	22,422	29,943	64,914	38,467	24,232
Isobutane	32,540	7,610	10,583	13,475	31,282	18,699	11,799
Normal Butane	51,989	12,981	18,532	23,422	55,466	33,216	20,781
Natural Gasoline	55,820	11,476	18,271	22,100	57,210	35,163	21,390
Total Gallons	205,655	51,778	77,074	99,449	229,225	137,652	85,760
Ethane	5.5%	8.1%	9.4%	10.6%	8.9%	8.8%	8.8%
Propane	26.3%	30.0%	29.1%	30.1%	28.3%	27.9%	28.3%
Isobutane	15.8%	14.7%	13.7%	13.5%	13.6%	13.6%	13.8%
Normal Butane	25.3%	25.1%	24.0%	23.6%	24.2%	24.1%	24.2%
Natural Gasoline	27.1%	22.2%	23.7%	22.2%	25.0%	25.5%	24.9%
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Above schedule is a sample month (June 2016) NGL gallons by product and percentage of gallons by product.

Reported residue gas volumes are based on delivered thousand cubic feet (mmcf) volumes at the plant. We reconciled reported volumes to volumes delivered as follows:

Month	Reported 1-10 Residue Gas	Delivered 1-10 Residue Gas	Difference Residue Diff	Reported 2-10 Residue Gas	Delivered 2-10 Residue Gas	Difference Residue Diff
Sep-15	51,740	51,739	1	59,723	59,725	(2)
Oct-15	49,836	49,672	164	61,074	60,769	305
Nov-15	17,921	17,866	55	48,860	48,703	157
Dec-15	54,589	54,589	0	71,040	71,040	0
Jan-16	33,776	33,776	0	94,656	94,656	0
Feb-16				86,467	86,467	0
Mar-16				83,016	83,021	(5)
Apr-16				90,214	90,217	(3)
May-16				91,203	91,214	(11)
Jun-16				70,765	70,768	(4)
Jul-16				64,907	64,994	(87)
Aug-16				64,381	64,581	(200)
Sep-16				99,141	99,159	(19)
Oct-16				66,355	66,405	(50)
Nov-16				105,234	105,243	(9)
Dec-16				101,955	102,041	(86)
Total Variance	**207,862**	**207,641**	**221**	**1,258,991**	**1,259,004**	**(13)**

Note: The schedule above is a reconciliation of reported residue gas volumes versus delivered volumes per the monthly gas plant statements during the Period.

Reported gas volumes are higher than statement volumes for the Period.

Reported condensate and NGL volumes are based on sold volumes. Volumes are delivered to the plant and placed in tanks until they are sold.

	Reported Volumes				Statement Values				Difference			
	Condensate (Barrels)		NGLs (Gallons)		Condensate (Barrels)		NGLs (Gallons)		Condensate (Barrels)		NGLs (Gallons)	
Month	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10	ML Investments 1-10	ML Investments 2-10
Sep-15	1,715	1,984	62,525	71,626	1,715	1,984	62,525	71,626	0	(0)	0	(0)
Oct-15	1,305	2,703	63,262	87,395	1,091	2,220	59,826	81,263	214	483	3,436	6,132
Nov-15	389	1,712	36,069	112,532	339	1,525	34,699	108,164	50	187	1,370	4,368
Dec-15	1,177	2,042	67,304	93,018	1,177	2,042	67,304	93,018	(0)	(0)	0	0
Jan-16	857	3,117			857	3,117			0	0	-	-
Feb-16		2,436				2,436			-	(0)	-	-
Mar-16		2,873				2,880			-	(7)	-	-
Apr-16		2,611		150,067		2,615		150,120	-	(4)	-	(53)
May-16		2,814		105,284		2,829		104,803	-	(15)	-	482
Jun-16		2,201		137,566		2,211		137,652	-	(10)	-	(85)
Jul-16		1,761		132,756		1,902		134,818	-	(141)	-	(2,062)
Aug-16		1,797		123,976		2,074		128,795	-	(277)	-	(4,819)
Sep-16		3,146		113,052		3,181		113,305	-	(35)	-	(253)
Oct-16		1,943		58,401		2,205		59,294	-	(262)	-	(893)
Nov-16		3,351		141,695		3,376		141,859	-	(25)	-	(163)
Dec-16		2,933		121,148		3,051		122,542	-	(117)	-	(1,394)
Total Reported	**5,443**	**39,424**	**229,160**	**1,448,517**	**5,179**	**39,650**	**224,354**	**1,447,258**	**264**	**(225)**	**4,806**	**1,258**

