

# Yukon Mineral Exploration Program: 2016-17 Update

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Torgerson, D., 2017. Yukon Mineral Exploration Program: 2016-17 Update. *In: Yukon Exploration and Geology Overview 2016*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 35-41.

## PROGRAM SUMMARY

The Yukon Mineral Exploration Program (YMEP) is a funding program, administered by the Yukon Geological Survey (YGS), that is designed to support individual prospectors, partnerships and companies by providing a portion of the risk capital required to locate, explore and develop mineral occurrences in Yukon. YMEP funding has consistently demonstrated its impact as an effective economic incentive by supporting exploration work that has led to numerous discoveries, which in turn, have provided significant long term economic benefits to the territory.

YMEP funding supports placer and hardrock exploration projects by reimbursing a percentage of approved exploration expenditures. Funding is merit-based; a panel of geologists evaluate submissions using a ranking system designed to score a range of criteria, quantifying the quality of the target, the proposal, the work plan, and the applicant's previous YMEP performance. This scoring system is available from our website at [www.geology.gov.yk.ca/ymep.html](http://www.geology.gov.yk.ca/ymep.html).

As in previous years, the 2016 program comprised three modules with different levels of funding available (Table 1).

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**Table 1.** Summary of YMEP program guidelines. Please reference YMEP guidebook or [www.geology.yk.ca/ymep.html](http://www.geology.yk.ca/ymep.html) for more detailed information.

<b>YMEP 2016 At A Glance</b>			
	<b>Grassroots</b>	<b>Focused Regional</b>	<b>Target Evaluation</b>
<b>Funding</b>	max \$15 000	max \$25 000	max \$40 000
<b>Reimbursement rate</b>	up to 100% of eligible expenses	up to 75% of eligible expenses	up to 50% of eligible expenses
<b>Scope of work</b>	to generate new targets	to generate new targets and advance existing ones	to evaluate and advance already known targets
<b>Who is it for</b>	individual prospectors only (no companies nor anyone working on behalf of a company)	prospectors, companies, partnerships	prospectors, companies, partnerships; projects with total exploration expenditures less than \$300 000
<b>Work to proceed on</b>	on claims, leases, or crown land	on claims, leases, or crown land	on claims, leases, coal exploration licenses, or quarry leases, not crown land
<b>Advance of funds</b>	no advance	no advance	no advance
<b>Work requirements</b>	minimum 30 person-days in field, daily log and final technical report	no constraints on time in field, final technical report	no constraints on time in field, final technical report
<b>Holdback/reports</b>	15% of funds will be held back until submission of final reporting requirements		
<b>Reporting deadlines</b>	Project proposal: March 31, Status Report: September 30, Final Financial Report and Final Summary/Technical report: January 31 of following calendar year		
<b>Confidentiality</b>	reports will be kept confidential for 5 years	reports will be kept confidential for 2 years	
<b>Module-specific eligible expenses</b>	applicant cannot draw wages but wages for one assistant are eligible	n/a	road building costs up to 25% of YMEP contribution if pre-approved, drilling
<b>Eligible expenses</b>	conventional exploration work, assays, shipping, wages (applicant not eligible in grassroots module), WCB, contracts, equipment rental, daily field expenses, fuel, claim staking, reclamation, limited physical work		
<b>Staking</b>	staking costs up to 20% of eligible contribution		
<b>Travel</b>	travel within Yukon (truck, helicopter, etc.) up to 25% of eligible contribution		
<b>Reimbursement rate guidelines</b>	Expenses reimbursed according to YG guidelines. Private and commercial rates are provided. Private rates for heavy equipment are 75% of commercial rate as approved by YG.		
<b>Non-eligible expenses</b>	GST, recording fees, management fees, costs of applying for permits or licenses, project planning and compilation, legal fees, promotional expenses, transportation outside Yukon, underground work, preparation for mining, mining, acquisitions, repairs		
<b>Compliance</b>	applicants must ensure that all required permits, licenses and authorizations are in place and that their work programs satisfy existing laws and regulations		

## UPDATE FOR 2016

Late in 2015, Yukon government recognized that economic conditions in 2016 were likely to continue to be challenging for the exploration sector, and so maintained the enhanced level of YMEP funding (\$1.4M) for a third year in a row. As expected, interest in the 2016 program was strong, with YGS receiving 100 applications seeking nearly \$2.9M.

