

# GEOSTATS PTY LTD

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## *Certificate of Participation*

This is to certify that

*Zarazma Minerals Studies Company*

has participated in the October 2015  
Geostats Survey of International Laboratories

*S. Romero*  
Operations Manager

*P.J. Hayes*  
Managing Director

Geostats Laboratory Survey  
October 2015

Prepared for  
Zarazma Minerals Studies Company

Confidential



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THIS DOCUMENT SHOULD NOT BE CIRCULATED OUTSIDE THE COMPANY WHOSE NAME APPEARS ON THE COVER.**

To the reader,

This survey of laboratories undertaken by Geostats is performed as a service to both the Mining Industry and the Analytical Industry. It is envisaged that it can be used as a tool for the maintenance of high standards in both industries.

The report to the Mining Houses identifies most commercial laboratories and should be treated as confidential information. Some commercial facilities prefer to pay for the inclusion of their sites and these are not identified to the Mining Houses. This report should not be circulated outside of the Client Company or reproduced for the benefit of other mining groups.

It is not the intent of this survey to provide marketing tools for the analytical industry. A laboratory report is available which identifies only the laboratory or group requesting the report. This allows the laboratory to assess their performance in relation to the rest of the analytical industry. All the laboratories identified have taken advantage of this report and included it as part of their ongoing quality control procedures. Participation in these surveys is an indication of the laboratory's interest in quality and should be regarded as a positive sign regardless of the outcome.

Many thanks to both the laboratories and the Mining Houses for their ongoing support of this survey.

Kind regards,

**Stuart Romero** BSc, BEng

**Operations Manager | Geostats Pty Ltd**

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**Geostats Pty Ltd, O'Connor, Western Australia.**  
**Listing of Participating Laboratories for Round Robin - October 2015**

<b>Western Australia</b>	ALS Minerals - Kalgoorlie		<b>Lao PDR</b>	ALS Minerals Vientiane (Laos)
ALSM KAL	Amrntec Laboratory		ALSM LAOS	Lane Xang Minerals
ALSM METALLURGY	ALS Minerals - Perth		SEPON LAOS	Ban Houayxai Laboratory
ALSM PERTH	Nity Minesite Laboratory		PHU BIA BH	Phu Bia Mining Limited
NIFTY CU OP	Amdel Laboratory - Kalgoorlie		PHU BIA LAOS	
BV KAL	Ultra Trace Pty Ltd		<b>Mali</b>	
BV ULTRA TRACE	Kalassay Group (Perth Assay Laboratory)		ALSM TABAKOTO	ALS Tabakoto
KAL PER	Kalassay Group (Kalgoorlie Assay Laboratory)		SADIOLA MALI	Sadiola Mine Site Laboratory
KALGOORLIE AL	Standard & Reference Laboratories		SGS BAMAOKO	SGS Minerals Services (Bamako)
SAR LAB	Gekko Assay Laboratory		SGS LOULO	SGS Loulo
GEEKO VICTORIA	Granny Smith Gold Mine Laboratory		SGS MALI GCEX	Analabs Morila Laboratory
GRANNYS	Genalysis Laboratory Services Pty Ltd		SGS SYAMA	SGS Minerals Syama Laboratory
INT GEN PER	LabWest		<b>Mauritania</b>	
LABWEST	MinAnalytical		ALSM TASIAST	ALS Minerals - Tasiast
MINANALYTICAL	MMG Golden Grove		MICH SA	Mauritania Copper Mines SA
GOLDEN GROVE	Newcrest Mining Limited - Telfer Gold Mine Lab		<b>Mexico</b>	
NEWCREST TELFER	Plutonic Gold Mine Assay Lab		ACTLABS MEXICO	Actlabs Mexico SA de CV
PLUTONIC MINE	SGS Kalgoorlie		AURICO SANTA RITA	AuRico Gold - Minera Santa Rita
SGS KALG	SGS Newburn		BV MINERALS MEX	Inspectorate de México S.A. de C.V.
SGS NEWBURN	SGS Jundee		MCEWEN MEXICO	McEwen Mining Mexico
SGS JUNDEE	Simulus Laboratories		SGM CHIHUAHUA	Centro Experimental Chihuahua
SIMULUS			SGM OAXACA	Centro Experimental Oaxaca
<b>New South Wales</b>			<b>Mongolia</b>	
ALSM ORANGE	ALS Minerals - Orange		ACTLABS MONGOLIA	Actlabs Asia LLC
NEWCREST ORANGE	Newcrest Laboratory Services Orange		ATSG MONGOLIA	ALS Group LLC
SGS WYALONG	SGS Wyalong		KHANLAB MONGOLIA	Khanlab LLC
<b>Northern Territory</b>			<b>Morocco</b>	
INT DARWIN	Northern Territory Environmental Laboratories		MANAGEM REMINEX	Reminex Centre de Recherche
GRANITES	Granites Gold Mine		<b>Namibia</b>	
<b>Queensland</b>			BV NAMIBIA	Bureau Veritas Mineral Laboratories - Namibia
ALSM BRIS	ALS Minerals - Brisbane		DUNDEE PMT	Namibia Custom Smelters
ALSM MT ISA	ALS Minerals - Mt Isa		<b>New Zealand</b>	
ALSM TVL	ALS Minerals - Townsville		SGS NZ MACRAES	SGS New Zealand, Macraes Laboratory
PORGERA	Porgera Gold Mine Laboratory		SGS NZ REEFTON	SGS New Zealand, Reefton Laboratory
BV MT ISA	Amdel Mt Isa		SGS NZ WAIHI	SGS New Zealand, Minerals Laboratory
CHEM LAB MIM	Mount Isa Mines Analytical Laboratory		<b>Papua New Guinea</b>	
HRL TESTING	HRL Testing		INTERTEK HV	Intertek Hidden Valley
SGS TOWNSVILLE	SGS Townsville		ITS MOROBE	ITS (PNG) Limited
<b>South Australia</b>			LHIR	Lihir Gold - Minesite Laboratory
BHP OLYMPIC	BHP Billiton		<b>Peru</b>	
BV ADL	Amdel Laboratory - Adelaide		ALSM LIMA	ALS Peru SA
INT GEN ADEL	Genalysis Laboratory Services - Adelaide		LAGUNAS MINE	Minera Barrick Misquichilca - Unidad Lagunas Norte
<b>Tasmania</b>			PIERINA MINE	Minera Barrick Misquichilca - Unidad Pierna
ALSM BURNIE	Burnie Research Laboratory		CERTIMIN	Certimin S.A.
<b>Argentina</b>			CERTIMIN LA ARENA	Certimin S.A. - La Arena
ASA MENDOZA	Alex Stewart Assayers Argentina SA - Mendoza		CMH PERU	Consorcio Minero Horizonte S.A.
ASA PERITO MORENO	Alex Stewart Assayers Argentina SA - Perito Moreno		NEW PERU	Minera Yanacocha SRL - Newmont Lab (Peru)
VELADERO MINE	Veladero Project Assay Lab		SGS LIMA	SGS del Peru SAC
<b>Armenia</b>			<b>Philippines</b>	
DUNDEE ARMENIA	Deno Gold Mining Company		ITS McPHAR	Intertek Testing Services Philippines
<b>Botswana</b>			<b>Portugal</b>	
MUPANE BOTS	Mupane Gold Project Lab		SOMINCOR	Somincor, S.A.
<b>Brazil</b>			<b>Romania</b>	
KINROSS BRAZIL	Kinross Brasil Mineração SA		ALSM ROMANIA	ALS Romania
SGS LF BELO HOR	SGS Geosol Laboratórios Ltda		<b>Russia</b>	
<b>Bulgaria</b>			ALSM CHITA	ALS Minerals - Chita
CHELOPECH MINE	Chelopech Mine Laboratory		ALSM MOSCOW	Stewart Geochemical and Assay Ltd
<b>Burkina Faso</b>			IRGIREDMET RUSSIA	IRGIREDMET JSC
ALSM OUAGADOUGOU	Abilab Burkina SARL		SGS CHITA	SGS Chita
IAMGOLD BF	IAMGOLD Essakane SA		TOMS RUSSIA	TOMS-Irkutsk
SEMAFO	Semafo Burkina Faso		VSEGEI RUSSIA	VSEGEI All-Russia Geological research Institute
SGS OUAGADOUGOU	SGS Burkina SA		<b>Saudi Arabia</b>	
<b>Canada</b>			ALAMRI JEDDAH	Al Amri Laboratory
ACTLABS CAN	Activation Laboratories Ltd (Canada)		ALSM JEDDAH	ALS Minerals - Arabia
ACTLABS TB	Activation Laboratories Ltd - Thunder Bay		<b>Senegal</b>	
AGAT ONTARIO	AGAT Laboratories		SGS SABODALA	SGS Sabodala
YOUNG-DAVIDSON	AuRico Gold - Young-Davidson		<b>Serbia</b>	
ALSM QUEBEC	ALS Minerals (Val d'Or)		SGS BOR	SGS Bor
ALSM VAN	ALS Minerals - Vancouver		<b>South Africa</b>	
AUTEC VAN	AuTec Innovative Extractive Solutions Ltd		ALSM JOBURG	ALS Minerals - Johannesburg
HEMLO MINE	Williams Operating Corporation		AR JOBURG	Anglo Research, Crown Mines - AS
BECQUEREL-NAA	Becquerel Laboratories Inc		INSPECTORATE RSA	Inspectorate Services Rustenburg
ACME VAN	Bureau Veritas Commodities Canada Ltd		MINTEK SA	Mintek Analytical Services Division
BVCC TIMMINS	Bureau Veritas Commodities Canada Ltd		RAPPA RESEARCH	Rappa Research Laboratory
MUSSELWHITE	Musselwhite Mine Laboratory		SCI SER	Scientific Services Pty Ltd
MET-SOLVE	Met-Solve Analytical Services		SET POINT SA	Set Point Laboratories
SGS COCHRANE	SGS Cochrane		SGS BARBERTON	Performance Laboratories Barberton
SGS LAKEFIELD	SGS Lakefield (Ontario)		SGS PLR	Performance Laboratories (PLR)
SGS VANCOUVER	SGS Vancouver		SGS PLW	Performance Laboratories (PLW)
TSL SASKATCHEWAN	TSL Laboratories		SIBANYE BEATRIX	Sibanyeqold Beatrix Division
<b>Chile</b>			SIBANYE CHARL	Sibanyeqold Analytical Laboratory Driefontein Operations
ACME CHILE	Acme Analytical Laboratories Chile SA		<b>Suriname</b>	
ITS CHILE	Intertek Minerals Chile		FLAB SURINAME	Filab Suriname
<b>China</b>			<b>Tanzania</b>	
ALSM CHINA	ALS Minerals - Guanzhou (China)		SGS MWANZA	African Assay Laboratories (Tanzania) Ltd
ITS BEIJING	Intertek Testing Services, Ltd, Shanghai - Beijing Branch		BULYANHULU TANZ	Bulyanhulu Mine Assay Lab
<b>Congo</b>			BUZWAGI	Pangea Minerals Ltd
SGS TWANGIZA	SGS Twangiza		NORTH MARA	North Mara Minesite Laboratory
<b>Cote d'Ivoire</b>			GEITA TANZ	Geita Gold Mine Laboratory
BV COTE	Bureau Veritas Mineral Laboratories Cote d'Ivoire		<b>Thailand</b>	
SGS AGBAOU CI	SGS Côte d'Ivoire S.A.		CHATREE THAI	Chatree Gold Mine Laboratory
<b>Democratic Republic of Congo</b>			<b>Turkey</b>	
SGS KIBALI	SGS Kibali		ANAGOLD TURK	Anagold Madencilik San Ve Tic.A.S.
SGS KINSEVERE	AMCK Mining SPRL		ALSM TURKEY	ALS Minerals - Turkey
SGS KIPOI	SGS Laboratory - Kipoi		ACME TURKEY	Acme Analytical Laboratories Ltd - Turkey
<b>Dominican Republic</b>			TUPRAG TURK	Tuprag Kisladag Gold Mine
PUEBLO VIEJO	Pueblo Viejo Laboratorio		KOZAGOLD KAYMAZ	Koza Gold Mine Kaymaz Laboratory
<b>England</b>			KOZAGOLD TURKEY	Koza Gold Mine Laboratory
WARDELL ENGLAND	Wardell Armstrong		MNG ORKO TURKEY	MNG Orko Madencilik
WHEEL JANE ENGLAND	Wheel Jane Laboratory		ONSA TURKEY	Onsa Refinery
<b>Eritrea</b>			SGS TURKEY	SGS Turkey
SGS BISHA	SGS Bisha		<b>United States of America</b>	
<b>Finland</b>			ALSM RENO	ALS Minerals - Reno
LASTIUM FIN	Lastium Laboratories		AALLABS	American Assay Laboratories
<b>Ghana</b>			BALD MOUNT	Bald Mountain Mine Assay Lab
ALSM GHANA	ALS Minerals - Ghana		CORTEZ MINE	Cortez JV Mine Assay Lab
GOLD FIELDS GHANA	Gold Fields Ghana Ltd		GOLD SUNLIGHT MINE	Golden Sunlight Mine Assay Lab
ITS GHANA	Intertek Minerals Ltd (Ghana)		GOLDSTRIKE	Barrick Analytical Laboratory
SGS TARKWA	SGS Laboratories (Tarkwa)		ROUND MOUNT MINE	Round Mountain Gold Assay Lab
SGS OBUASI	AngloGold Ashanti - Assay Lab		RUBY HILL	Ruby Hill Mine Laboratory
NEW AHAFU GHANA	Ahafo Mine Site Laboratory		TURQ RIDGE MINE	Turquoise Ridge JV Mine Assay Lab
<b>Greece</b>			INSPECTORATE NEV	Inspectorate Services Sparks
HELLAS GREECE	Hellas Gold		CSAL USA	Copper State Analytical Laboratory
<b>Guinea</b>			FLORIN RENO	Form Analytical Services
SGS SIGUIRI	SGS Mineral Services (Guinee) SARL		FLSMITH USA	FLSmith Analytical Lab
<b>Guyana</b>			MCCLELLAND NEV	McClelland Laboratories, Inc.
ACTLABS GUYANA	Actlabs Guyana Inc		NEW GC	Newmont Mining Corporation - Carlin Assay Lab
<b>India</b>			NEW LONE	Newmont - Lone Tree Mine
SHIVA INDIA	Shiva Analyticals (India) Ltd		NEW MET SER	Newmont Metallurgical Services
<b>Indonesia</b>			NEW TWIN CM	Newmont - Twin Creek Mine
ITS UTAMA	Intertek Utama Services Manado		RTKC UTAH	Rio Tinto Kennecott Copper
ITS GOSOWONG	Gosowong Gold Project Lab		SKYLINE ARIZONA	Skyline Assayers & Laboratories - Arizona
ITS MATARAM	ITS Lab - PT Newmont Nusa Tenggara		<b>Uruguay</b>	
GEOSERVICES IND	PT Geoservices Ltd		OMI URUGUAY	Triselco SA Laboratory
TEMBANG	PT Geoservices Ltd - Tembang		<b>Zambia</b>	
WAY LINGGO	PT Geoservices Ltd - Way Linggo		AHK KITWE	Alfred H Knight Zambia Ltd
JRESOURCES BAKAN	PT. Jresources Bolanna Monoandow - Bakan Project		ALSM KANSANSHI	ALS Minerals - Kansanshi
SUCOFINDO INDO	Sucofindo Timika Laboratory		LUMWANA MINE	Lumwana Mine Site Lab
<b>Iran</b>			KANSANSHI ZAMBIA	Kansanshi Mining PLC
IMPRC IRAN	Iran Mineral Processing Research Center (IMPRC)		SGS KALULUSHI	SGS Inspection Services Zambia
ZARAZMA MAHAN	Zarazma Mahan		<b>Zimbabwe</b>	
ZARAZMA RADIN	Zarazma Roudin		ANTECH	Antech Laboratories
ZARAZMA TEHRAN	Zarazma Minerals Studies Company		FREDDA ZIM	Freda Rebecca Gold Mine
<b>Ireland</b>			SGS ZIMBABWE	Performance Laboratories Zimbabwe
ALSM IRELAND	Omac Laboratories - Ireland		<b>Commercial Laboratory</b>	
<b>Kazakhstan</b>			<b>Minesite Laboratory</b>	
ALSM KAZAKHSTAN	ALS Minerals - Kazakhstan		<b>Government Laboratory</b>	
<b>Kyrgyz Republic</b>				
ALSM KYRGYZSTAN	Stewart Assay and Environmental Laboratories LLC			

## REPORT ON LABORATORY SURVEY – October 2015

A round robin to measure the accuracy of gold, silver, sulphur and base metal analyses from 215 laboratories was conducted during October 2015. The results of this survey are a measure of the ability of a laboratory to accurately analyse a pre-prepared pulp.

The ability of a laboratory to crush, split and prepare the sample without contamination is not measured by this survey. Knowledge of sampling machinery and the ability to design efficient flow systems with in-built homogeneity checks is required in order to develop confidence in the sample preparation.

The samples submitted to the laboratories consisted of:

- 10 gold samples
- 5 low level gold samples
- 6 gold and silver on carbon samples
- 10 geochemical base metal samples
- 6 ore-grade base metal samples
- 10 sulphur samples

Companies operating more than one laboratory have received extra filler samples, which are not used in the calculations. The Geostats numbering system makes it extremely difficult for any cross collation of results from one laboratory to the next. This provides a level playing field for all laboratories, whether they are sole operators or members of a large laboratory group.

We use a double entry system to build an accurate database. Two individuals enter all the data and when complete these two files are cross-checked and the source data is consulted to rectify any errors. The mean values used for calculations in this study are checked visually by preparing histograms. Outliers are removed and the remaining population distributions are tested for normality. All outliers are checked back to the original assay report for a third and final time.

### GOLD SAMPLES

Three lots of gold samples were submitted to the laboratories, one lot for fire assay, one for aqua regia digest (or similar) and one for low-level gold. Becquerel Canada performed Neutron Activation Analysis on all samples, reporting a gold + 33 element analysis which has been included at the end of this report. Becquerel Canada can be contacted through Salima Haniff at SHaniff@maxxam.ca

### GOLD AND SILVER ON CARBON SAMPLES

Six gold and silver on carbon samples were included in this survey, both loaded and barren. The method of analysis for these samples was left up to the individual laboratories.

### GEOCHEM BASE METAL SAMPLES

The base metal samples were analysed for copper, lead, zinc, nickel, arsenic, silver and cobalt. The method of analysis for base metal samples was left to the discretion of the laboratory manager. However, the report groups them into Total (typically 4 acid digest or fusion) and Partial (all others, mainly aqua regia) methods. Becquerel Canada performed Neutron Activation Analysis and these have been included in the Total digest group. Methods are listed in the results page for the respective analyte.

## **ORE GRADE BASE METAL SAMPLES**

Six ore-grade and concentrate samples are included in the survey. These are assayed primarily for copper, lead, zinc, nickel, silver and sulphur. Other elements are reported but not in sufficient numbers for inclusion in the report. These high-grade materials are analysed at the chemist's discretion but almost always using ore-grade techniques. Some use classical analyses while others use XRF or other methods. However, some of these products have, for example, high lead but low copper and the method for copper analysis may be inappropriate for low levels. Owing to this characteristic, only higher grade analyses are plotted in the related

## **SULPHUR SAMPLES**

Ten sulphur and carbon samples were prepared for the survey. These ten new samples are a good mix of values with sulphur values up to 6.9% and carbon values up to 0.16%.

All of the certified reference materials used in this survey are available for purchase.

## **RESULTS**

The results of the analyses are presented in three forms:

1. A table showing values as reported from the laboratories. These are presented in columns according to their respective sample identifiers, with each result's standardised Z value also displayed. Outliers are highlighted and assigned a Z value of 3.00 or -3.00. General statistics are listed at the top of each table.
2. Bar chart for each element showing the sum of absolute standardised values divided by the count of absolute standardised values.
3. Bar chart for the mean of standardised values.

## **EXAMINATION OF RESULTS - METHODOLOGY**

1. Double entry of all data and validation by cross-checking. Confirm any anomalous values.
2. Produce basic statistics on results, including:
  - a. count
  - b. mean
  - c. median
  - d. standard deviation
  - e. minimum
  - f. maximum
  - g. error (95% Confidence Interval)
  - h. percentage error of mean (error as a percentage of the calculated mean).
3. Produce summary statistics and assay sheet.
4. Run outlier macro to find obvious outlier values.
5. Generate 'Z' intervals for remaining data (from calculated mean).
6. Check that median and mean are similar to verify a normal distribution.
7. Standardise remaining values i.e. subtract the mean and divide by the standard deviation.

8. Add results from each laboratory in 'standardised values' calculations (positive and negative) and divide by count.
9. Produce 'Mean of Standardised Values' Bar Charts.
10. Add absolute values from each laboratory in 'standardised values' calculations.
11. Divide result by count of results to calculate average absolute standard value for laboratory performance on each element.
12. Produce 'Mean of Absolute Standardised Values' Bar Charts.

## **CHARTS**

The 'Mean of Standardised Values' charts (blue in reports) indicate any bias shown by laboratories on a particular element, but do not show any general error which might be plus and minus the mean. The 'Mean of Absolute Standardised Values' charts (red in reports) indicate the general error but no bias.