Note: The above schedule is a reconciliation of reported sales volumes of condensate and NGLs versus delivered condensate and NGL volumes during the Period.

Reported volumes are higher than statement volumes for both condensate and NGLs. Additionally, we noted that in January – March, 2016, no NGL volumes (and associated royalties) were reported to the State for NGLs as a result of total NGL sales value being negative. This is appropriate as no cash receipts are received by Alta Mesa related to NGLs.

Rather than deduct the NGL value from residue gas, Alta Mesa paid royalties only for condensate and residue gas. Royalties are calculated based on the accumulated NGL monthly balance rather than charged to individual plant product. A summary of NGLs for January – March are as follows:

Product	Jan-16			Feb-16			Mar-16		
Ethane	31,721	$ (0.415)	$(13,176.90)	17,242	$ (0.424)	$ (7,317.50)	23,127	$ (0.424)	$ (9,796.60)
Propane	120,795	$ (0.255)	(30,742.33)	70,577	$ (0.220)	(15,534.00)	141,170	$ (0.150)	(21,175.50)
Isobutane	56,859	$ (0.018)	(1,029.15)	32,642	$ 0.050	1,635.36	65,649	$ 0.026	1,693.74
Normal Butane	103,220	$ (0.091)	(9,403.34)	60,821	$ (0.075)	(4,579.82)	118,565	$ (0.065)	(7,683.01)
Natural Gasoline	106,241	$ 0.171	18,124.71	63,842	$ 0.134	8,535.68	121,947	$ 0.286	34,840.26
Totals	418,836	$ (0.086)	$(36,227.01)	245,124	$ (0.070)	$(17,260.28)	470,458	$ (0.005)	$ (2,121.11)
Allocated NGLs									
ML 2-10	147,579	$ (0.090)	$(13,282.11)	75,623	$ (0.070)	$ (5,293.61)	101,311	$ (0.003)	$ (253.28)
ML 1-10	49,818	$ (0.087)	(4,319.22)						

Note: The above schedule represents three months of NGL volumes and values which yielded negative values. For IDL the negative values resulted in no royalties being paid for NGL volumes during the indicated months.

We noted that AEM has provided negative pricing for Ethane for all months during the Period. Prices range from ($.2124)/gallon in December 2016 – ($.4275)/gallon in December 2015.

Pricing

Key current leasing provisions related to pricing are as follows for the subject leases during the Period:

- Oil Royalty Calculation. When paid in cash, the royalty shall be calculated upon the reasonable market value of the oil at the well which shall not be less than the price actually paid or agreed to be paid to the lessee at the well by its purchaser; in no event shall the royalties be based upon a market value at the well less than the posted price in the field for such oil, or upon a market value at the well less than the prevailing price received by other producers in the field for oil of like grade and gravity at the time such oil is run into pipelines or storage tanks.
- Gas royalty calculation. On gas, including casinghead gas or other gaseous substances, the royalty shall be calculated upon the reasonable market value at the well or on the price received by lessee at the well, whichever is greater, of all gas produced and saved from the leased premises. Where gas is sold under a contract that has been approved by the State, the reasonable market value of such gas for determining the royalty payable shall be the price at which such gas is sold under the contract; provided, however, that no approval by the State of the terms of any such agreement shall operate to make the State a party thereto or obligates it.

The following are realized prices by product and by lease during the Period.