A total of fifty-seven applicants were offered funding in 2016. Forty-two of the funded applications were for hardrock exploration projects (eight under the Focused Regional module and thirty-four under Target Evaluation); and fifteen placer applications were funded (all Target Evaluation). The majority of unfunded applications were considered eligible for funding, but budget constraints precluded them receiving support. The success rate for funding over the last seven years is shown in Table 2; the enhanced funding for this year allowed a higher than average success rate.

Figure 1 shows the locations of YMEP projects that were funded in 2016. The majority of placer projects (ten) were centered in the Klondike placer district, with two projects in the Mayo/Keno area, two in the Mt Nansen area and one project in the Livingstone area. Hardrock projects were fairly evenly distributed throughout the territory. Gold was the most sought-after commodity of hardrock projects, with twenty-nine proponents exploring for

structurally-controlled, epithermal, Carlin style, intrusion related and orogenic gold. Other targets included vein-hosted silver (two), porphyry copper (five), VMS style mineralization (two), jade (one), and magmatic massive sulphide copper/nickel/PGE prospects (three).

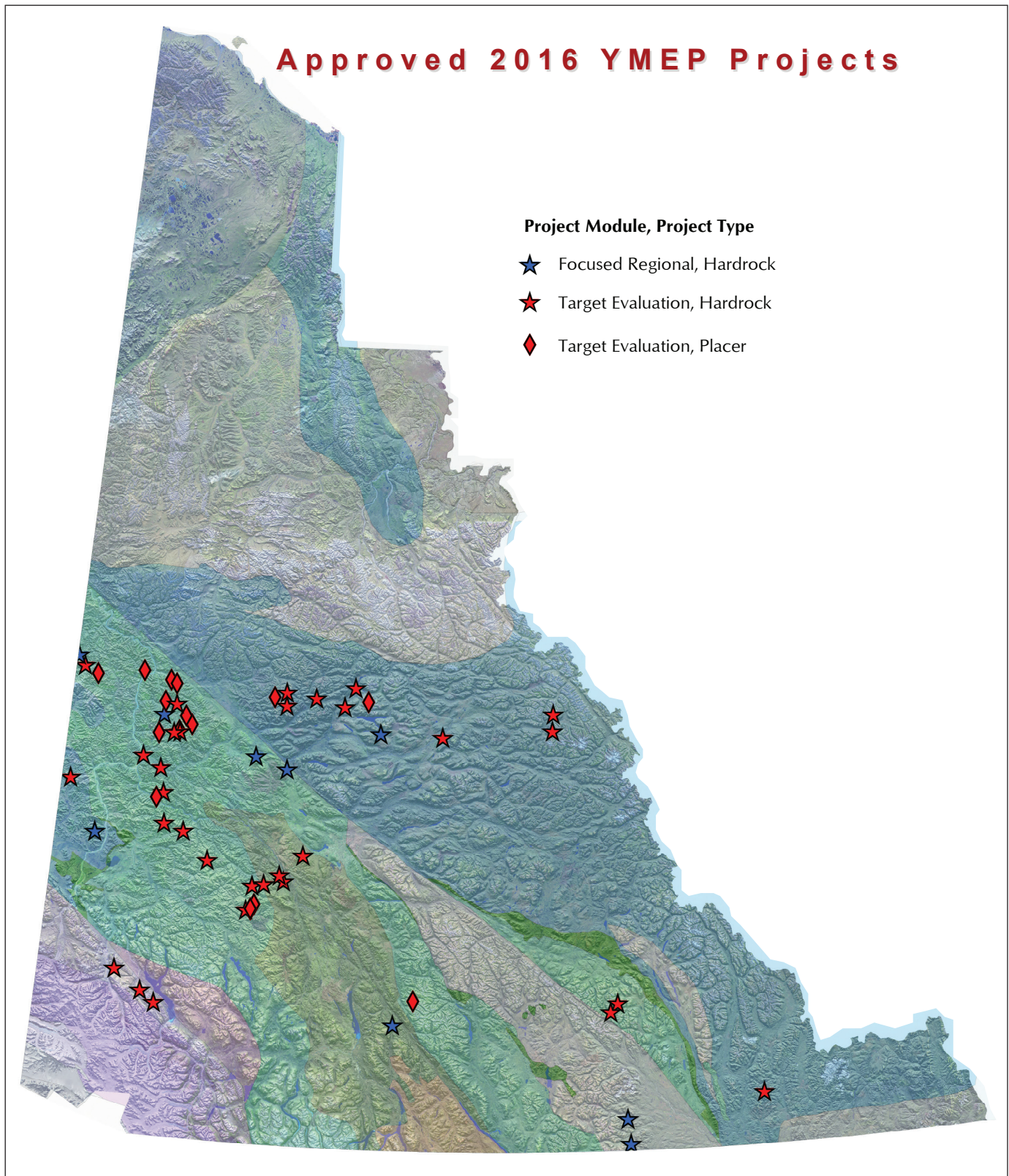
Twenty-nine exploration projects focused on soil/silt sampling and prospecting/geological mapping; six undertook ground-based or airborne geophysical surveys; twenty-one involved drilling and/or trenching; and two undertook hand shafting.