## **INTERPRETATION OF RESULTS**

### **SUMMARY STATISTICS AND ASSAY TABLES**

These tables are self-explanatory. The row titled 'error' refers to the margin of error expected at 95% confidence. That is, the standard normal probability or 'Z' statistic representing 95% (1.96) is multiplied by the standard deviation and the result is divided by the square root of the population. We can be 95% confident that the true mean lies between mean minus error and mean plus error. The row titled '% error in mean' is simply this margin of error expressed as a percentage of the calculated mean. Outliers are highlighted and not used for calculations at the top of the tables.

### **STANDARDISED VALUES**

These numbers are generated using the following formula. Reported value minus the mean, result of this divided by the standard deviation. This creates a new distribution with mean '0' and standard deviation '1'. Positive and negative numbers result from this calculation depending on whether the reported value is above or below the mean. Laboratories reporting outliers are manually assigned 3.00 or -3.00 as these results have been removed from automatic calculation. The higher the absolute number reported, the further the reported assay is from the calculated mean.

### **MEAN OF ABSOLUTE STANDARDISED VALUES (RED CHARTS)**

The bar representing each laboratory is the mean of the sum of the absolute standardised values reported on all assays of the element in question. That is, the absolute sum of the rows in the Standardised Values Table divided by the number of assays. These charts give a visual representation to the general error shown by the particular laboratories. These charts do not show bias.

### **MEAN OF STANDARDISED VALUES (BLUE CHARTS)**

These charts show the mean of standardised values with negative values included. A direction of error or bias can be interpreted from laboratories showing high values, negative or positive.



## BRIEFLY

General error is indicated in absolute column charts (red charts).

Bias is indicated in negative/positive column charts (blue charts).

The column charts show indications of error or direction of error - check the real data in the tables before coming to any decision as to the significance of this error. Also pay attention to the grade of the standard materials with regard to the laboratory level of detection. Some laboratories may report outliers due to the limitations of their methodology.

## LEGEND FOR METHODS & READINGS

### METHODS

### READINGS

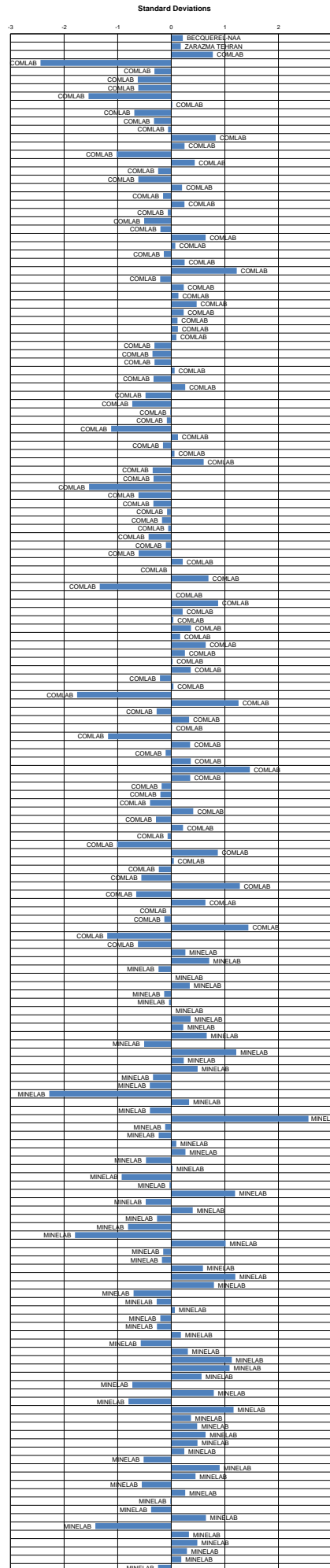
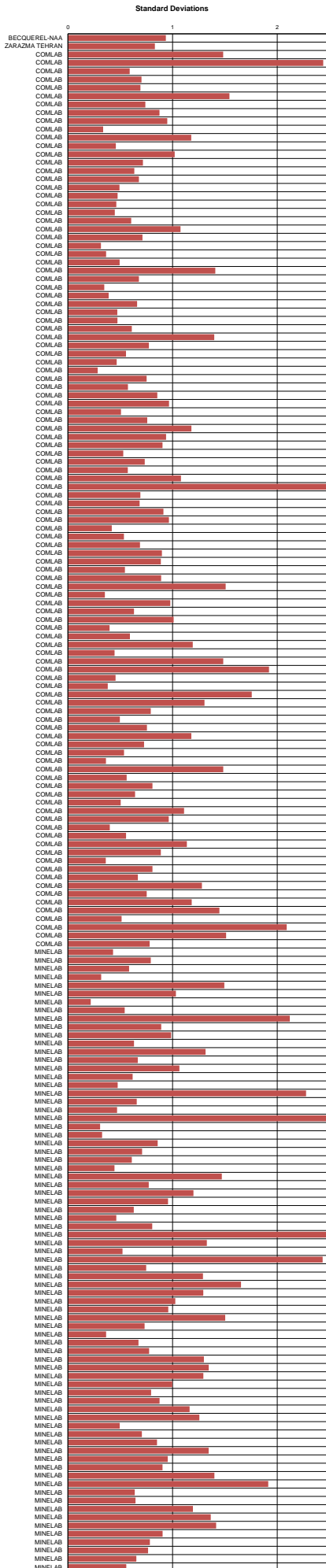
1A	1 Acid Digest	AAS	Atomic Absorption Spectroscopy
3A	3 Acid Digest	DIBK	DIBK Extraction
4A	4 Acid Digest	ES	ICP - Emission Spectroscopy
AD	Acid Digest	GRAV	Gravimetric
AR	Aqua Regia	ICP	Inductively Coupled Plasma - Unspecified
CSA	Carbon and Sulphur Analyser	IR	Infrared
FA	Fire Assay	MS	ICP - Mass Spectroscopy
FUS	Fusion	TITR	Titration
GF	Graphite Furnace	XRF	X-Ray Fluorescence
GRAV	Gravimetric		
IH	In House Method		
LW	Leach well		
MAD	Multi-Acid Digest		
MICR	Microwave		
NAA	Neutron Activation Analysis		
PP	Pressed Powder		
PR	Pre-Roast		
TITR	Titration		

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## RESULTS OF ANALYSES PRESENTED AS TABLES AND PLOTS

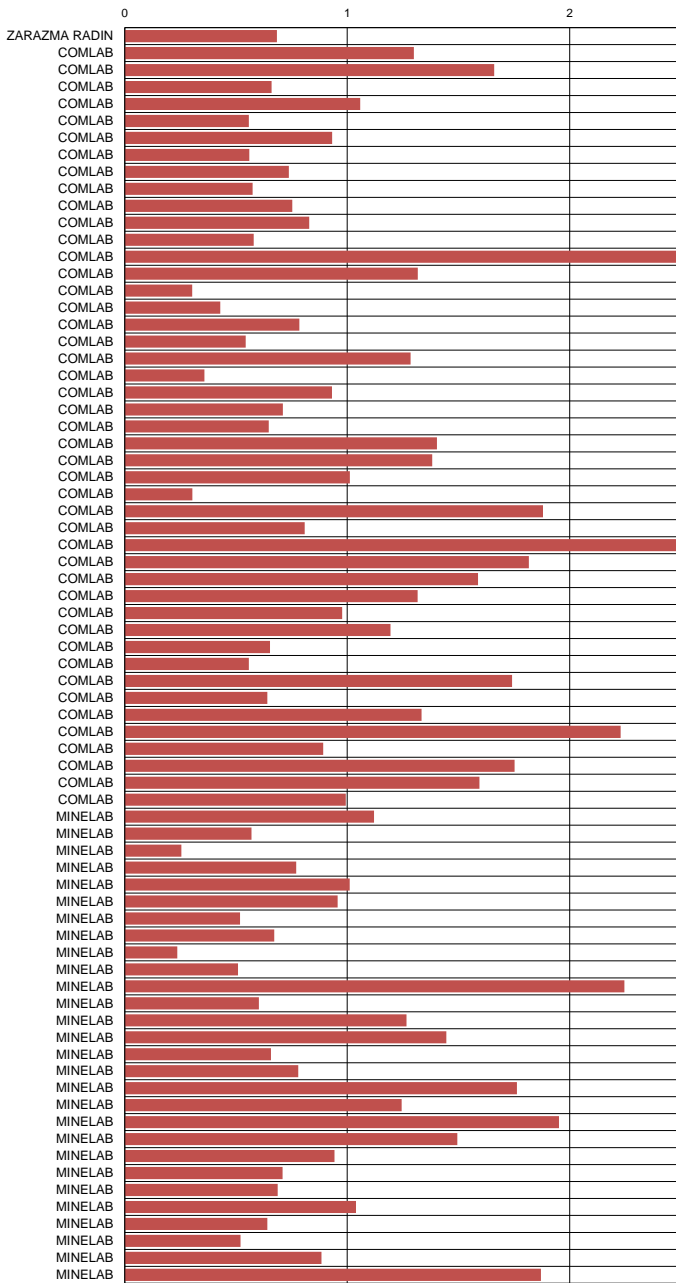
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Silver (Total Digest)	11 & 12
Silver (Partial Digest)	13 & 14
Copper (Total Digest)	15 & 16
Copper (Partial Digest)	17 & 18
Lead (Total Digest)	19 & 20
Lead (Partial Digest)	21 & 22
Zinc (Total Digest)	23 & 24
Zinc (Partial Digest)	25 & 26
Nickel (Total Digest)	27 & 28
Nickel (Partial Digest)	29 & 30
Arsenic (Total Digest)	31 & 32
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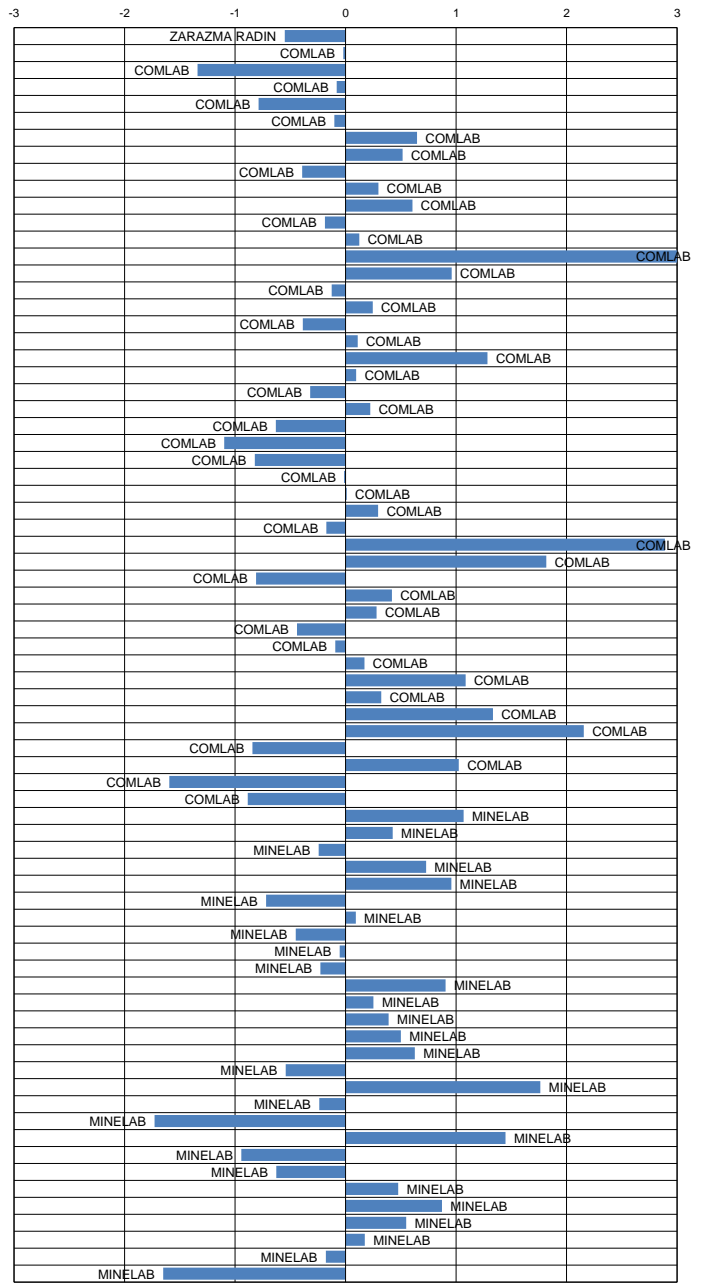




Standard Deviations

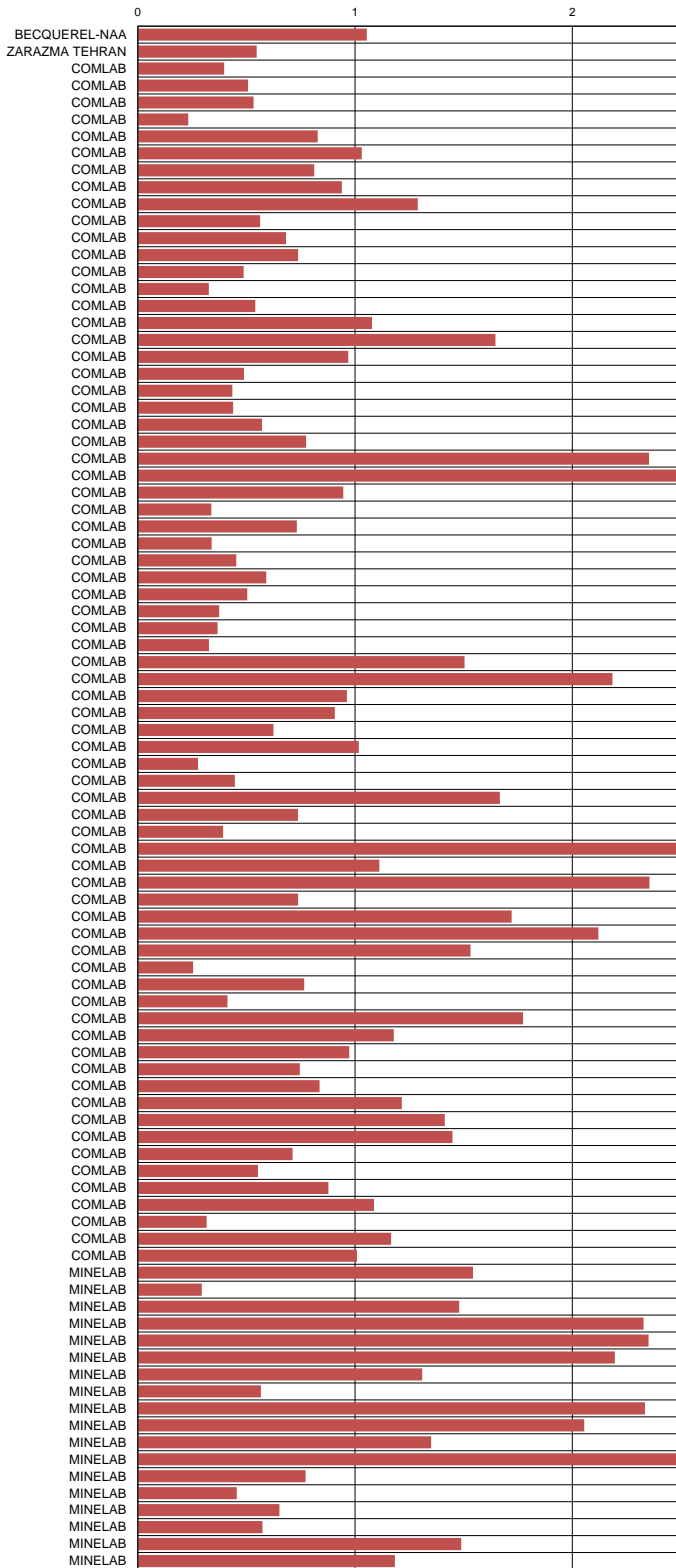


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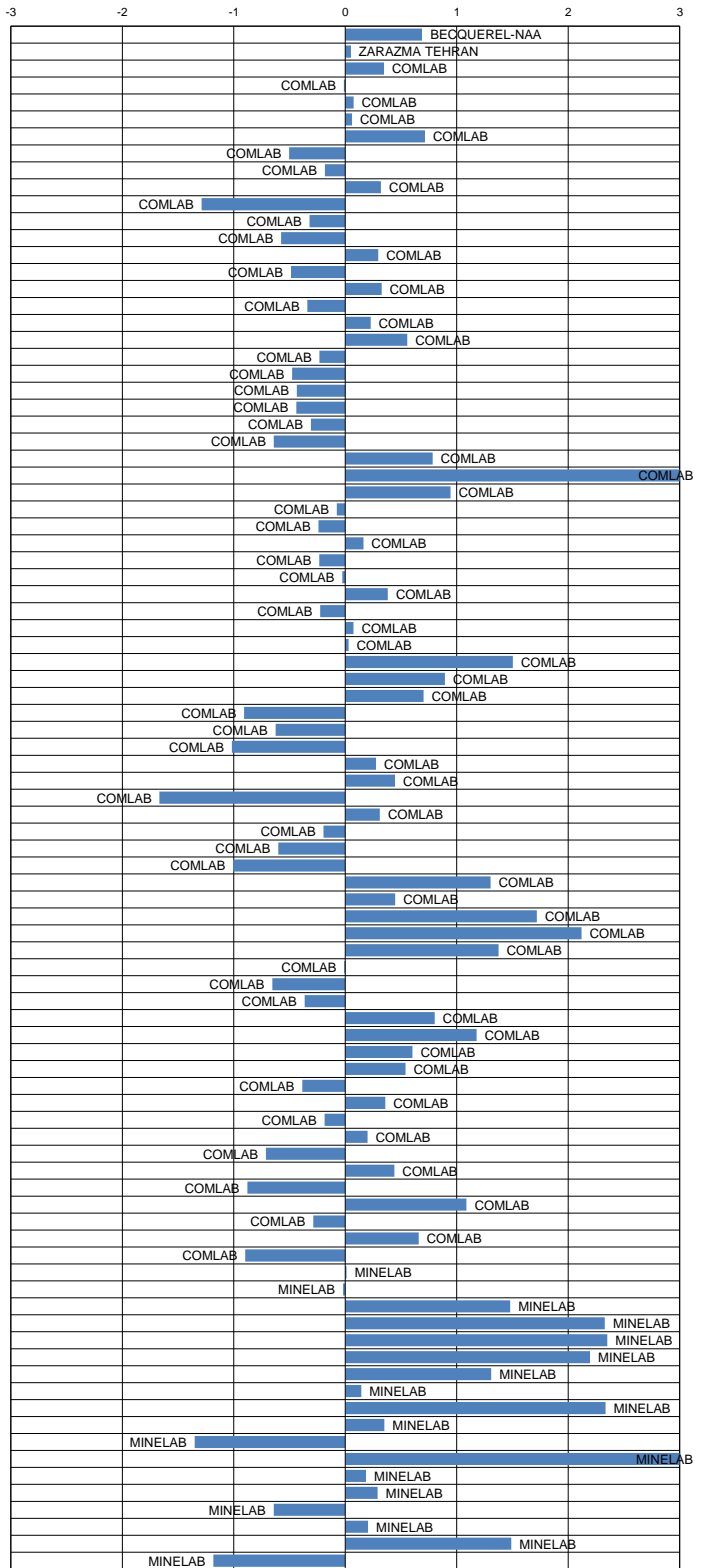