	Lease 0-01996			Lease 0-01983
	Condensate	Gas	NGL	Gas
Production Month	Per BBL	Per MMBTU	Per Gallon	Per MMBTU
Sep-15	21.90	0.96	0.07	2.65
Oct-15	22.25	0.92	0.09	2.45
Nov-15	20.46	0.80	0.08	2.22
Dec-15	17.13	0.39	0.00	1.87
Jan-16	13.19	0.83	(0.09)	2.16
Feb-16	12.86	0.18	(0.07)	1.72
Mar-16	22.00	0.09	(0.00)	1.52
Apr-16	24.52	0.20	0.08	
May-16	29.40	0.35	0.25	1.64
Jun-16	31.73	0.90	0.21	2.44
Jul-16	26.46	1.13	0.15	2.57
Aug-16	26.90	1.19	0.13	2.66
Sep-16	27.05	1.32	0.20	2.72
Oct-16	31.50	1.17	0.34	2.60
Nov-16	21.87	0.89	0.29	-
Dec-16	26.88	2.10	0.42	-

Note: The above schedule is a listing of realized prices by product during the Period.

Opportune discussed pricing with Guiliza. Opportune noted prices were generally low across the board for lease 0-01996 for all products. See chart below comparing realized prices to various indices (for oil, Rocky Mountain crude is the closest index, and for gas, Kingsgate and the Alberta are the closest indices):

	Oil Prices				Natural Gas Prices					
	Cushing, OK WTI Spot Price FOB (Dollars per Barrel)	Europe Brent Spot Price FOB (Dollars per Barrel)	Rocky Mountain Crude Oil First Purchase Price Historical Data	Reported Crude Price	Natural Gas Cost, as Delivered ($/Mcf)	U.S. Natural Gas Pipeline Imports Price (Dollars per Thousand Cubic Feet)	Henry Hub Natural Gas ($/mmbtu)	Kingsgate (ID) (Hub Sumas) ($/mmbtu)	Alberta (Hub AECO) ($/mmbtu)	Reported RES
Source	Thomson Reuters:	Thomson Reuters:	EIA	Alta Mesa	Langley	EIA	EIA	October 2015 final North American Market Gas-trade (NAMGas) Model	October 2015 final North American Market Gas-trade (NAMGas) Model	Alta Mesa
Sep-15	45.48	47.62	36.94	21.90	3.00	2.49	2.66	2.47	2.45	0.98
Oct-15	46.22	48.43	38.92	22.25	2.91	2.37	2.34	2.54	2.51	1.17
Nov-15	42.44	44.27	35.76	20.46	2.72	2.19	2.09	2.54	2.51	1.02
Dec-15	37.19	38.01	30.01	17.13	2.41	2.13	1.93	2.86	2.83	0.40
Jan-16	31.68	30.7	24.42	13.19	2.67	2.42	2.28	3.10	3.06	0.99
Feb-16	30.32	32.18	23.93	12.86	2.25	2.12	1.99	3.21	3.18	0.19
Mar-16	37.55	38.21	30.86	22.00	2.26	1.55	1.73	2.92	2.88	0.10
Apr-16	40.75	41.58	34.19	24.52		1.51	1.92	2.96	2.93	0.23
May-16	46.71	46.74	39.74	29.40	2.41	1.44	1.92	3.17	3.13	0.41
Jun-16	48.76	48.25	42.95	31.73	2.47	1.76	2.59	3.10	3.07	1.03
Jul-16	44.65	44.95	39.67	26.46	2.83	2.26	2.82	3.17	3.13	1.29
Aug-16	44.72	45.84	39.22	26.90	2.89	2.29	2.82	3.23	3.20	1.38
Sep-16	45.18	46.57	39.42	27.05	3.38	2.42	2.99	2.98	2.95	1.53
Oct-16	49.78	49.52	44.37	31.50	4.75	2.5	2.98	3.05	3.01	1.25
Nov-16	45.66	44.73	40.1	22.83		2.41	2.55	3.02	2.99	1.04
Dec-16	51.97	53.29	45.73	25.96	4.05	3.31	3.59	3.38	3.34	2.45

Note: The above schedule is a listing of oil (condensate) and residue gas prices by index price and then compared to the Alta Mesa realized price during the Period.