In 2016, hardrock projects accounted for 74% of the successful applications and placer projects accounted for the remaining 26%. Individual prospectors and private companies secured 69% of available funds, while public junior mining/exploration companies received 31% of the funds. The breakdown between the different modules and the demographics of the applicants over the past three years are outlined in Table 3. Over this period, the funding split between placer and hardrock sectors has been fairly consistent. The biggest change has been the increase in the share granted to individuals, from 30% in 2014 to 39% this year. This increase was at the expense of funding to publicly-traded companies.

To date, most 2016 YMEP projects have been successfully completed and preliminary results suggest there are several potentially significant discoveries resulting from the work.

**Table 2.** Summary of total YMEP funding, application numbers, and module funding levels for fiscal years 2010-11 through 2016-17.

Historical funding	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
available funding	\$1.67M	\$570 000	\$570 000	\$1.17M	\$1.4M	\$1.4M	\$1.4M
no. of applications	165	83	79	81	111	103	100
approved projects	83	34	29	55	51	62	57
max. funding level grassroots	\$15 000	\$15 000	\$15 000	\$15 000	\$15 000	\$15 000	\$15 000
max. funding level focused regional	\$25 000	\$15 000	\$15 000	\$15 000	\$25 000	\$25 000	\$25 000
max. funding level target evaluation	\$50 000	\$25 000	\$25 000	\$35 000	\$50 000	\$40 000	\$40 000



**Figure 1.** Locations of approved YMEP exploration projects for 2016.

**Table 3.** Allocation of YMEP funds between sectors and funding for fiscal years 2014-15 through 2016-17.

	2014-15		2015-16		2016-17	
Approved projects	# of approved projects	% of approved funding	# of approved projects	% of approved funding	# of approved projects	% of approved funding
approved placer	14	22%	15	28%	15	26%
approved hardrock	37	78%	47	72%	42	74%
<b>total projects approved</b>	55		62		57	
prospectors/ individuals	20	30%	24	34%	24	39%
private companies	12	29%	21	32%	16	30%
public companies	19	41%	17	34%	17	31%