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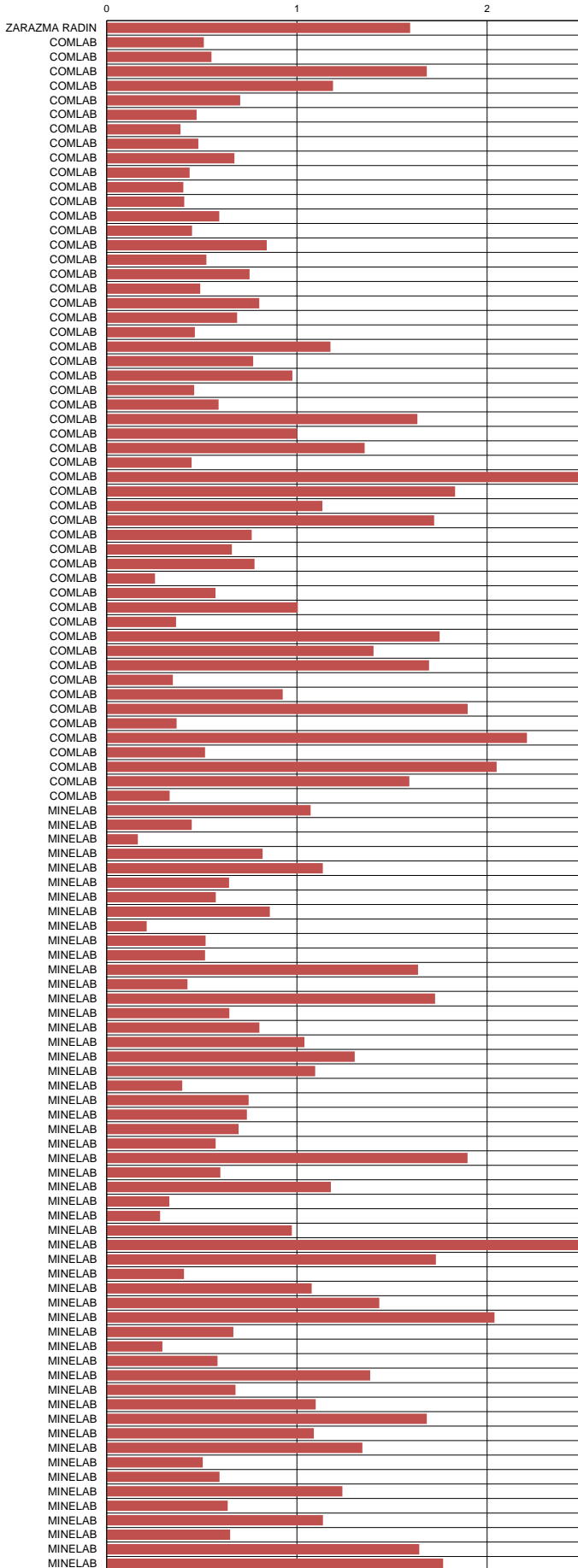
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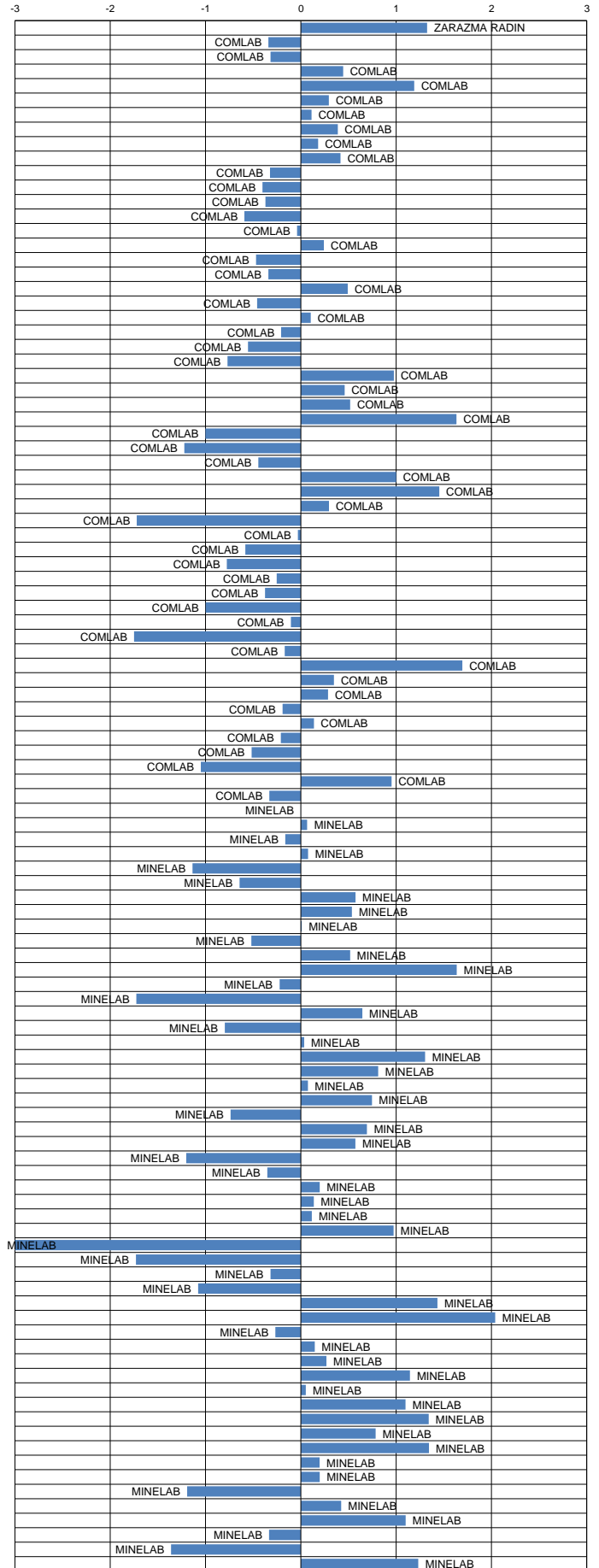




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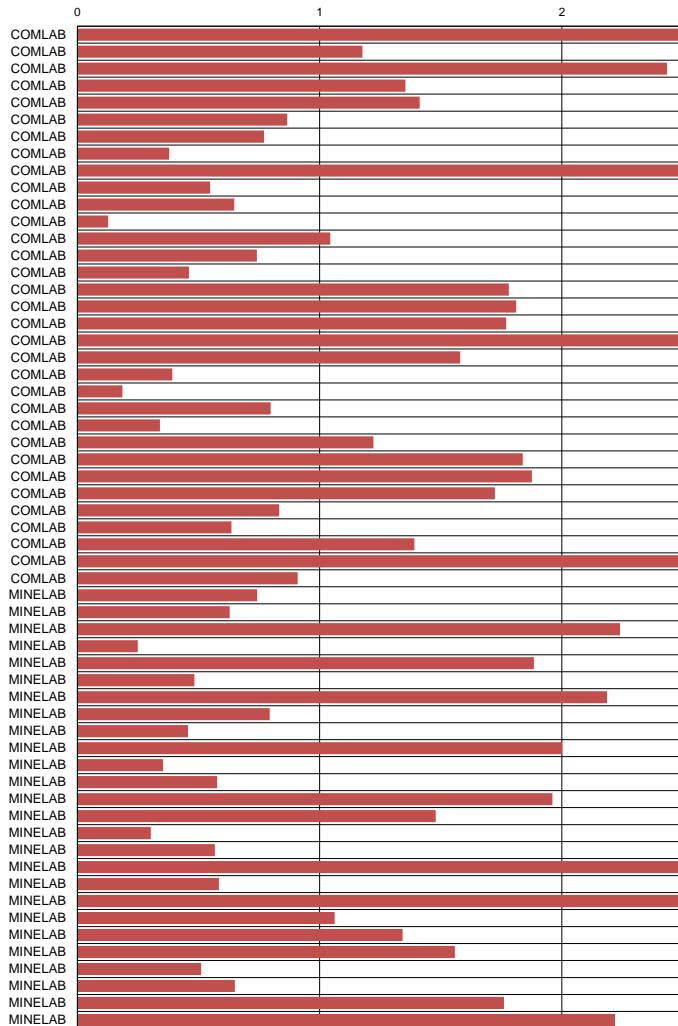


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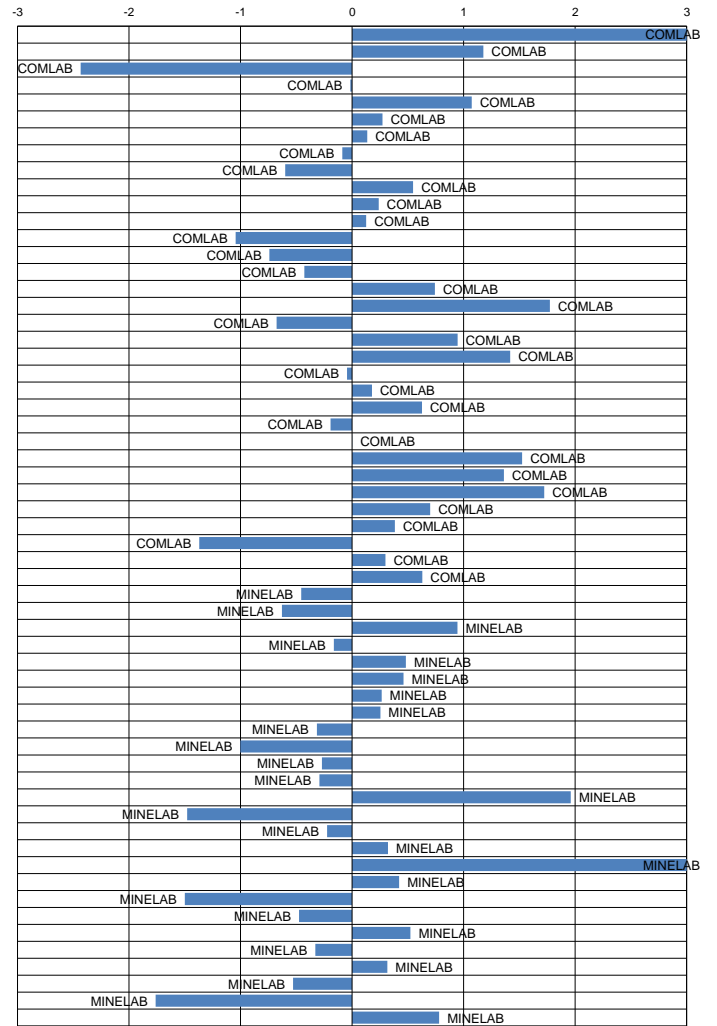




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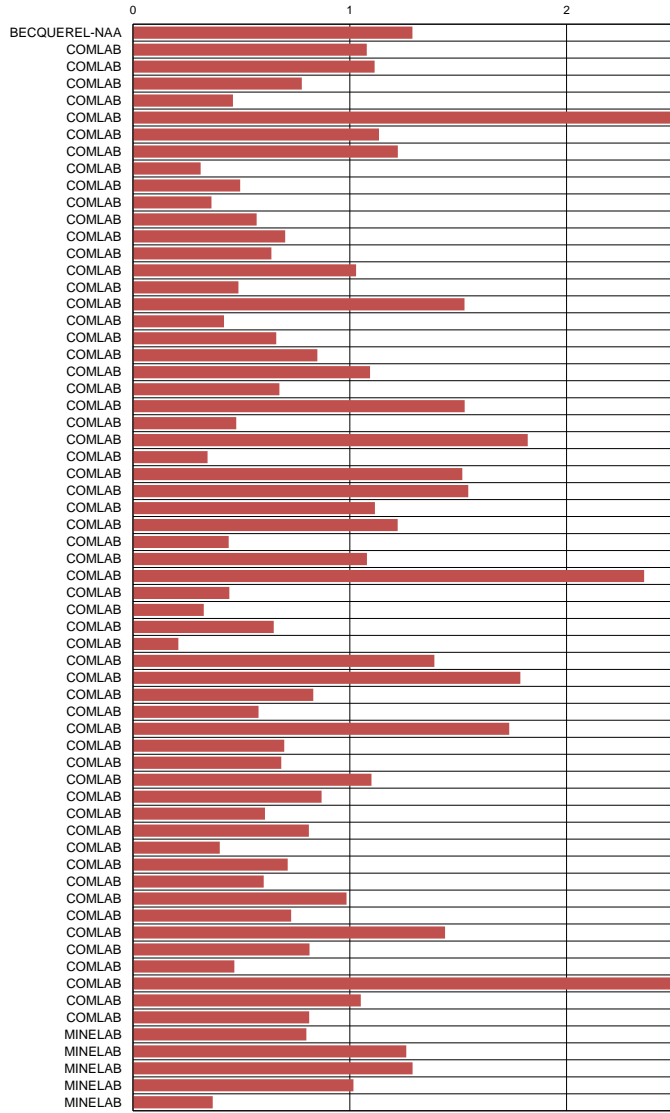