One critical question raised by IDL concerns whether Alta Mesa treating or identifying ARM as an "End Purchaser" as defined in Idaho Code 47-310(6) (End Purchaser - means a third party, arms-length purchaser of oil, gas or condensate that is ready for refining or other use, or a third party, arms-length purchaser of other fluid or gaseous hydrocarbons that have been separated in a processing facility). In this case, it appears that AEM is an End Purchaser given that title changes to AEM as volumes enter the gas processing plant. Further, AEM agrees to the realized prices and sells to the parties who take the final processed products.

AEM provides marketing services including finalizing transactions with sale counterparties and setting prices. Guiliza stated that Alta Mesa has the right to audit AEM to determine if prices are below market. Opportune suggests that IDL utilize its lease provisions and existing rules and statutes to encourage Alta Mesa to audit AEM in order for Alta Mesa to satisfy its obligations to provide proof of market value as defined in the *Rules Governing Oil and Gas Leasing on Idaho State Lands*. Opportune also suggests that future leases require these audits and require operators to provide third party sales information to IDL. IDL retains the option to market on their own behalf and take product in kind, but given the relative low volumes, it is unlikely IDL would recognize benefits outweighing the costs of marketing.

Opportune noted that volumes and values on the producer statements from AEM match the sales quantities on the plant statement. Our understanding is that plant statement sales volumes are provided from AEM data rather than separate plant sales meters. Opportune also noted that no plant fees are shown on any of the plant statements during the period. These could include processing fees, gathering fees, dehydration fees, or transportation. In general, Opportune would expect these fees to be shown if they are being charged. Based on discussion with Guiliza and with NWGP, none of these fees are charged to Alta Mesa. Opportune requested the service contract between Alta Mesa and NWGP and were told that there is no service agreement. In light of the low commodity prices received, we believe an audit of AEM can determine if these fees are being absorbed by seller, and, therefore, recharged to IDL.

Opportune was able to review the contract between AEM and Alta Mesa. AEM was contracted to market on behalf of Alta Mesa. There were no clauses requiring minimum volumes or dollar amounts, and there were no price parameters such as indices or basis differentials, nor were there any fees charged save for a per unit marketing fee ($.25/bbl for condensate, $.025/MMBTU for gas) which was not charged to the State nor deducted from royalties paid to the State. AEM is required to provide a monthly statement to Alta Mesa. We reviewed the AEM monthly statements for gas, condensate, and NGLs and noted marketing fees being charged to Alta Mesa as directed in the contract. Additionally, Opportune noted that these marketing fees were not deducted from the gross revenues serving as the basis of royalties being paid to IDL. See Exhibit 4 for sample of statements for a single production month (September statement related to August production).

AEM sells residue gas based on nominated (scheduled) MMBTUs rather than actual delivered volumes, which results in a monthly imbalance of sold volumes versus produced volumes. Opportune inquired about the status of the imbalance as the monthly payable/receivable is not accounted for on either the plant statement or the purchaser statement provided by AEM on a monthly basis. Opportune inquired with Guiliza, and we were told that imbalances are not tracked on a formal basis. Jessica said that some months the variance is higher, and some months the variance is lower. We noted the following residue gas imbalance values for the Period:

	ML 1-10			ML 2-10				
Month	Gas Volume Delivered	Gas Volume Sold	Difference	Gas Volume Delivered	Gas Volume Sold	Difference	Residue Sales Price	Variance
Sep-15	58,815.02	52,992.00	(5,823.02)	67,893.00	61,171.22	(6,721.78)	0.96	(12,004.12)
Oct-15	56,494.73	63,532.62	7,037.89	69,116.75	77,727.04	8,610.29	0.92	14,360.41
Nov-15	20,275.74	22,665.83	2,390.09	55,273.42	61,788.99	6,515.57	0.80	7,147.75
Dec-15	61,779.47	56,005.55	(5,773.92)	80,397.75	72,883.76	(7,513.99)	0.39	(5,125.84)
Jan-16	38,418.36	40,338.95	1,920.59	107,666.49	113,048.87	5,382.38	0.83	6,031.60
Feb-16				98,490.84	92,153.96	(6,336.88)	0.1825	(1,156.42)
Mar-16				94,628.48	95,641.88	1,013.40	0.09	86.48
Apr-16				102,959.30	100,299.40	(2,659.90)	0.20	(541.65)
May-16				103,907.58	106,926.60	3,019.02	0.35	1,049.22
Jun-16				80,681.63	81,127.75	446.12	0.90	399.32
Jul-16				73,920.22	73,981.17	60.95	1.13	69.06
Aug-16				73,401.67	74,339.63	937.96	1.19	1,120.67
Sep-16				113,548.52	114,867.37	1,318.85	1.32	1,740.68
Oct-16				76,109.20	70,898.79	(5,210.41)	1.17	(6,091.82)
Nov-16				120,996.76	122,927.44	1,930.68	0.89	1,719.78
Dec-16				117,625.24	119,348.51	1,723.27	2.10	3,616.95
Gross Value	**235,783.32**	**235,534.95**	**(248.37)**	**1,436,616.85**	**1,439,132.38**	**2,515.53**		**12,422.08**
Net Value								**88.97**

Note: The above schedule is a listing of imbalance volumes comparing nominated volumes to delivered volumes, and the resulting value difference is IDL receiving $88.97 more than it would have received based on actual delivered volumes.

During the Period, IDL received $88.97 more than it would have received based on actual deliveries. Using nominated volumes is an acceptable practice in the oil and gas industry, but operators keep track of the imbalances to ensure that all parties are receiving full value based on produced volumes.

Change of Lease Form

Since the initiation of the audit of the payments related to the Period, IDL has revised its oil and gas lease template regarding arm's length transactions. IDL has requested Opportune to review and provide comments about whether the new form addresses issues that have been identified in the Report.

IDL defines an "Arm's-Length Transaction" as "a contract or agreement between Lessee and independent persons who are not affiliates and who have opposing economic interest regarding the contract. To be considered Arm's Length for any Production month, a contract must satisfy this definition for that month, as well as the date on which the contract was entered into." Further, IDL appears to require transactions to be arm's length. However, what is not addressed is what happens if the transaction does not meet the requirements. AEM is a third party that is in the business of marketing oil and gas production on behalf of operators across the United States. There is a contract between AEM and the Alta Mesa regarding the marketing of Idaho production. Alta Mesa owns a less than 10% interest in AEM. AEM also markets Oklahoma production for Alta Mesa. What is not clear is whether economic interests are opposing in this case. What will happen if this transaction is not arm's-length? The consequences are not clear.

Summary of Findings

Opportune reviewed data provided by IDL and Alta Mesa during the Period. The Report addresses royalties and volumes reported to IDL. The Report also addresses pricing and the entities that are providing midstream processing services of the Operator's production, NWGP, and the third- party marketing company that the Operator has hired to market on its behalf, AEM. The key issue is a lack of transparency of pricing of condensate, residue gas and NGLs. Realized prices are low to area benchmarks, and there is a lack of readily available market data. Opportune discussed this issue with Alta Mesa. Alta Mesa acknowledged that they have royalty rights in their contract with AEM to help ensure that they are receiving market pricing, but these rights have not been exercised. Opportune noted that no costs are being charged to Alta Mesa by NWGP, and Alta Mesa's representative has stated that there is no contract between Alta Mesa and NWGP. Opportune believes that discussions between IDL and Alta Mesa should occur to set expectations that Alta Mesa will take steps to ensure that it is receiving market value pricing, so Alta Mesa can comply with IDL rules related to disposition and market data that operators should have available to IDL. IDL has provided a new lease form for future lease transactions. IDL has defined an "arms-length transaction', but IDL may not have addressed the consequences when transactions are not at arms-length.

Volumes matched between AEM, NWGP, and volumes reported to IDL. The one exception noted was NGLs for the production months January through March 2016. Alta Mesa reported no sales volumes during these three months. The aggregate sales value of NGLs was a negative value, so no royalty was paid. As no royalty was paid, no volumes were reported. Opportune noted that Alta Mesa did not pay IDL for its share of plant fuel, but the net royalty calculated was approximately $105 during the Period.