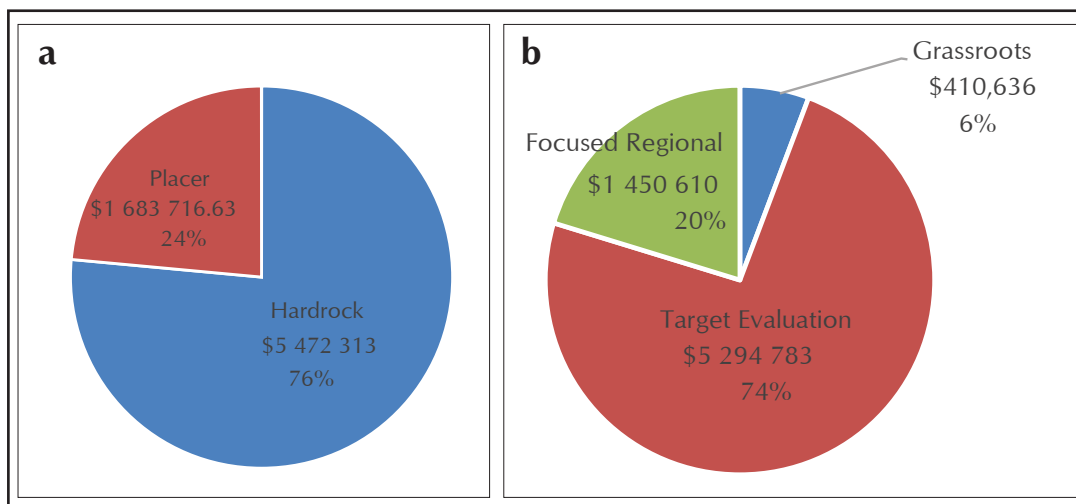
## YMEP PROGRAM REVIEW

In 2014, YGS undertook a client survey to measure how applicants perceive the program. A total of 67 responses were received from both successful and unsuccessful applicants. Responses indicated that the program has a significant impact on exploration, with a majority of recipients (91%) indicating that their grant contributed to their exploration success. The majority of respondents felt the funding levels and the proportion of matching funds required for each module were appropriate, and that evaluation criteria were fair. Responses varied regarding “fair share” between sectors, with placer sector respondents suggesting that placer applicants should receive an equal share (50%) of the funds.

As a follow up to the client survey, YGS compiled statistics on YMEP to allow the survey results to be compared to actual data (funding levels, success rates, applicants by sector, etc.). The compilation covered the last fifteen years, which is the period for which robust statistics exist. The data show that since 2000, YMEP has invested \$14.8M in 846 projects leveraging \$36.5M of additional exploration expenditures in the year the grants were awarded.

An analysis of the 2014 survey results and the data compilation is underway. The data reveal a significant increase in the number of placer applications since 2011. November 2010 was the second year that YGS held the (now annual) Placer Forum, and the first year that the author was invited to give a presentation at the forum to promote the funding program. The increase in interest by placer proponents is attributed largely to this effort to promote YMEP. Since 2011, the total amount of funding requested by placer applicants has averaged 23% of the total “ask” of all applications (Fig. 2a). Over this same period, placer applicants have received, on average, 23.5% of the available funds. While this suggests that placer applicants have been receiving a “fair share”, it also indicates that YGS could do a better job of communicating information about annual allocations, including the balance achieved between sectors.

While YGS has not yet had an opportunity to analyze the YMEP data in detail, a few trends are apparent. For example, applications for grants under the Grassroots module have decreased over the years, with a corresponding increase in applications under the Target Evaluation module. Figure 2b shows the breakdown of grants by module between 2010 and 2015.