Standard Deviations

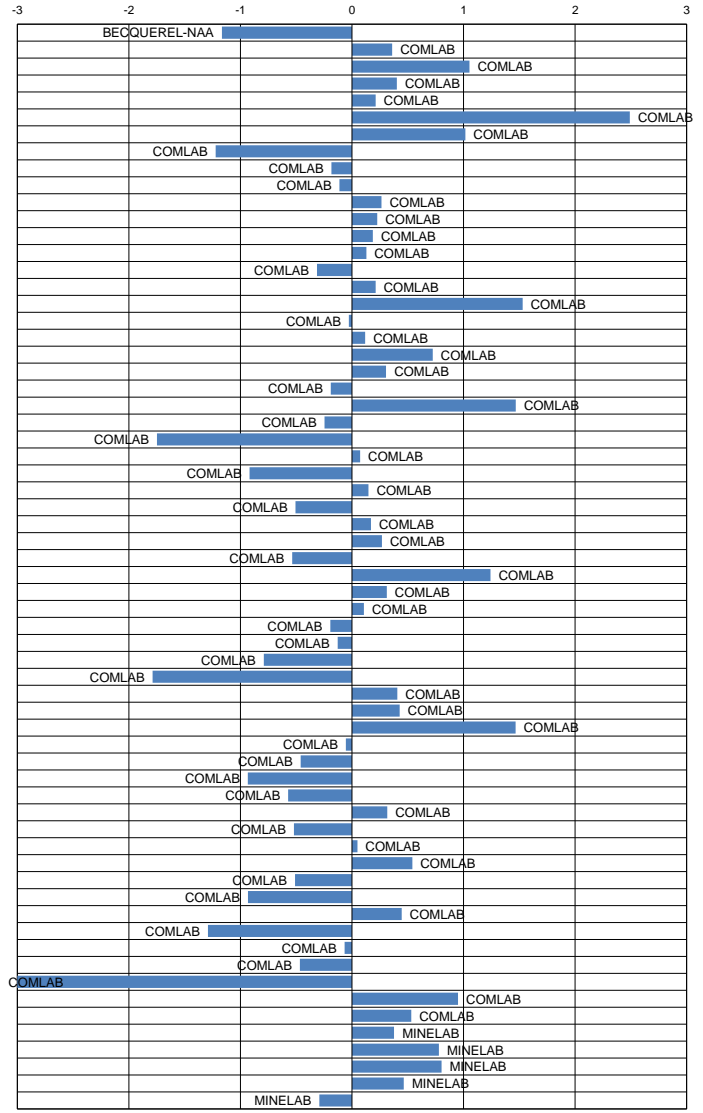




Standard Deviations

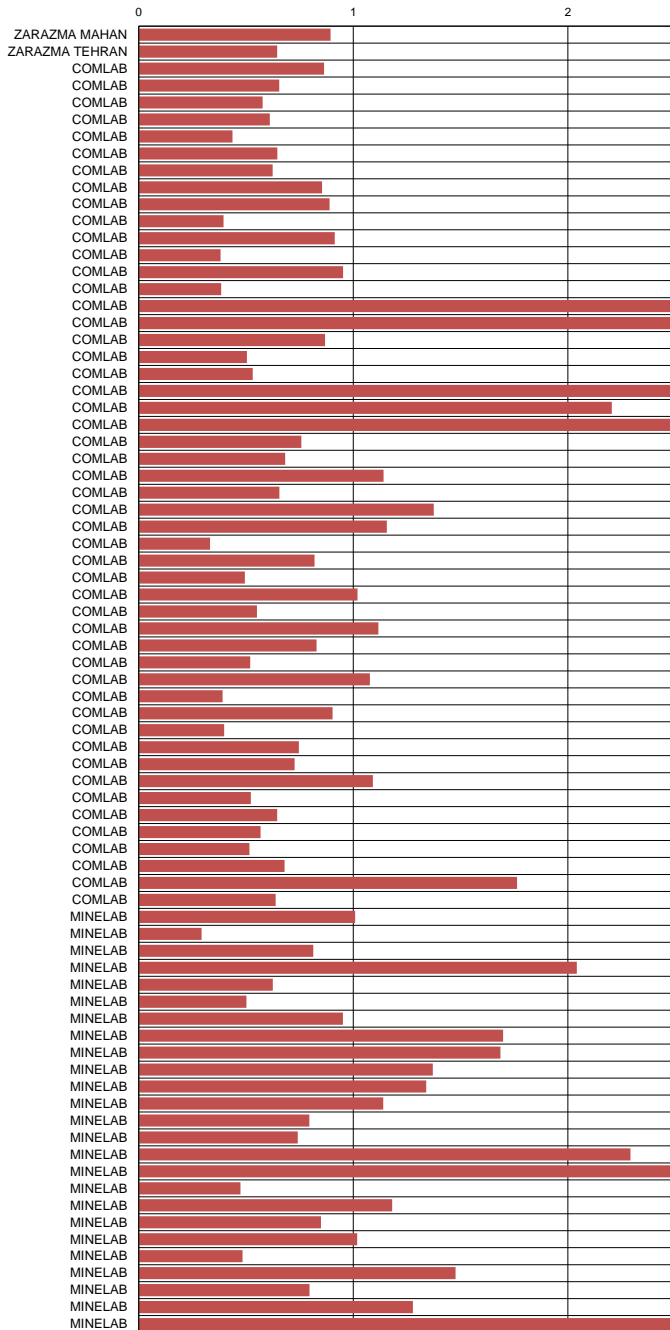


Standard Deviations

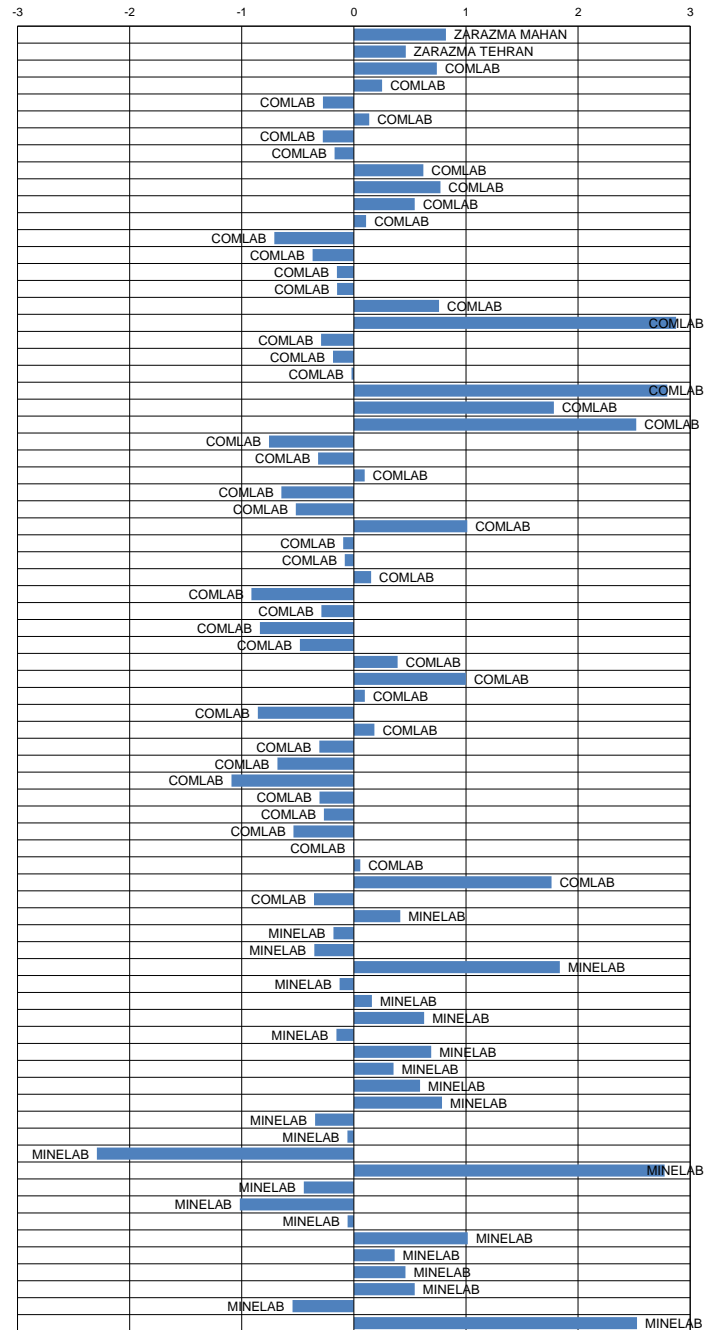




Standard Deviations



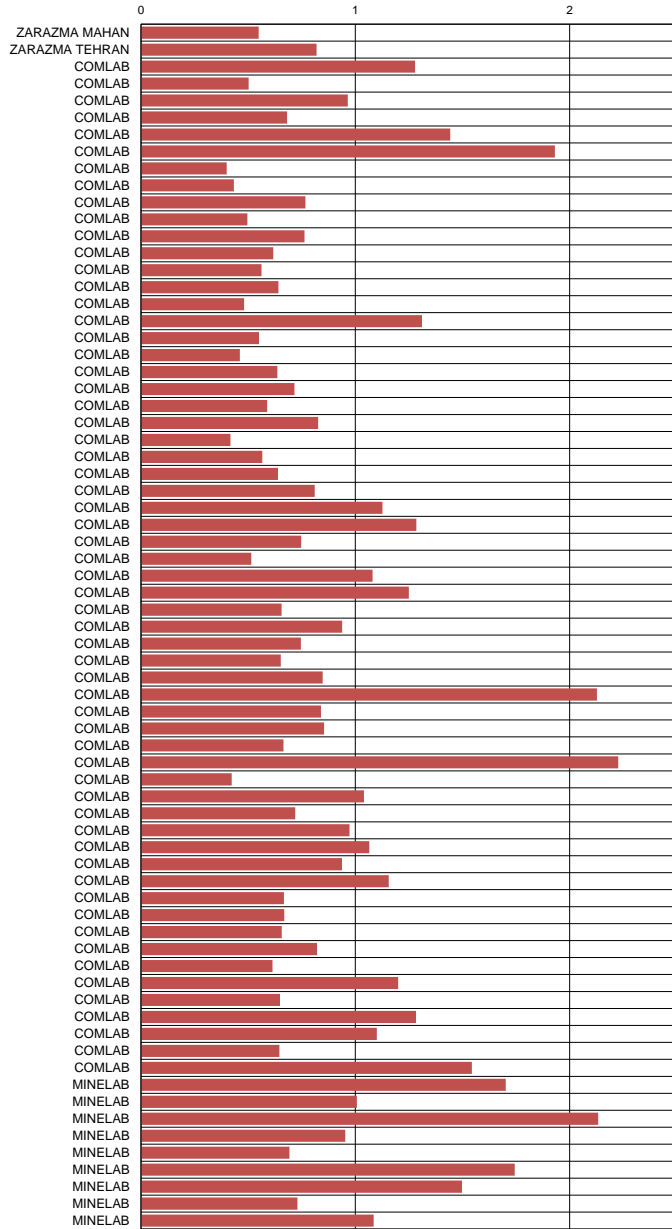
Standard Deviations



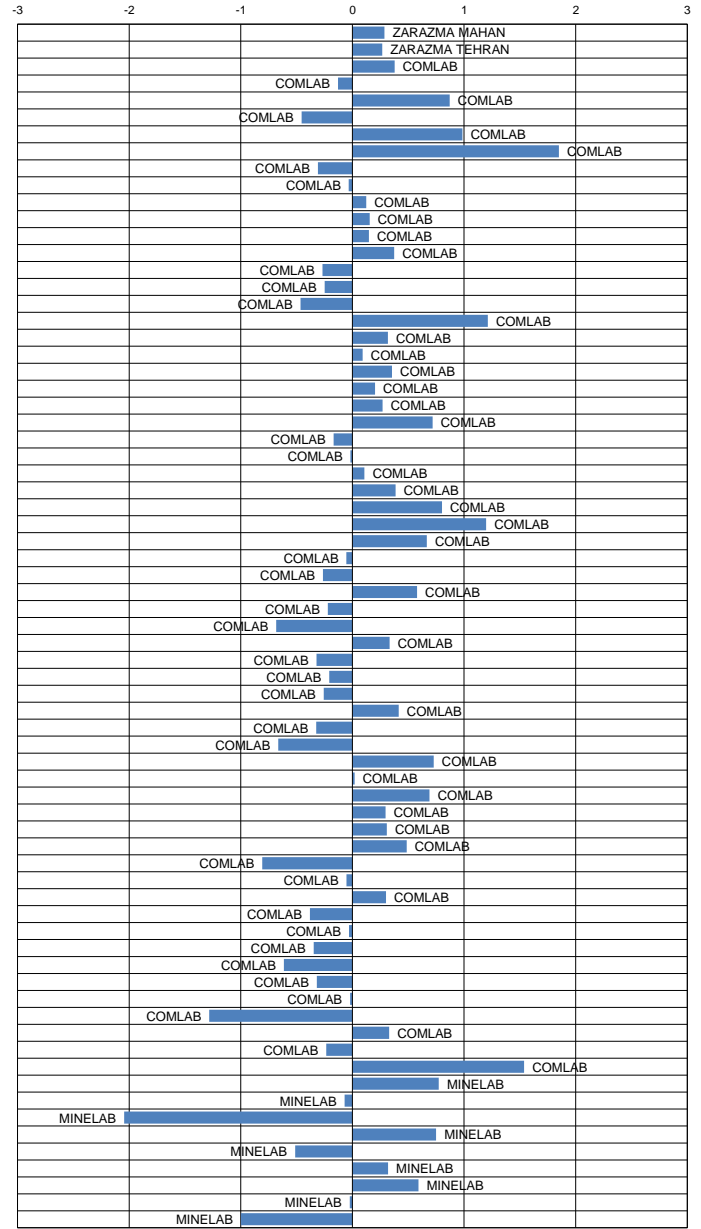




Standard Deviations



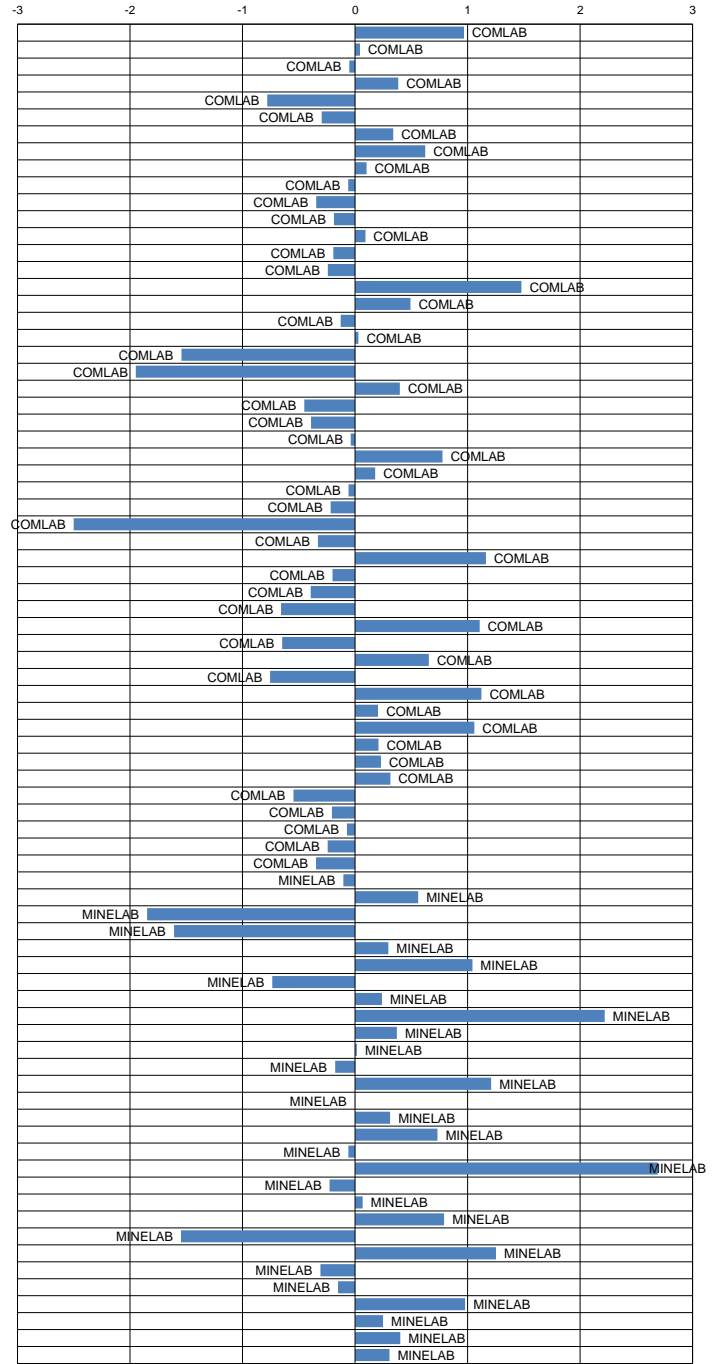
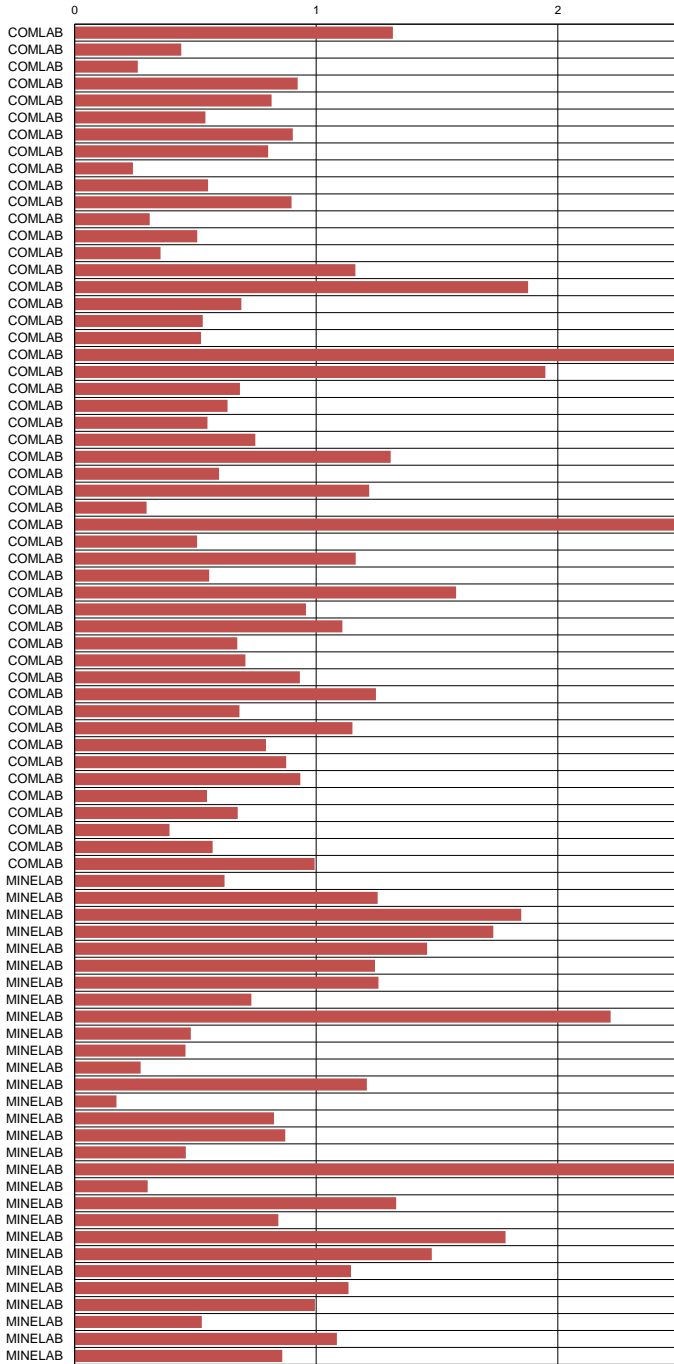
Standard Deviations





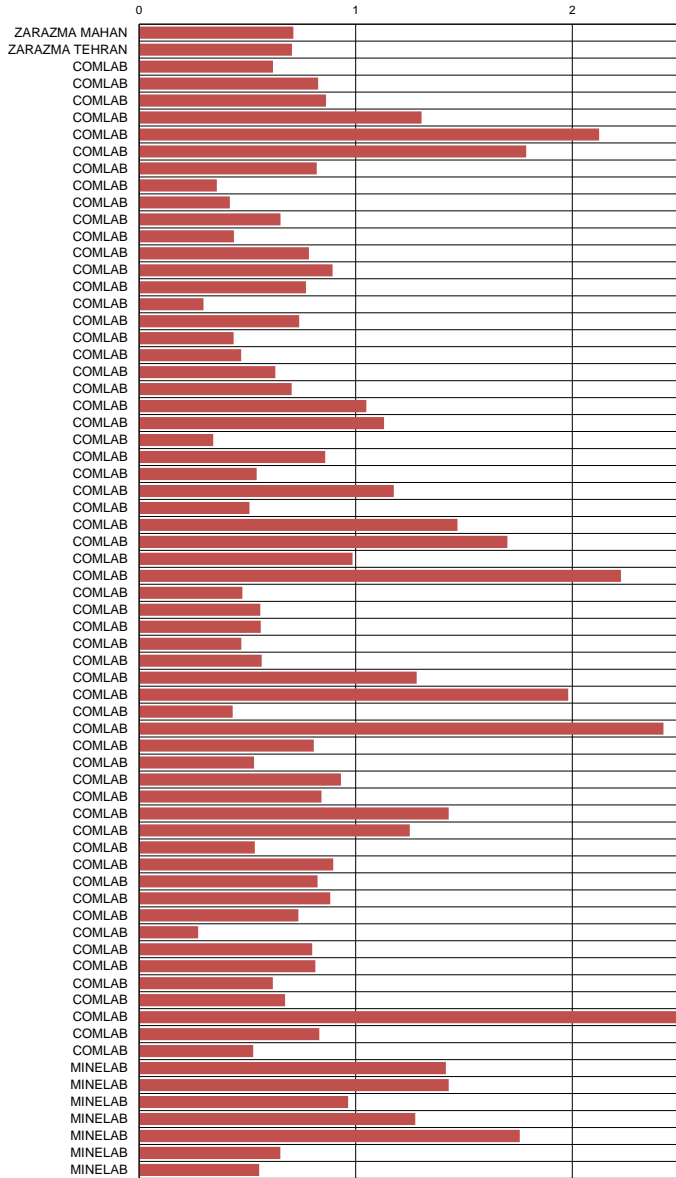
Standard Deviations

Standard Deviations

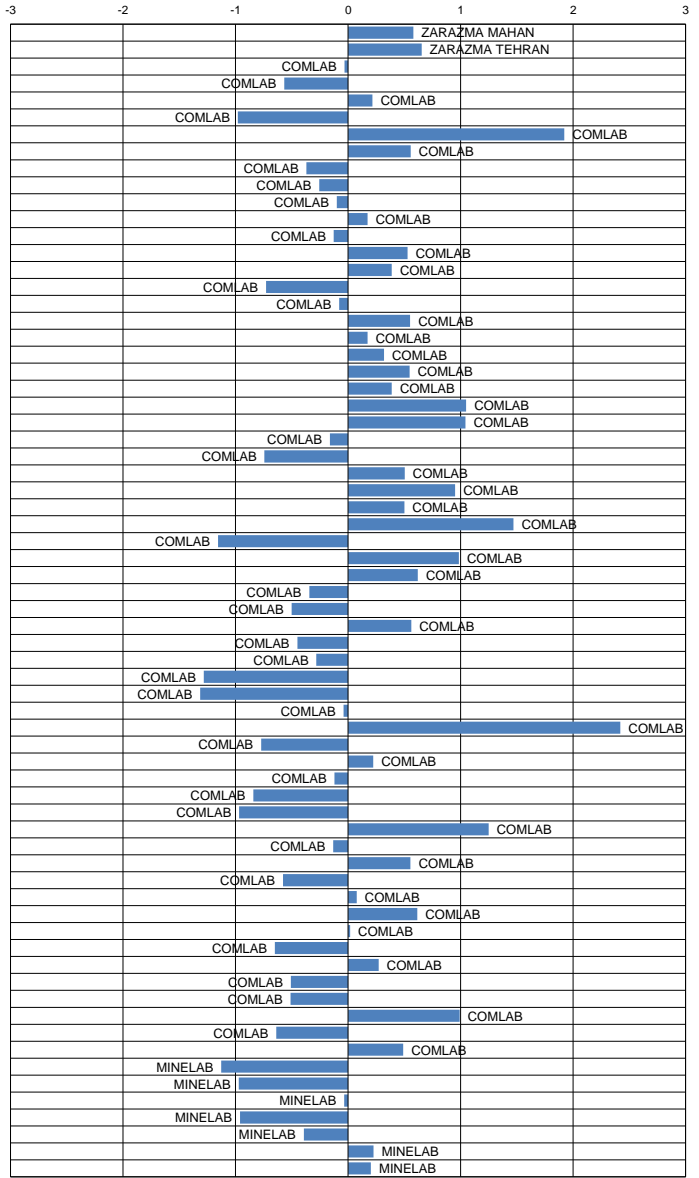




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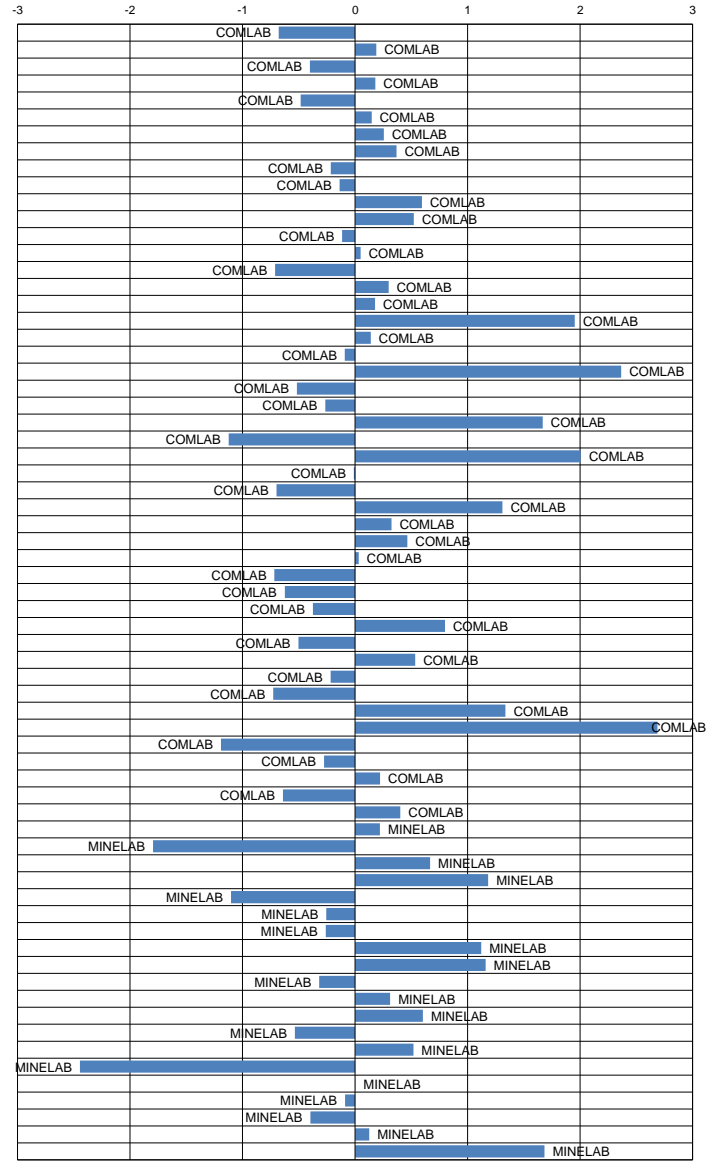
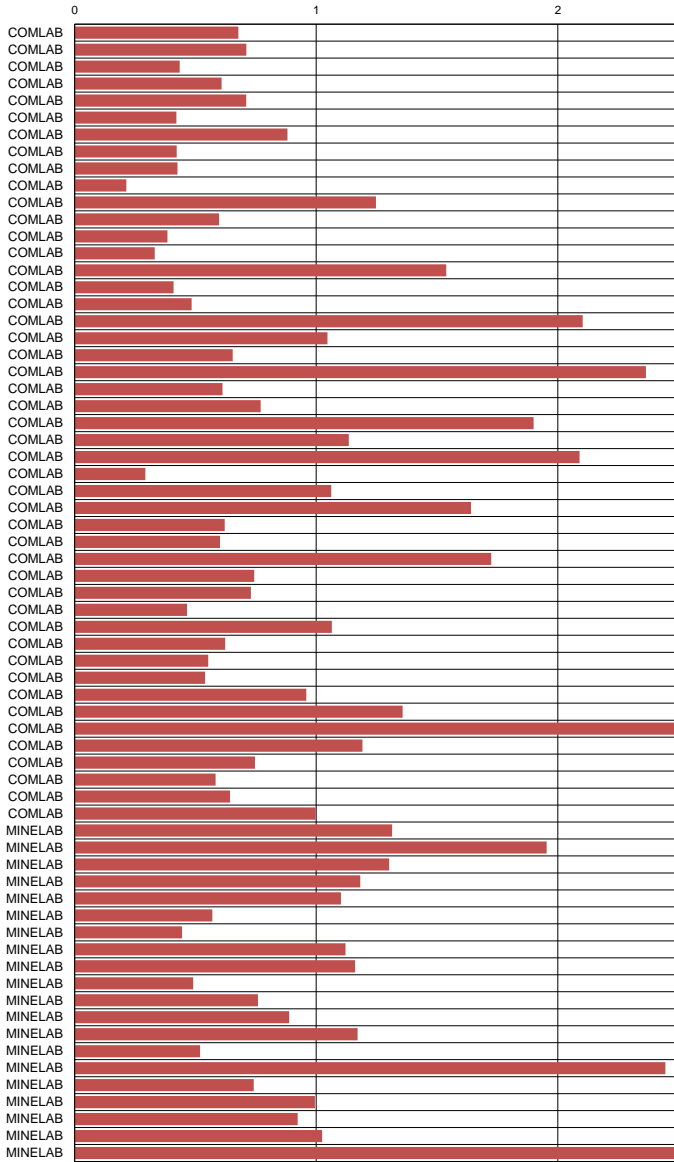
Standard Deviations





Standard Deviations

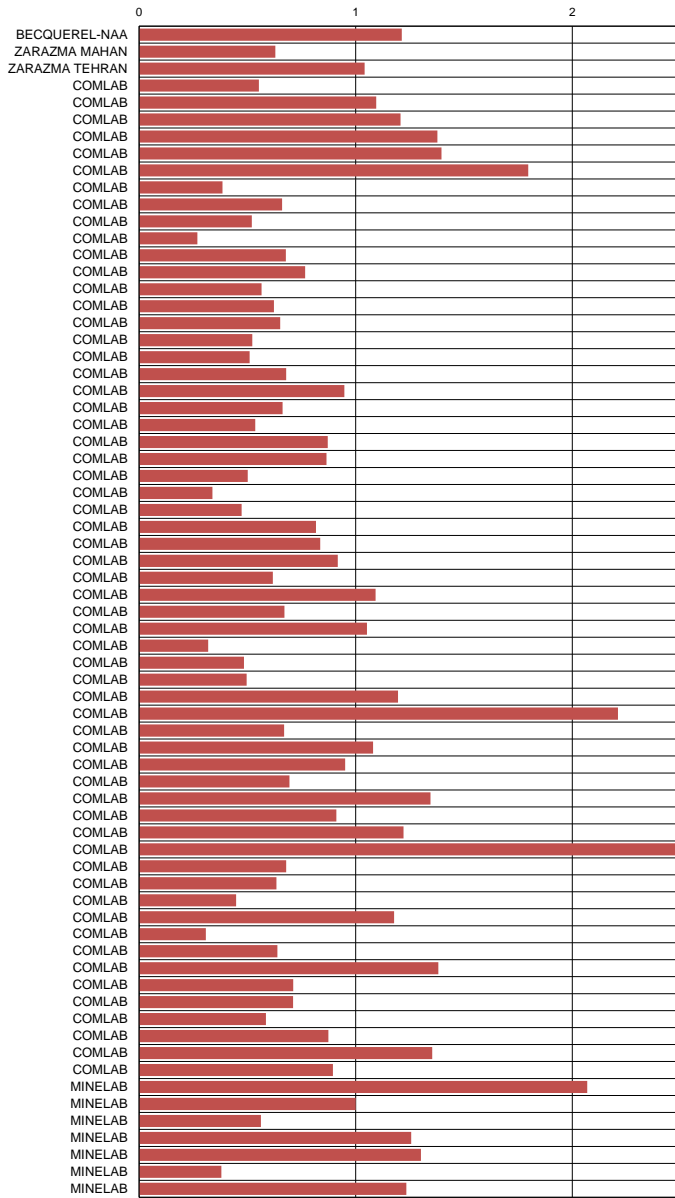
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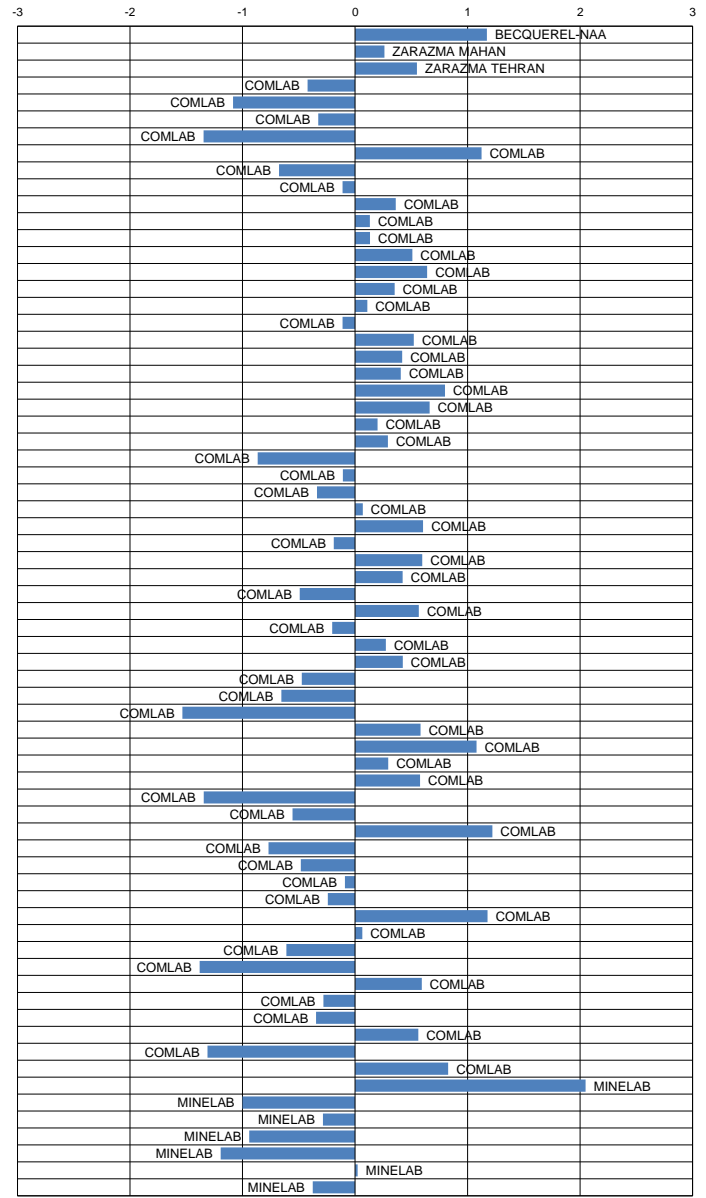




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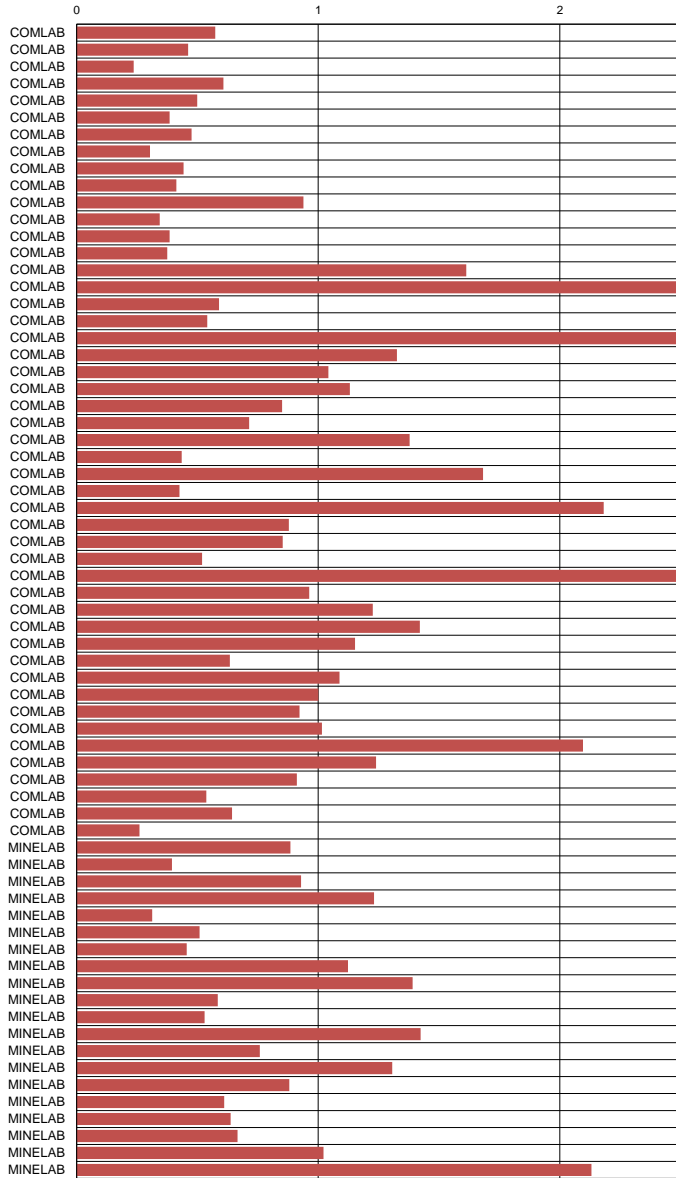


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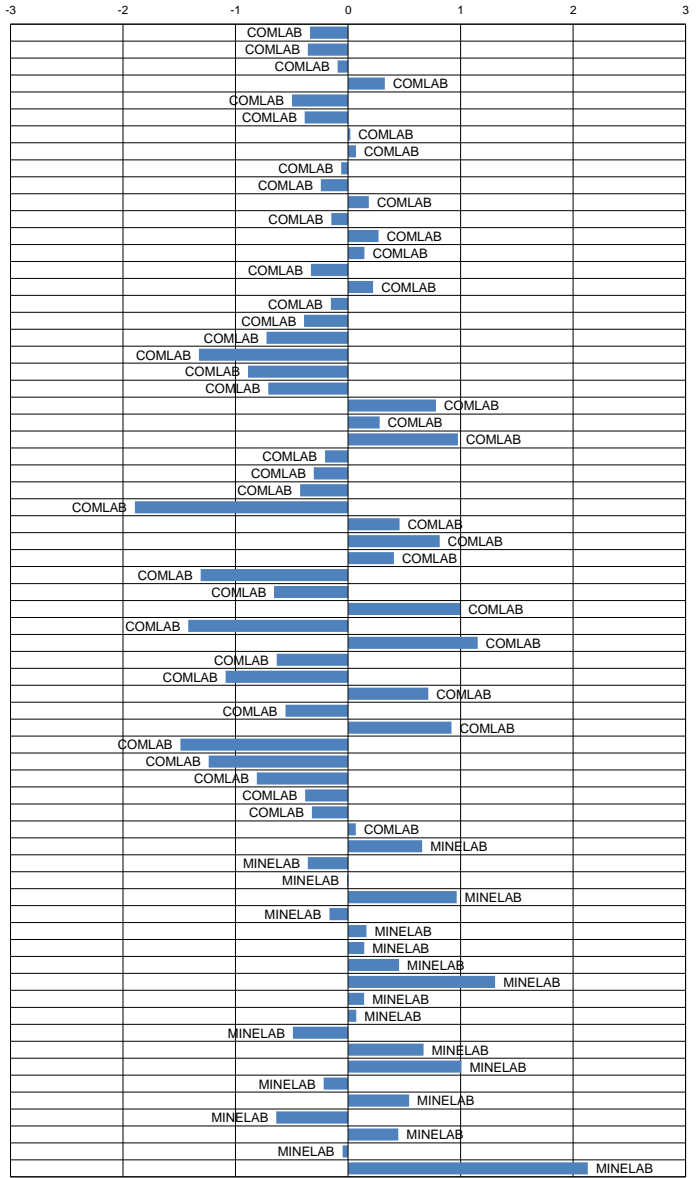




Standard Deviations



Standard Deviations

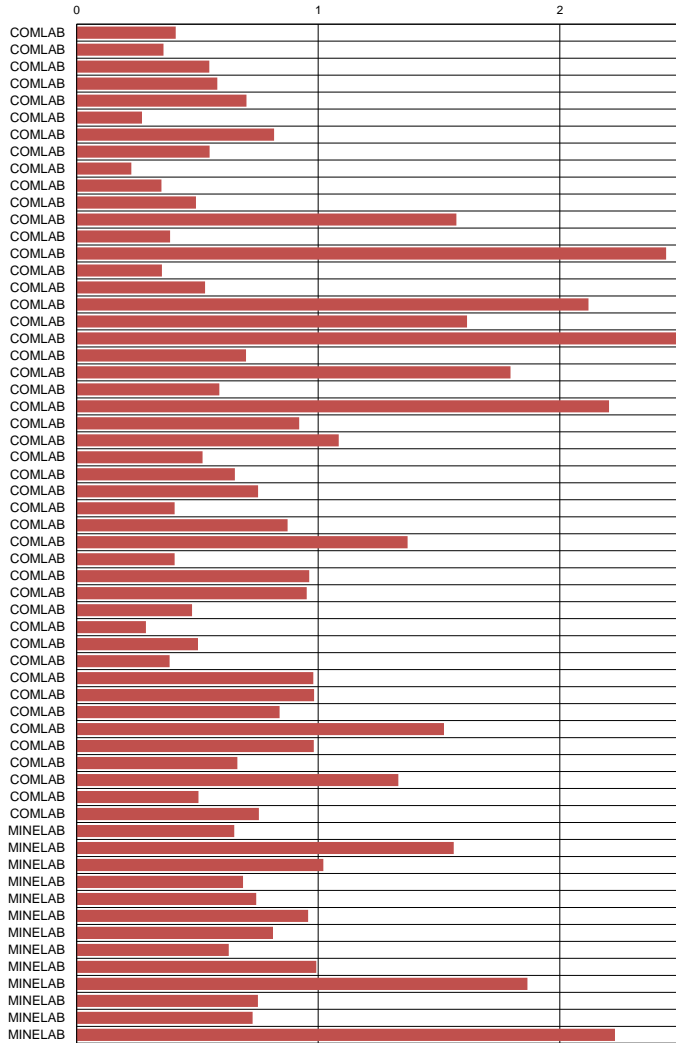




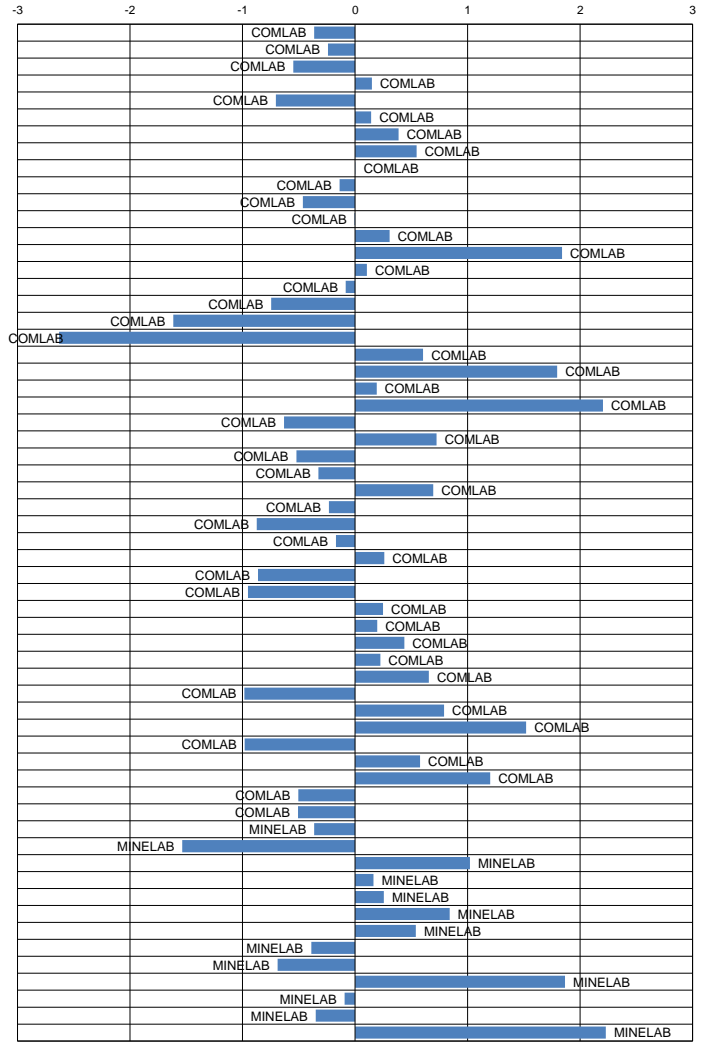




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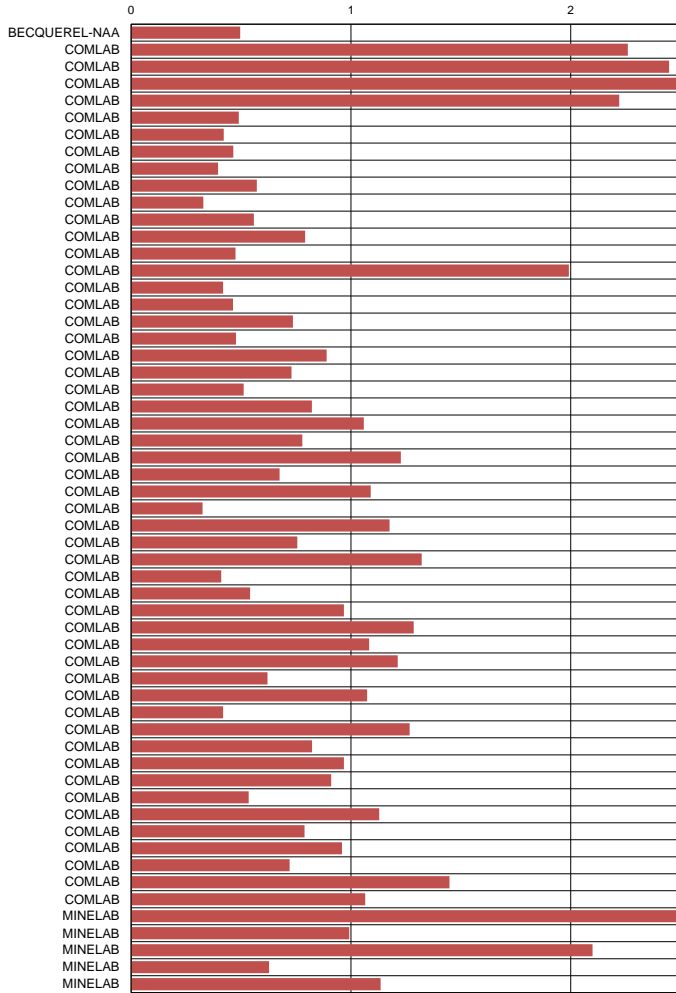
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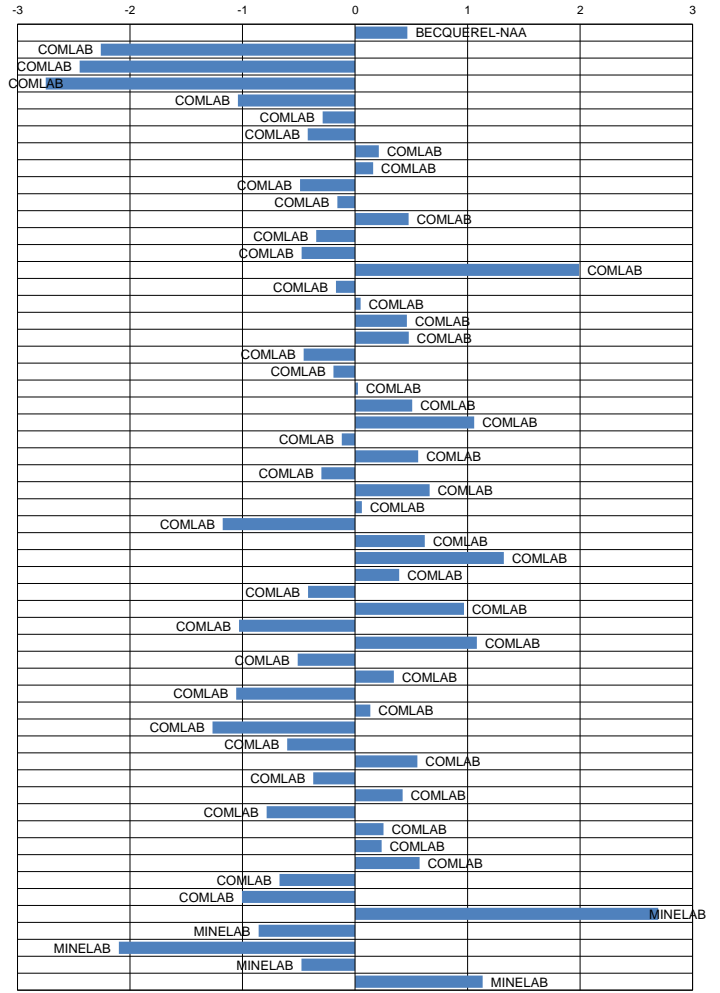




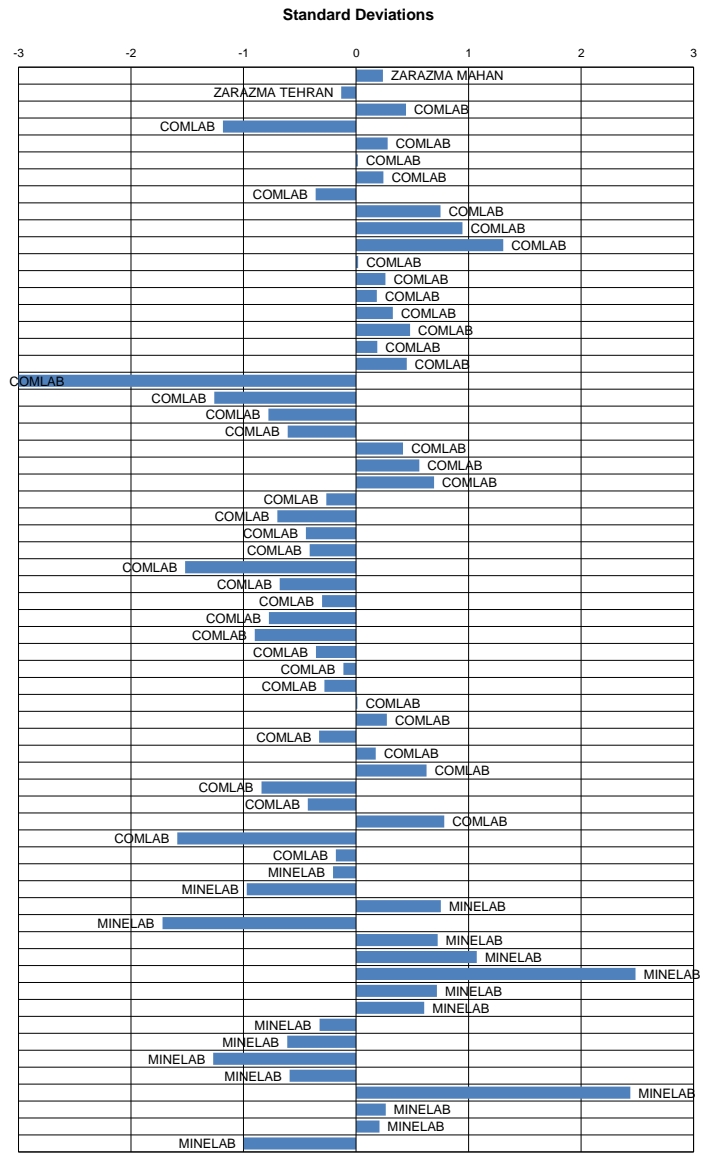
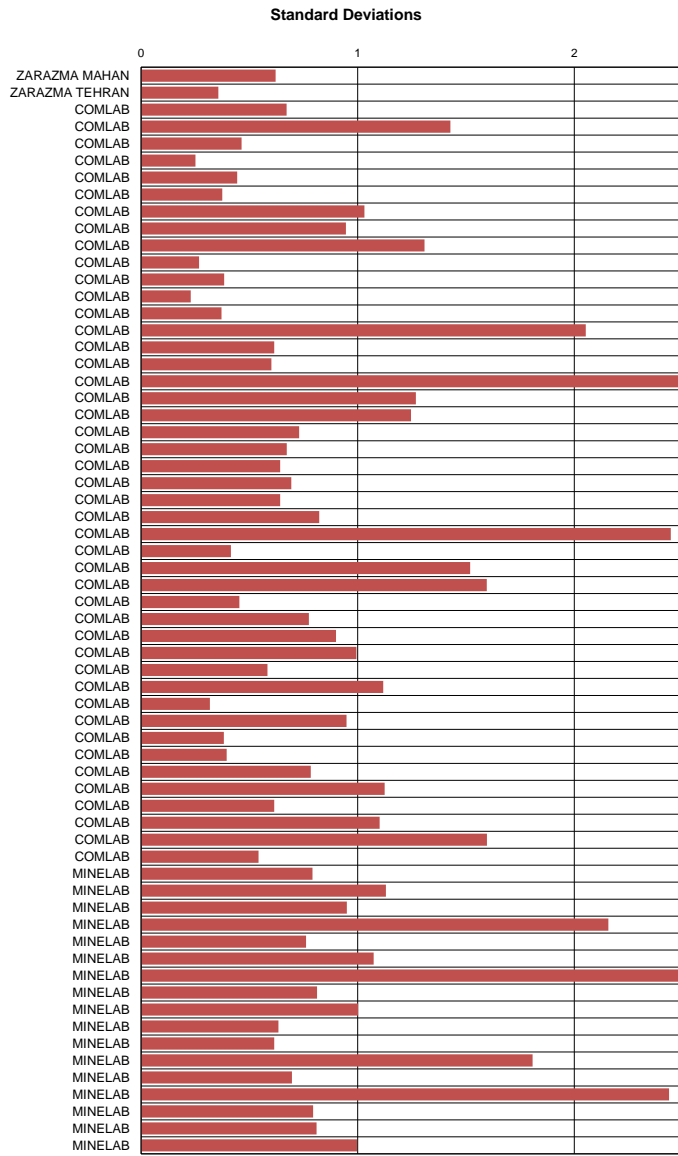
Standard Deviations