**Figure 2.** Allocation of YMEP funds between 2010 and 2015, broken out by (a) sector and (b) funding module.

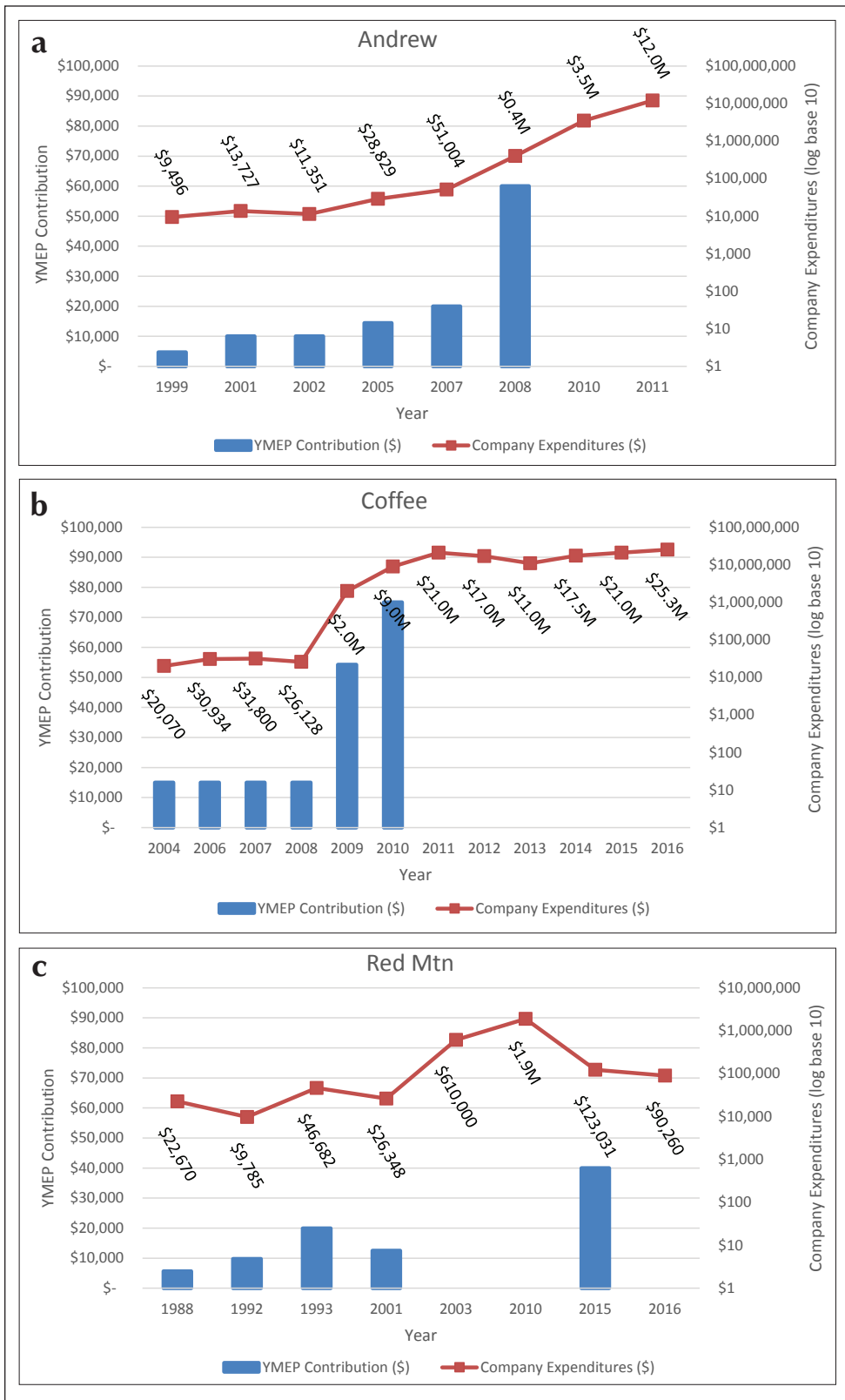
The YMEP is designed to meet the needs of users of the program and to act as an engine for stimulating economic development, and YGS is open to making changes to the program to meet these goals. For example, YGS has begun consultations with operators in the placer industry with regard to the creation of a placer-specific funding module. Whereas existing modules describe exploration activities that apply to hardrock exploration, the draft Placer module includes exploration activities that are specific to placer exploration, such as shafting and geophysical surveys that target depth to bedrock. These discussions will conclude in January to allow time to include the new module in the 2017 YMEP competition.

In addition to allowing trends to be identified, the compilation of YMEP data is intended to enable success measures to be developed. Success can be measured by a number of indicators, such as dollars leveraged, new discoveries and option agreements entered. In 2016, YMEP recipients committed ~\$4.5 M in exploration investment, corresponding to a leveraging ratio of over 3:1. While easily measured, leveraging ratios are relatively modest indicators of success. The greater impacts are linked to the discoveries made and the further investments they trigger in the medium to long term. To that end, a number of encouraging YMEP discoveries were made in 2016 which should stimulate exploration expenditures in the years ahead. One junior explorer is in discussions to option their property to a Yukon based

placer miner, and three prospectors were able to option or sell 100% interest in their projects to junior explorers. Other applicants have been in discussions regarding the optioning or sale of their YMEP funded projects. In total, fourteen potentially significant discoveries were made in 2016; these projects will be tracked by YGS going forward.

Looking back at other examples of YMEP-funded discoveries, the Coffee, Red Mountain and Andrew projects stand out as having stimulated significant investment beyond their initial YMEP-funded expenditures. The projects collectively represent a total investment in excess of \$147M and have combined resources of 7.14 Moz gold, 990 Mlb zinc, and 238 Mlb lead with a contained value in excess of \$12.1B. The total YMEP investment in these projects was \$396K, corresponding to a leveraging ratio of 371:1. Figure 3 illustrates the relative investments of public (YMEP) vs. private funds in these three projects.

YGS intends to carry out further analysis of the YMEP data over the next year, to determine whether there are potential adjustments that could improve the program. In the meantime, updates to program materials will be made for the 2017 call for applications. Application forms, scoring criteria and hardrock and placer program guidelines will be available for download by March 1, 2017 at [www.geology.gov.yk.ca/ymp.html](http://www.geology.gov.yk.ca/ymp.html).



**Figure 3.** Graphs showing total YMEP contributions (left axis) and company expenditures (right axis) over project life for (a) the Andrew project, (b) Coffee project and (c) Red Mountain project.