Standard Deviations

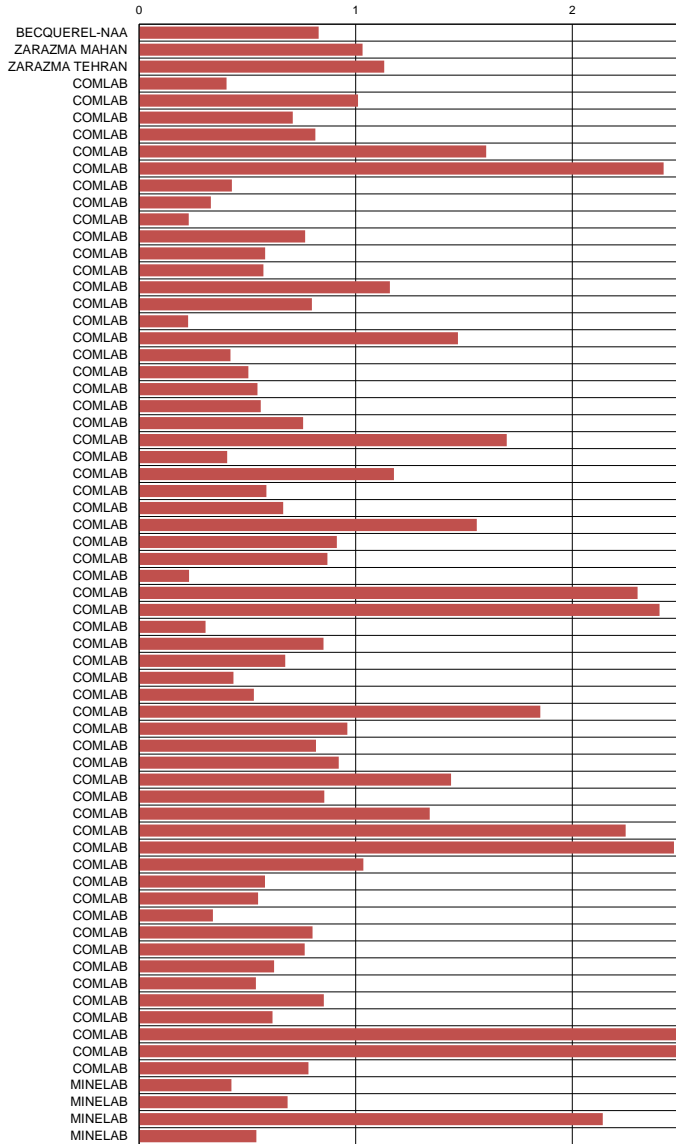




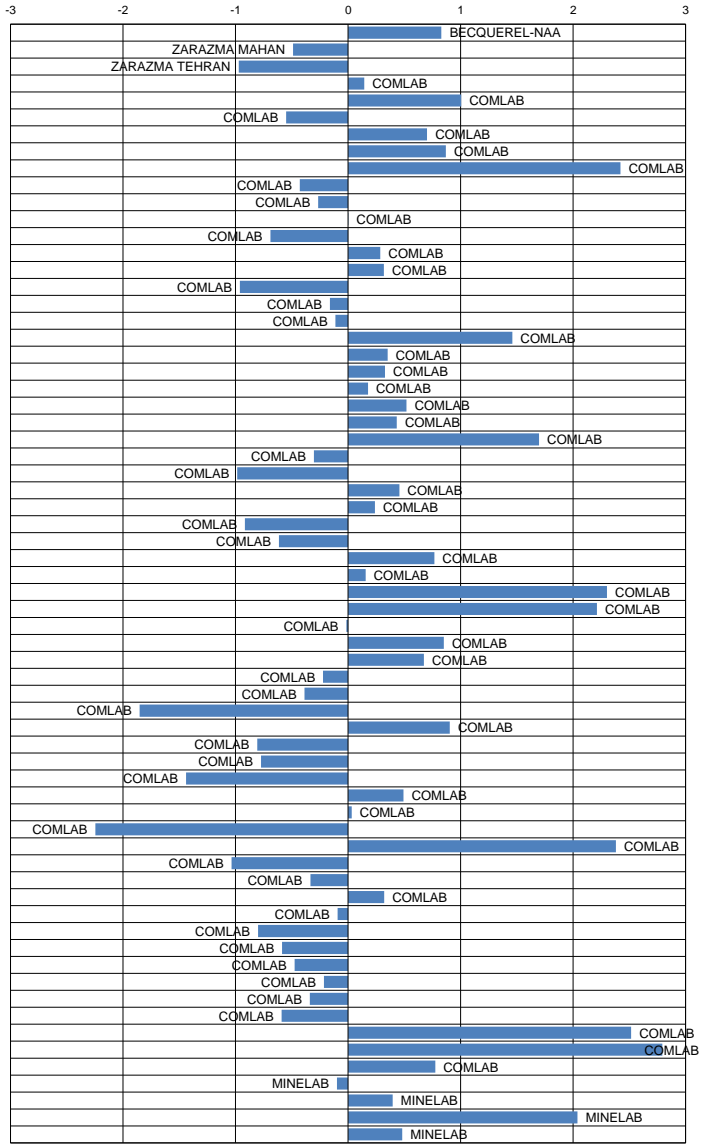




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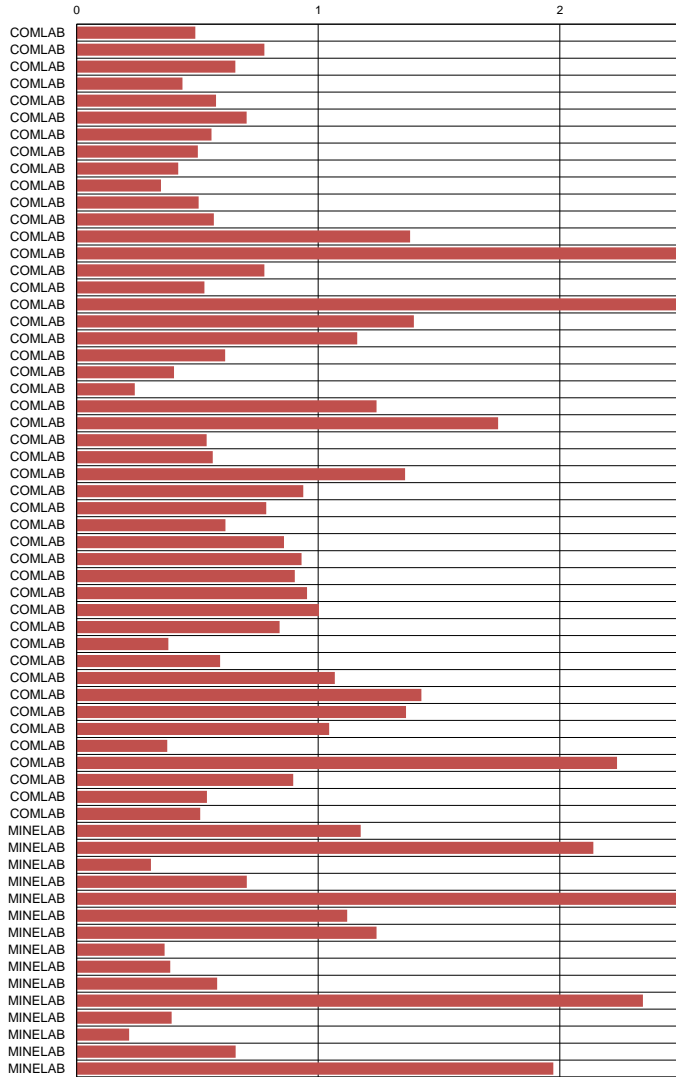


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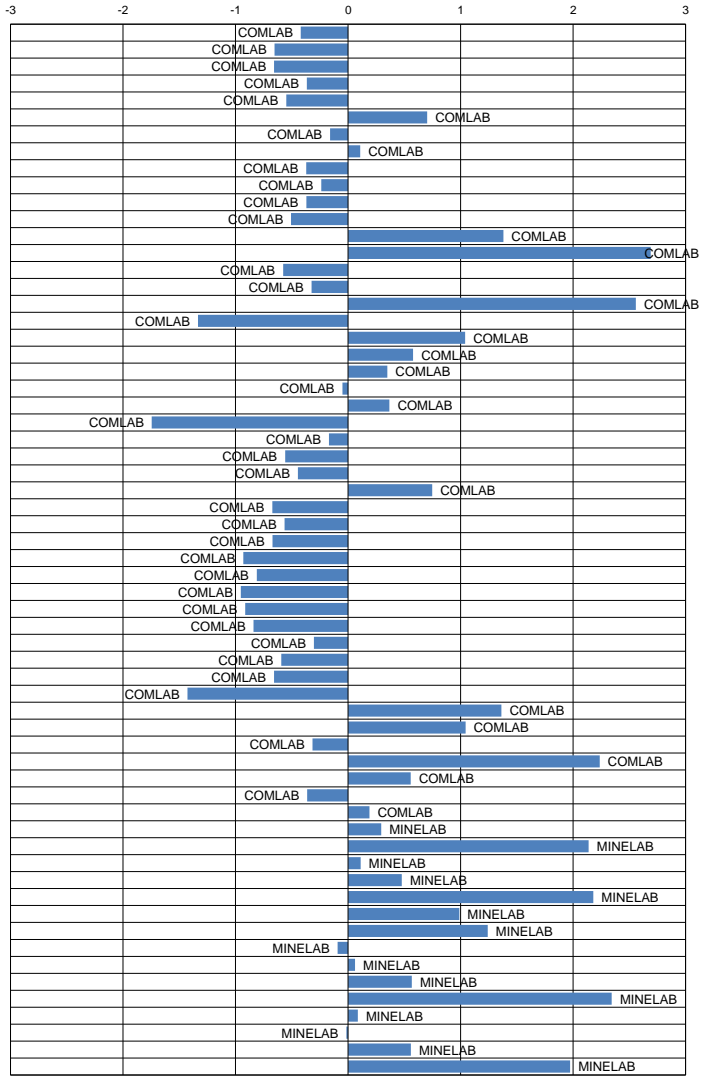




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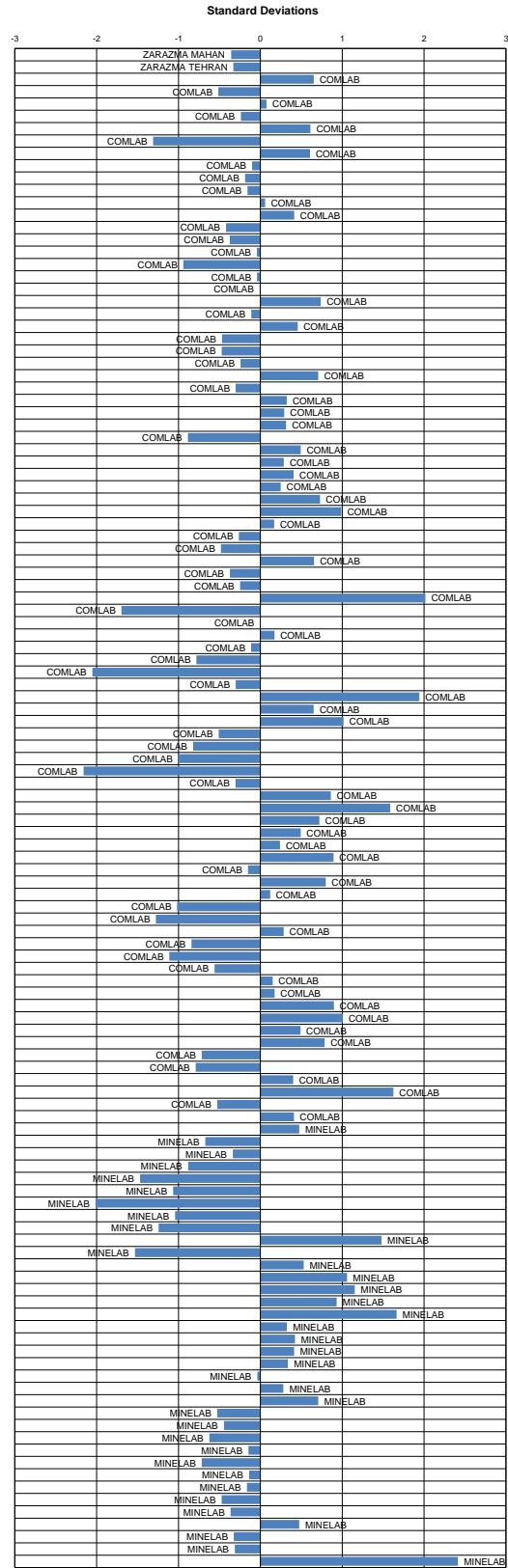
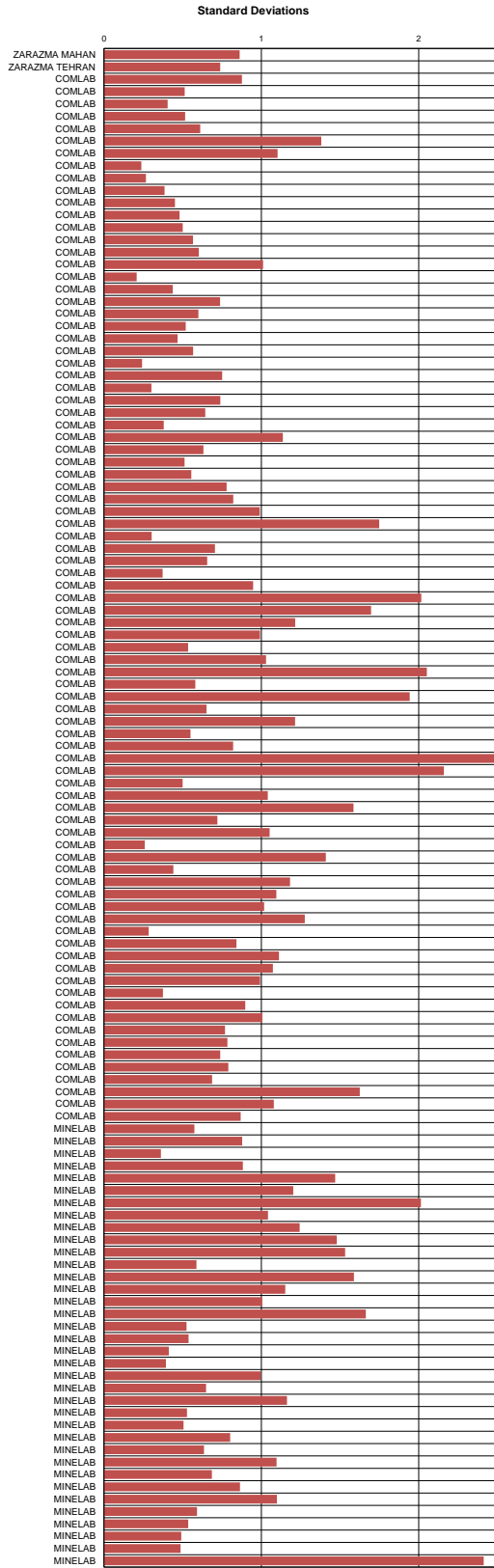


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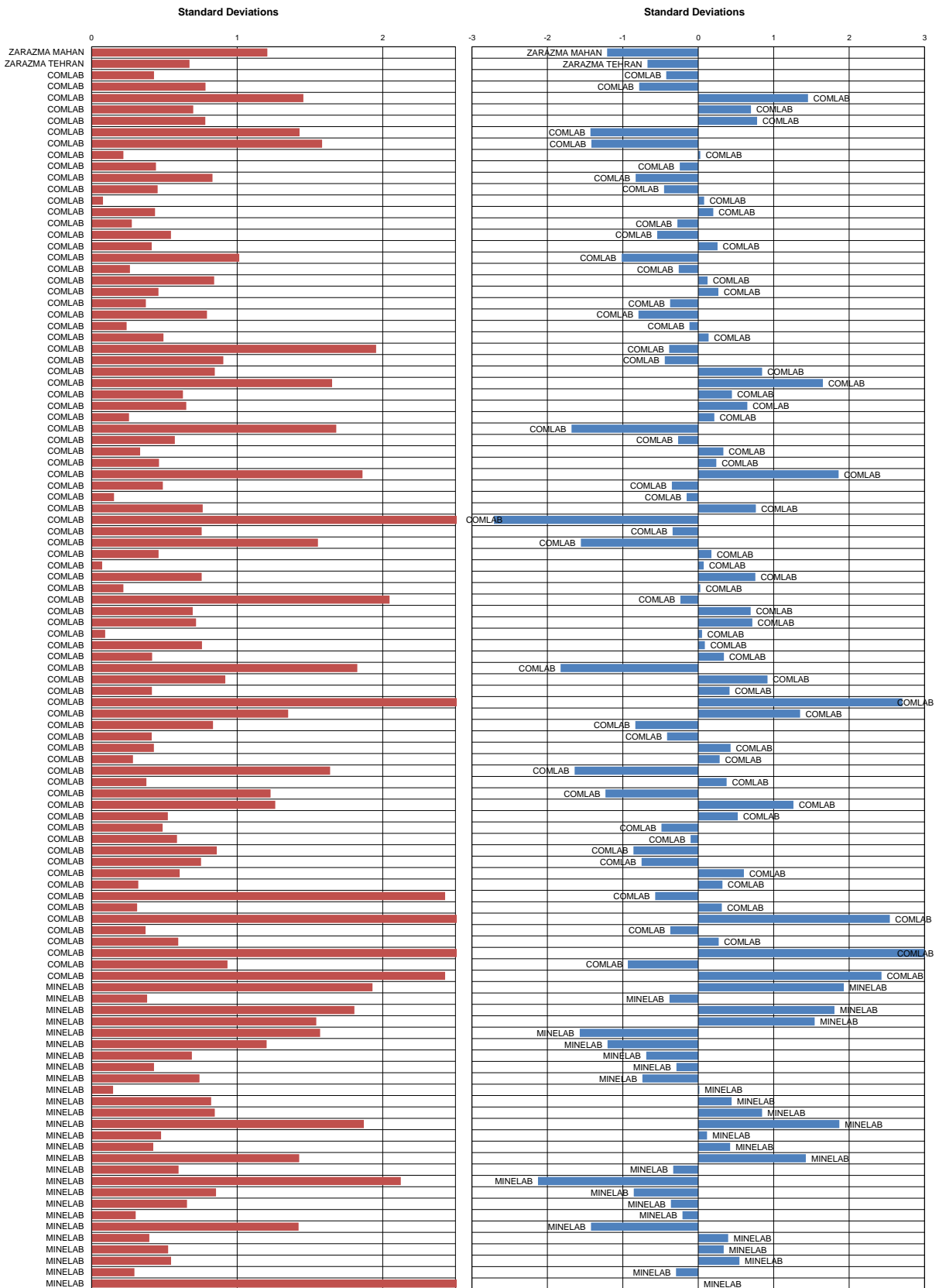




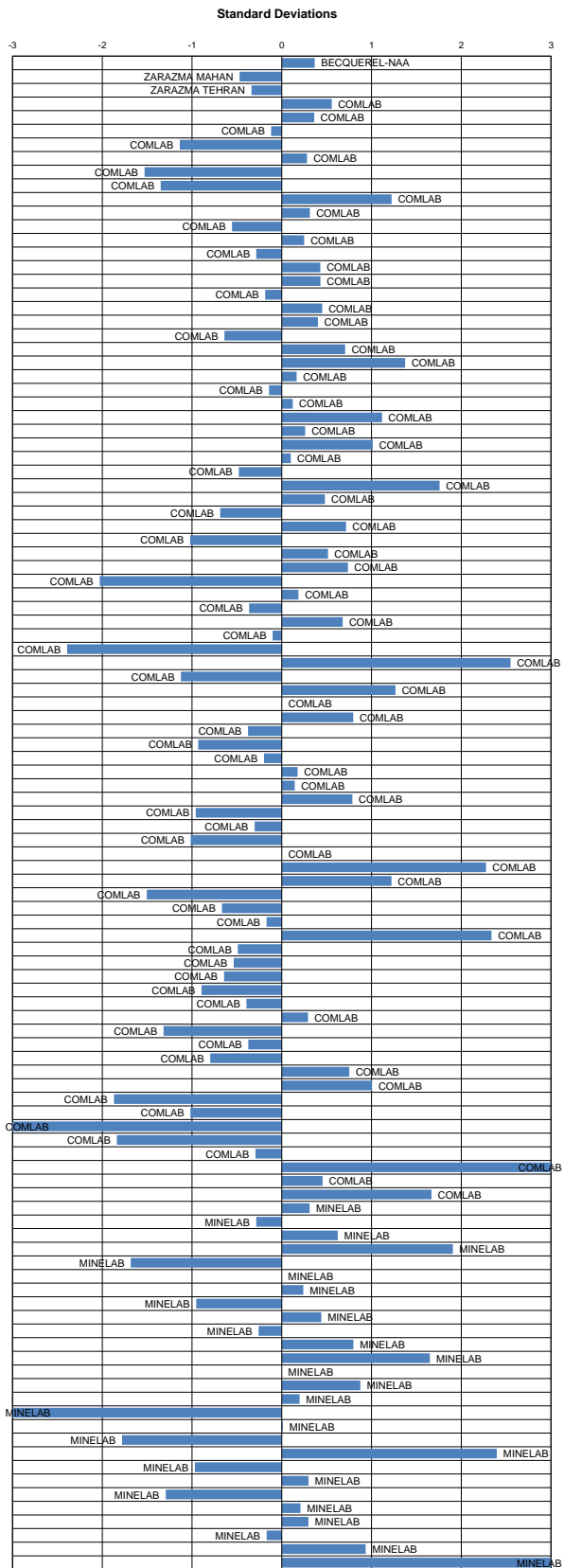
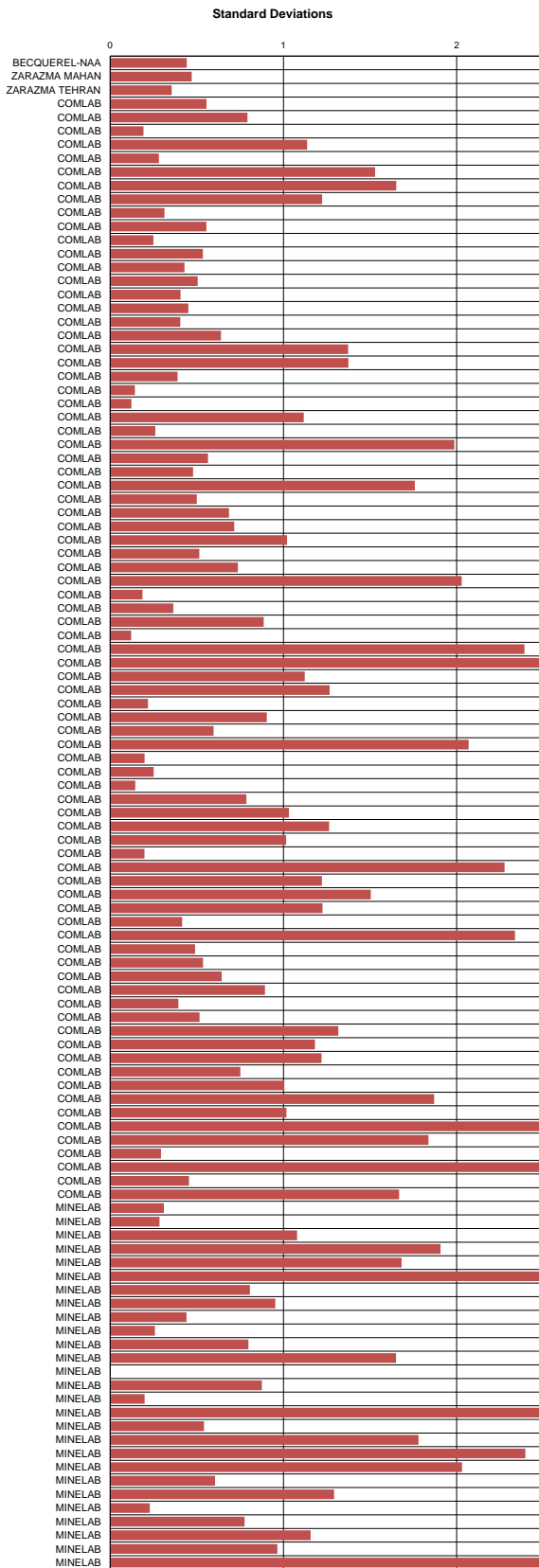




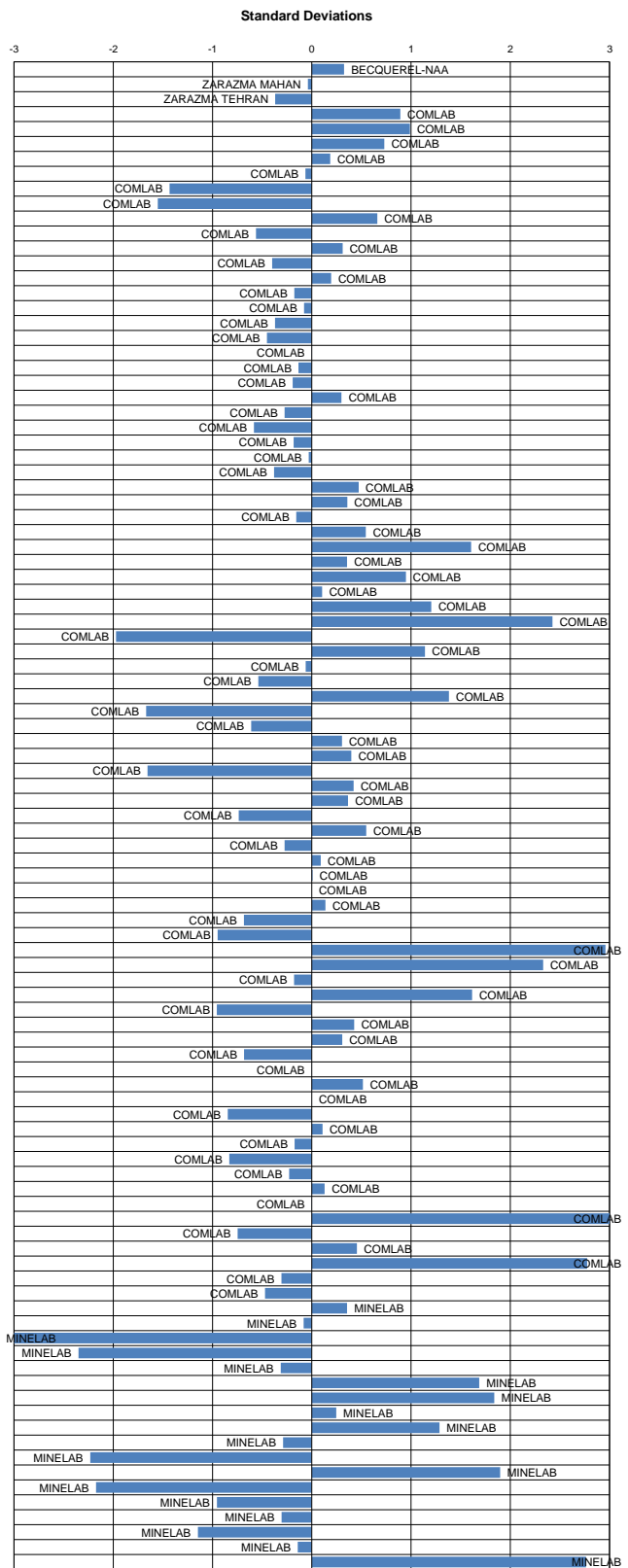
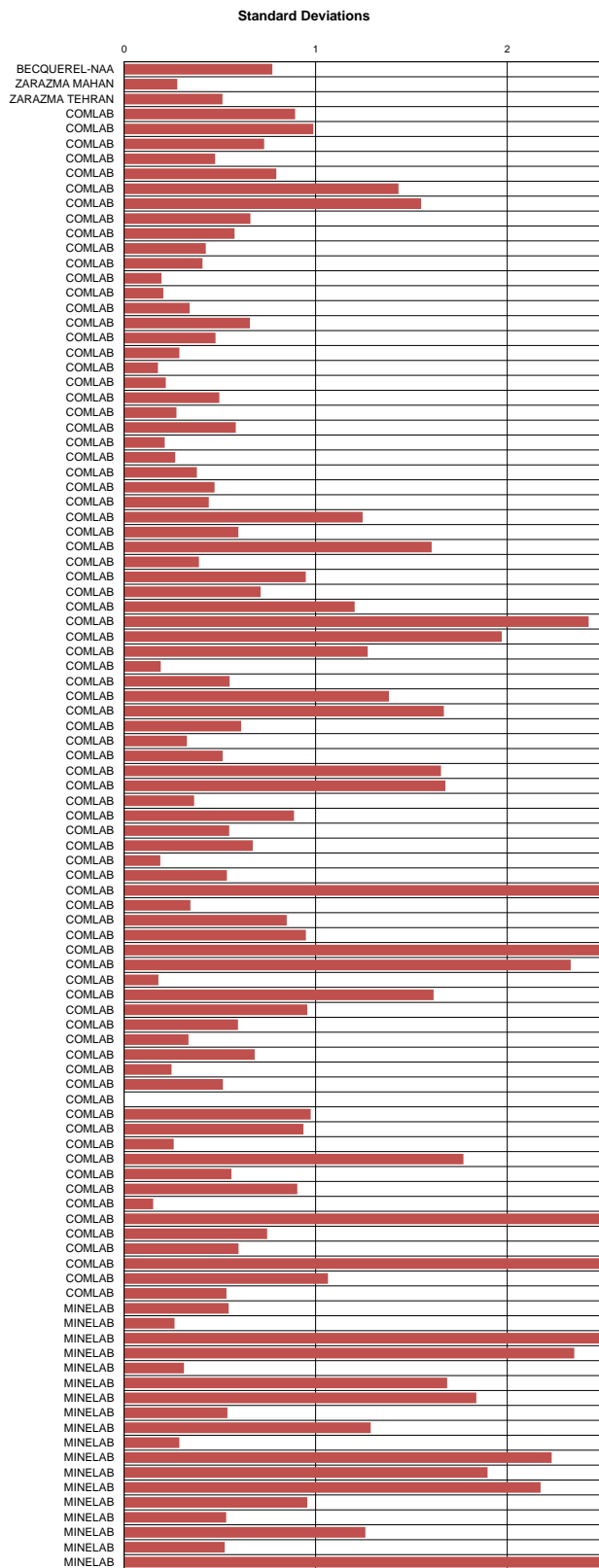










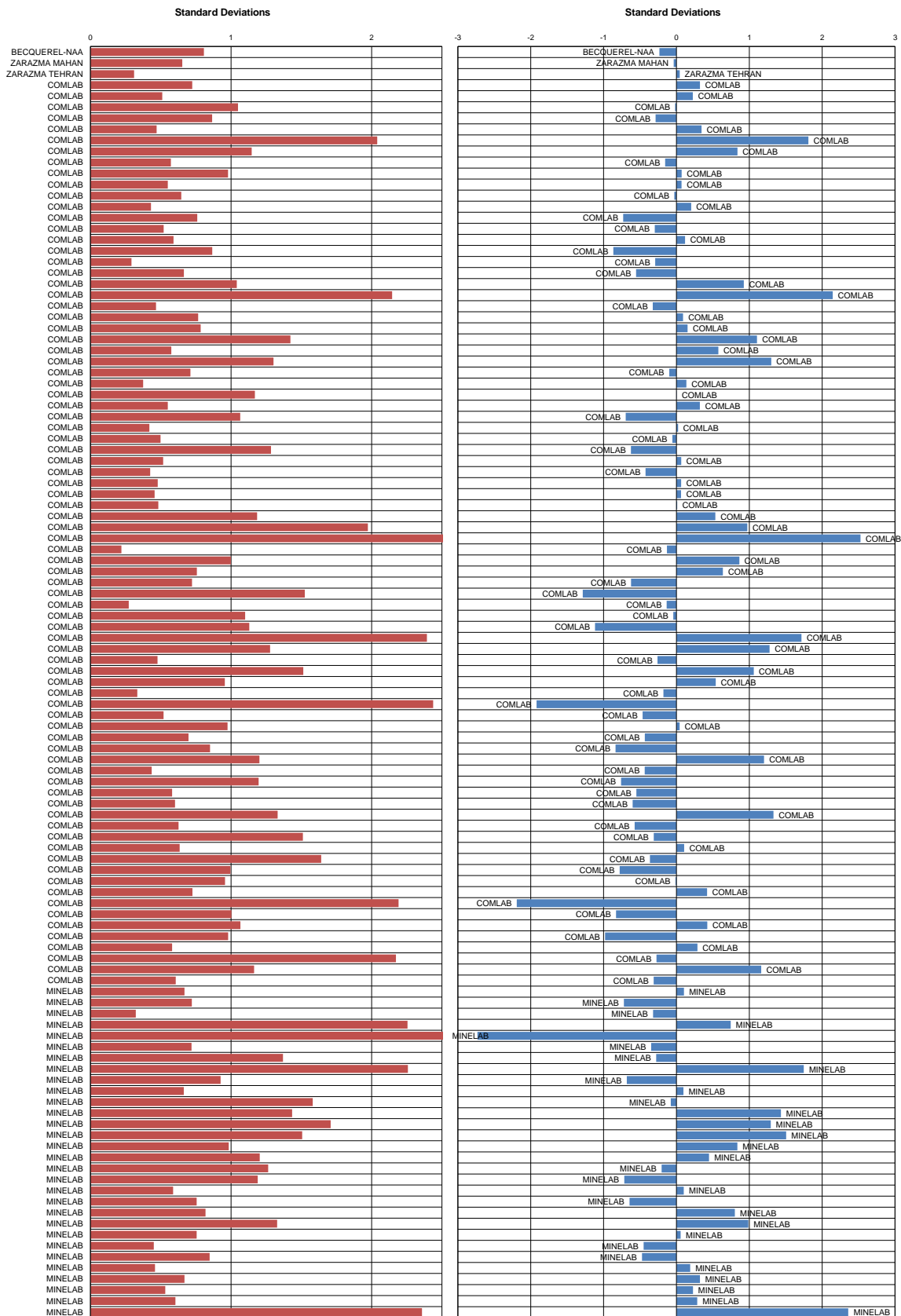




Ore Grade Silver Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2015

Standard Reference	GBM915-11	GBM915-12	GBM915-13	GBM915-14	GBM915-15	GBM915-16
MEAN (ppm)	4.3	2.5	182.9	18.5	11.9	51.2
STDEV (ppm)	0.5	0.4	7.1	1.4	1.0	3.4
95% CI (ppm)	0.1	0.1	1.4	0.3	0.2	0.6
95% CI (%)	2.46%	1.9	0.75%	1.46%	1.57%	1.24%
MIN (ppm)	3.0	1.9	164.3	14.5	10.0	43.0
MEDIAN (ppm)	4.2	2.5	183.0	18.7	12.0	51.0
MAX (ppm)	5.8	3.3	202.0	22.0	14.0	59.6
IQR (ppm)	0.7	0.7	6.7	1.6	1.3	4.9
COUNT	92	81	105	109	103	110

Standard Reference	GBM915-11		GBM915-12		GBM915-13		GBM915-14		GBM915-15		GBM915-16		Method	Reading
Lab Reference	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
BECOUEREL NAA	<5.0	bld	<5.0	bld	191.0	1.15	17.0	-1.08	11.0	-0.95	51.0	-0.05	NAA	
ZARAZMA MAHAN	4.3	-0.06	2.7	0.45	172.0	-1.53	19.3	0.53	12.8	0.97	49.5	-0.48	AR	ES
ZARAZMA TEHRAN	4.2	-0.25	2.5	-0.09	181.7	-0.17	18.9	0.25	12.7	0.82	50.2	-0.29	AR	ES
COMLAB	5.0	1.29	<3.0	bld	190.0	1.00	19.0	0.32	11.0	-0.95	51.0	-0.05	4A	ES
COMLAB	4.9	1.10	2.5	-0.09	182.0	-0.12	19.1	0.39	11.3	-0.64	53.6	0.72	4A	ES
COMLAB	4.8	0.91	2.9	0.94	164.3	-2.62	19.3	0.53	12.6	0.71	49.2	-0.58	AR	AAS
COMLAB	4.0	-0.63	<3.0	bld	182.0	-0.12	19.0	0.32	13.0	1.13	44.0	-2.12	4A	ES
COMLAB	4.7	0.72	3.0	1.20	183.0	0.02	19.0	0.32	12.1	0.19	49.9	-0.38	AR	ES
COMLAB	<b>7.0</b>	<b>3.00</b>	<b>5.0</b>	<b>3.00</b>	178.0	-0.69	21.0	1.72	<b>15.0</b>	<b>3.00</b>	54.0	0.84	4A	AAS
COMLAB	4.3	-0.06	2.2	-0.87	189.4	0.92	21.9	2.25	12.3	0.40	58.9	2.20	4A	ES
COMLAB	<5.0	bld	<5.0	bld	182.0	-0.12	18.0	-0.38	11.0	-0.95	54.0	0.84	3A	ES
COMLAB	5.0	1.29	2.0	-1.39	188.0	0.72	18.0	-0.38	11.0	-0.95	55.0	1.13	4A	ES
COMLAB	5.0	1.29	2.0	-1.39	184.0	0.16	19.0	0.32	12.0	0.09	51.0	-0.05	3A	AAS
COMLAB	4.0	-0.63	2.0	-1.39	184.0	0.16	19.0	0.32	13.0	1.13	52.0	0.24	4A	ES
COMLAB	4.0	-0.63	3.0	1.20	185.9	0.43	18.8	0.18	12.0	0.09	51.0	-0.05	4A	ES
COMLAB	4.0	-0.63	<b>1.0</b>	<b>-3.00</b>	180.0	-0.40	18.0	-0.38	12.0	0.09	51.0	-0.05	FUS	ES
COMLAB	4.0	-0.63	2.0	-1.39	187.0	0.58	18.0	-0.38	12.0	0.09	51.0	-0.05	4A	ES
COMLAB	4.0	-0.63	3.0	1.20	180.0	-0.40	18.0	-0.38	12.0	0.09	54.0	0.84	4A	ICP
COMLAB	4.0	-0.63	2.4	-0.35	180.2	-0.38	16.7	-1.29	10.0	-1.99	49.3	0.55	4A	ES
COMLAB	4.1	-0.44	2.4	-0.35	181.0	-0.26	18.2	-0.24	11.5	-0.43	51.1	-0.02	4A	ES
COMLAB	4.0	-0.63	2.0	-1.39	174.0	-1.25	18.0	-0.38	12.0	0.09	52.0	0.24	4A	AAS
COMLAB	<b>6.0</b>	<b>3.00</b>	3.0	1.20	192.0	1.29	19.0	0.32	12.0	0.09	50.0	-0.35	FUS	ES
COMLAB	<b>6.0</b>	<b>3.00</b>	<5.0	bld	200.0	2.41	21.0	1.72	14.0	2.17	56.0	1.43	3A	ES
COMLAB	4.0	-0.63	2.0	-1.39	183.0	0.02	19.0	0.32	12.0	0.09	50.0	-0.35	AR	ES
COMLAB	4.0	-0.63	2.0	-1.39	186.0	0.44	19.0	0.32	12.0	0.09	57.0	1.72	AR	ES
COMLAB	5.0	1.29	2.0	-1.39	192.0	-0.12	18.0	-0.38	12.0	0.09	56.0	1.43	4A	ES
COMLAB	4.0	-0.63	<b>4.0</b>	<b>3.00</b>	181.0	-0.26	22.0	2.42	14.0	2.17	51.0	-0.05	4A	AAS
COMLAB	5.0	1.29	3.0	1.20	185.0	0.30	19.0	0.32	12.0	0.09	52.0	0.24	AR	AAS
COMLAB	5.0	1.29	<b>4.0</b>	<b>3.00</b>	187.0	0.58	21.0	1.72	12.0	0.09	55.0	1.13	AR	AAS
COMLAB	4.0	-0.63	2.0	-1.39	180.0	-0.40	19.0	0.32	12.0	0.09	56.0	1.43	4A	ES
COMLAB	4.7	0.72	2.8	0.68	183.8	0.13	18.4	-0.10	11.4	-0.54	50.9	-0.08	FA	GRAV
COMLAB	4.0	-0.63	3.0	1.20	172.0	-1.53	18.0	-0.38	11.0	-0.95	59.0	2.32	4A	ES
COMLAB	4.0	-0.63	3.0	1.20	190.0	1.00	19.0	0.32	12.0	0.09	51.0	-0.05	4A	ES
COMLAB	3.0	-2.96	2.0	-1.39	189.0	0.66	18.0	-0.38	11.0	-0.95	52.0	0.24	4A	AAS
COMLAB	4.2	-0.25	2.6	0.17	180.0	0.00	19.6	0.74	11.4	-0.54	52.6	0.42	3A	ES
COMLAB	4.0	-0.63	<4.0	bld	180.0	-0.40	20.0	1.02	12.0	0.09	50.0	-0.35	AR	AAS
COMLAB	<5.0	bld	<5.0	bld	185.0	0.30	20.0	1.02	10.0	-1.99	45.0	-1.83	4A	ES
COMLAB	4.3	-0.06	2.5	-0.09	185.0	0.30	19.3	0.53	12.8	0.92	47.1	-1.21	4A	MS
COMLAB	4.0	-0.63	2.5	-0.09	182.0	-0.12	18.5	-0.03	11.5	-0.43	47.0	-1.23	4A	MS
COMLAB	4.5	0.33	2.8	0.68	182.0	-0.12	19.0	0.32	12.2	0.30	47.4	-1.12	4A	MS
COMLAB	4.5	0.33	2.5	-0.09	185.0	0.30	19.0	0.32	12.5	0.61	47.5	-1.09	4A	ES
COMLAB	4.5	0.33	2.7	0.43	188.0	0.72	18.2	-0.24	11.8	-0.12	47.6	-1.06	4A	AAS
COMLAB	5.1	1.49	2.8	0.68	189.0	0.69	19.2	0.46	13.2	1.24	55.2	1.19	4A	AAS
COMLAB	5.3	1.81	<b>4.0</b>	<b>3.00</b>	196.0	1.85	19.0	0.32	13.7	1.86	<b>36.4</b>	<b>-3.00</b>	4A	MS ES
COMLAB	<b>7.6</b>	<b>3.00</b>	<b>6.2</b>	<b>3.00</b>	195.3	1.75	<b>25.1</b>	<b>3.00</b>	<b>17.6</b>	<b>3.00</b>	55.9	1.41	AR	AAS
COMLAB	4.1	-0.46	2.5	-0.07	184.0	0.16	18.7	0.11	11.8	-0.12	49.8	-0.41	4A	ICP
COMLAB	5.0	1.29	3.0	1.20	180.0	-0.40	21.0	1.72	13.0	1.13	52.0	0.24	4A	ES
COMLAB	4.4	0.14	2.5	-0.09	181.0	-0.26	19.6	0.74	12.7	0.82	59.6	2.49	4A	MS
COMLAB	3.8	-1.02	2.1	-1.13	185.0	0.30	17.7	-0.59	11.4	-0.54	48.6	-0.76	4A	ES, AAS
COMLAB	4.7	0.72	2.4	-0.35	<b>156.7</b>	<b>-3.00</b>	15.8	-1.92	10.6	-1.37	45.1	-1.80	3A, 4A	AAS
COMLAB	4.1	-0.44	2.3	-0.61	181.7	-0.17	18.7	0.11	12.2	0.30	51.2	0.01	4A	ES
COMLAB	4.9	1.10	3.3	1.98	<b>150.0</b>	<b>-3.00</b>	18.0	-0.38	12.0	0.09	51.0	-0.05	AR	ES
COMLAB	3.8	-1.06	2.2	-0.87	177.9	-0.70	15.5	-2.12	10.0	-1.99	51.3	0.04	AR	AAS
COMLAB	<b>10.2</b>	<b>3.00</b>	<b>7.0</b>	<b>3.00</b>	168.5	-2.03	<b>24.3</b>	<b>3.00</b>	<b>19.5</b>	<b>3.00</b>	52.3	0.33	AR	AAS
COMLAB	5.0	1.29	3.0	1.20	191.0	1.15	20.0	1.02	14.0	2.17	54.0	0.84	AR	ES
COMLAB	4.1	-0.44	2.5	-0.09	171.0	-1.67	19.0	0.32	12.0	0.09	52.0	0.24	4A	ICP
COMLAB	<b>6.2</b>	<b>3.00</b>	<b>4.2</b>	<b>3.00</b>	180.5	-0.33	20.1	1.12	12.5	0.61	47.7	-1.02	AR	AAS
COMLAB	5.0	1.29	3.0	1.20	174.0	-1.25	19.0	0.32	13.0	1.13	53.0	0.54	4A	AAS
COMLAB	4.2	-0.25	2.6	0.17	185.0	0.30	17.5	-0.73	11.4	-0.54	51.1	-0.02	AR	AAS
COMLAB	5.0	1.29	<5.0	bld	<b>151.0</b>	<b>-3.00</b>	15.0	-2.48	<b>9.0</b>	<b>-3.00</b>	43.0	-2.42	4A	ES
COMLAB	4.3	-0.06	2.6	0.17	178.3	-0.64	17.6	-0.66	11.4	-0.54	47.6	-1.06	3A	AAS
COMLAB	3.6	-1.40	2.0	-1.39	190.4	1.06	19.5	0.67	12.5	0.61	53.6	0.72	3A	ICP
COMLAB	4.0	-0.63	2.0	-1.39	186.7	0.54	18.9	0.25	11.1	-0.85	49.4	-0.52	4A	ES
COMLAB	3.9	-0.83	2.4	-0.35	183.2	0.05	15.9	-1.83	10.6	-1.37	48.9	-0.68	4A	ES
COMLAB	4.5	0.33	<3.0	bld	192.0	1.29	20.9	1.64	13.5	1.68	54.8	1.07	4A	ICP
COMLAB	4.2	-0.25	2.4	-0.30	179.7	-0.45	17.0	-1.10	11.8	-0.09	49.7	-0.43	AR	AAS
COMLAB	3.7	-1.21	1.9	-1.85	173.0	-1.39	17.3	-0.87	11.2	-0.74	55.6	1.31	AR	AAS
COMLAB	3.0	-1.29	2.4	-0.35	183.5	0.09	17.5	-0.36	11.0	-0.99	50.9	-0.07	4A	AAS
COMLAB	3.8	-1.02	2.2	-0.87	181.0	-0.26	17.6	-0.66	11.2	-0.74	51.0	-0.05	4A	AAS
COMLAB	<5.0	bld	<5.0	bld	191.0	1.15	19.5	0.65	12.4	0.53	<b>63.3</b>	<b>3.00</b>	4A	AAS
COMLAB	4.0	-0.63	2.3	-0.61	184.0	0.16	17.6	-0.66	11.5	-0.43	46.9	-1.26	3A, 4A	AAS
COMLAB	<b>6.0</b>	<b>3.00</b>	<5.0	bld	179.0	-0.55	17.0	-1.08	10.0	-1.99	48.0	-0.94	4A	AAS
COMLAB	4.0	-0.63	3.0	1.20	184.0	0.16	19.0	0.32	11.0	-0.95	53.0	0.54	AR	MS
COMLAB	<3.0	bld	<3.0	bld	201.0	2.56	17.0	-1.08	10.0	-1.99	48.0	-0.94	4A	ES
COMLAB	3.0	-2.96	<2.0	bld	179.0	-0.55	18.0	-0.38	11.0	-0.95	53.0	0.54	4A	ICP
COMLAB	nr	nr	2.1	-1.13	192.0	1.29	18.2	-0.24	10.9	-1.06	54.8	1.07	3A	AAS
COMLAB	4.6	0.52	3.0	1.20	191.2	1.17	18.3	-0.17	11.2	-0.74	53.0	0.54	4A	ES
COMLAB	bld	bld	bld	bld	<b>159.8</b>	<b>-3.00</b>	bld	bld	bld	bld	46.5	-1.38	4A	ES
COMLAB	4.6	0.52	2.4	-0.35	168.9	-1.97	17.3	-0.87	10.8	-1.16	47.3	-1.15	AR	AAS
COMLAB	5.0	1.29	3.0	1.20	175.0	-1.11	19.9	0.95	12.9	1.02	48.4	-0.82	3A	ICP
COMLAB	3.9	-0.75	2.1	-1.10	182.0	-0.12	15.8	-1.92	10.2	-1.78	50.5	-0.20	AR	AAS
COMLAB	4.5	0.33	2.7	0.43	nr	nr	19.7	0.81	12.5	0.61	48.7	-0.73	4A	AAS
COMLAB	4.0	-0.63	<b>4.1</b>	<b>3.00</b>	202.0	2.70	14.5	-2.82	<b>6.2</b>	<b>-3.00</b>	48.2	-0.88	3A	ES
COMLAB	5.0	1.29	2.9	0.94	191.0	1.15	2							

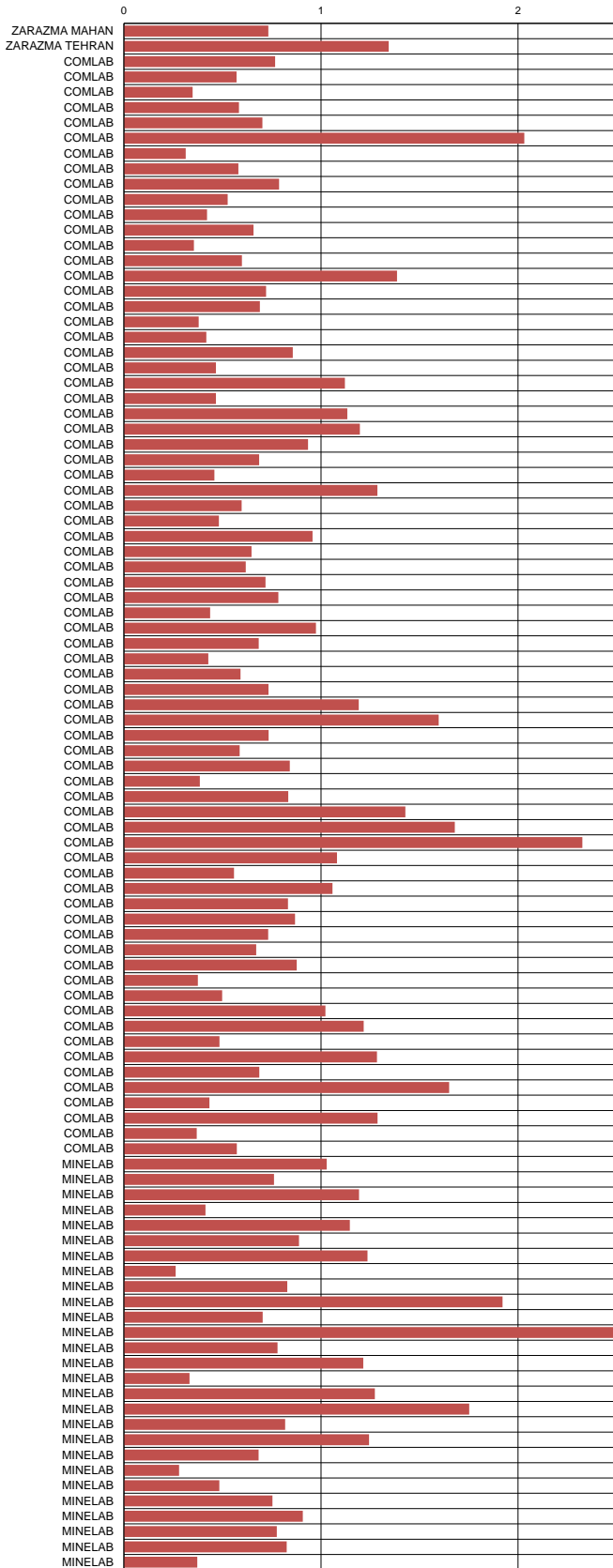


Ore Grade Sulphur Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2015

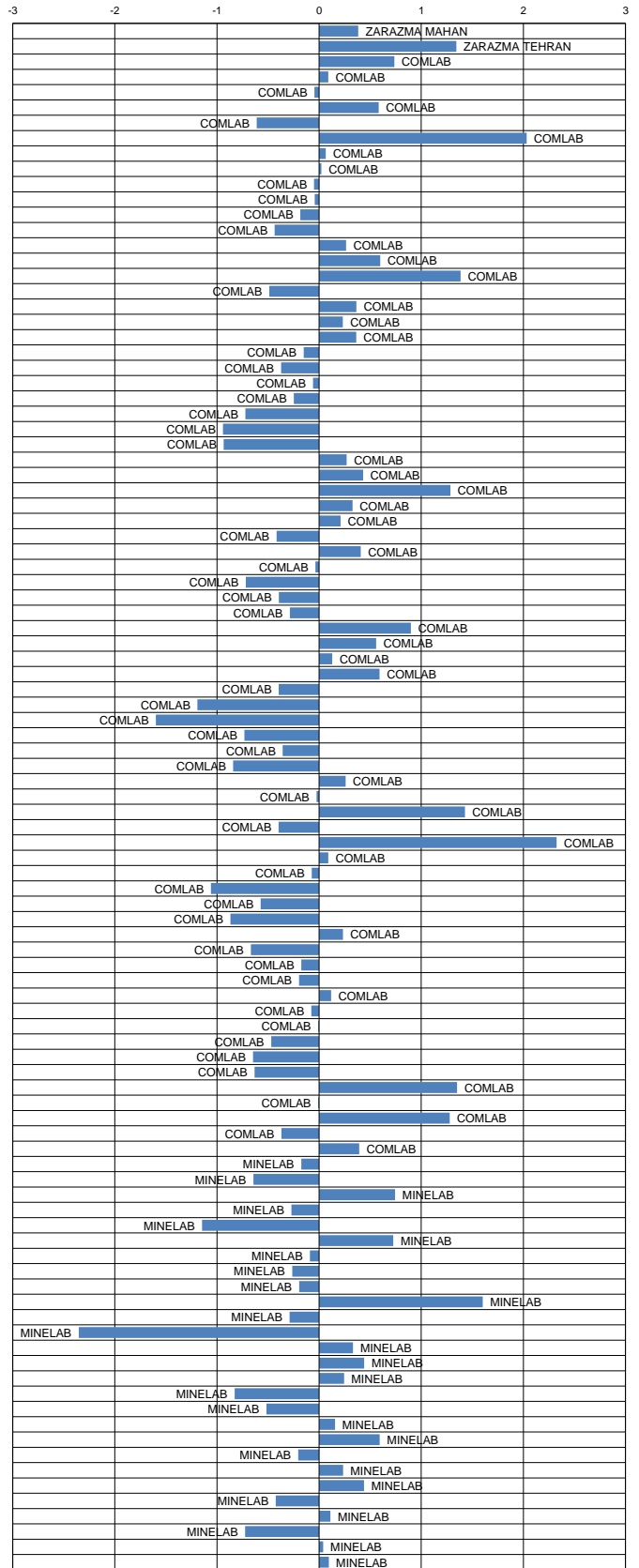
Standard Reference	GBM915-11	GBM915-12	GBM915-13	GBM915-14	GBM915-15	GBM915-16
MEAN (%)	6.95	6.35	28.99	2.08	1.29	3.88
STDEV (%)	0.29	0.22	1.09	0.14	0.12	0.13
95% CI (%)	0.06	0.04	0.22	0.03	0.02	0.03
95% CI (rel %)	0.82%	0.70%	0.77%	1.36%	1.78%	0.68%
MIN (%)	6.20	5.80	26.22	1.77	0.97	3.59
MEDIAN (%)	6.91	6.36	29.00	2.10	1.32	3.89
MAX (%)	7.77	6.89	32.00	2.45	1.59	4.20
IQR (%)	0.31	0.27	1.35	0.22	0.17	0.17
COUNT	100	98	94	98	98	96

Standard Reference	GBM915-11		GBM915-12		GBM915-13		GBM915-14		GBM915-15		GBM915-16		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
ZARAZMA MAHAN	7.03	0.28	6.46	0.48	27.85	-1.05	2.24	1.09	1.35	0.53	4.01	0.97	AR	ES
ZARAZMA TEHRAN	7.13	0.65	6.55	0.90	29.87	0.81	2.34	1.83	1.46	-1.44	4.20	2.43	AR	ES
COMLAB	7.19	0.85	6.61	1.15	30.80	1.66	2.13	0.36	1.28	-0.09	3.95	0.51	CSA	IR
COMLAB	6.84	-0.37	6.71	1.59	28.27	-0.66	2.02	-0.42	1.33	0.34	3.89	0.05	CSA	IR
COMLAB	6.83	-0.40	6.54	0.83	28.60	-0.36	2.09	0.08	1.28	-0.09	3.84	-0.33	CSA	IR
COMLAB	7.10	0.53	6.43	0.35	29.50	0.47	2.14	0.43	1.37	0.69	4.02	1.04	4A	ES
COMLAB	6.71	-0.82	6.19	-0.70	28.29	-0.64	1.94	-1.01	1.20	-0.77	3.92	0.27	CSA	IR
COMLAB	7.47	1.82	6.89	2.39	31.70	2.48	2.33	1.76	1.47	1.56	4.17	2.18	3A	ES
COMLAB	6.85	-0.33	6.26	-0.41	29.50	0.47	2.12	0.29	1.32	0.26	3.90	0.13	CSA	IR
COMLAB	6.93	-0.06	6.41	0.26	28.00	-0.91	2.19	0.78	1.38	0.78	3.79	-0.71	FUS	XRF
COMLAB	7.05	0.36	6.30	-0.23	26.73	-2.07	2.05	-0.21	1.34	0.43	4.07	1.42	4A	ES
COMLAB	6.86	-0.30	6.26	-0.41	27.90	-1.00	2.14	0.43	1.35	0.52	3.95	0.51	FUS	ES
COMLAB	6.79	-0.54	6.36	0.03	27.60	-1.27	2.12	0.29	1.33	0.34	3.89	0.05	4A	ES
COMLAB	7.03	0.29	6.25	-0.45	29.40	0.38	1.96	-0.84	1.24	-0.44	3.68	-1.55	CSA	IR
COMLAB	6.87	-0.26	6.35	-0.01	29.51	0.48	2.15	0.50	1.36	0.60	3.92	0.28	CSA	IR
COMLAB	7.02	0.26	6.47	0.52	30.10	1.02	2.13	0.36	1.31	0.17	4.05	1.27	CSA	IR
COMLAB	7.64	2.41	6.52	0.75	29.10	0.10	2.26	1.27	1.52	1.99	4.12	1.80	CSA	IR
COMLAB	6.68	-0.92	6.19	-0.72	28.10	-0.82	2.13	0.36	1.33	0.34	3.73	-1.17	FUS	ES
COMLAB	6.80	-0.51	6.44	0.39	28.48	-0.47	2.21	0.92	1.42	1.12	3.98	0.74	3A	ES
COMLAB	6.95	0.01	6.27	-0.37	>10.00	ald	2.19	0.78	1.37	0.69	3.89	0.05	AR	ES
COMLAB	6.91	-0.12	6.35	-0.01	>10.00	ald	2.22	0.99	1.37	0.69	3.92	0.28	AR	ES
COMLAB	6.79	-0.54	6.06	-1.30	27.70	-1.18	2.22	0.99	1.38	0.78	3.93	0.36	CSA	IR
COMLAB	6.76	-0.64	6.27	-0.37	28.60	-0.36	2.12	0.29	1.24	-0.44	3.79	-0.71	CSA	IR
COMLAB	7.08	0.46	6.23	-0.54	25.40	-3.00	2.18	0.71	1.35	0.52	4.08	1.50	4A	ES
COMLAB	7.08	0.46	6.32	-0.14	29.20	0.19	2.06	-0.14	1.21	-0.70	3.73	-1.17	CSA	IR
COMLAB	7.01	0.22	6.58	1.01	28.27	-0.66	1.87	-1.47	1.09	-1.74	3.66	-1.70	CSA	IR
COMLAB	6.25	-2.43	5.82	-2.38	27.71	-1.18	2.12	0.30	1.34	0.47	3.83	-0.44	4A	ES
COMLAB	6.84	-0.37	6.15	-0.90	26.22	-2.54	2.03	-0.35	1.24	-0.44	3.75	-1.02	AR	ES
COMLAB	6.83	-0.40	6.18	-0.77	28.90	-0.08	2.26	1.27	1.39	0.86	3.98	0.74	CSA	IR
COMLAB	7.10	0.53	6.40	0.21	28.90	-0.08	2.20	0.85	1.40	0.95	3.90	0.13	FUS	XRF
COMLAB	7.39	1.54	6.64	1.28	30.10	1.02	2.24	1.13	1.40	0.95	4.12	1.80	4A	ES
COMLAB	7.28	1.16	6.46	0.48	28.80	-0.17	2.18	0.71	1.34	0.43	3.80	-0.64	4A	ES
COMLAB	7.08	0.46	6.37	0.08	28.10	-0.82	2.18	0.71	1.38	0.78	3.89	0.05	4A	ES
COMLAB	6.53	-1.44	6.10	-1.12	28.40	-0.54	2.20	0.85	1.38	0.78	3.75	-1.02	4A	ES
COMLAB	7.19	0.85	6.57	0.97	28.40	-0.54	2.08	0.00	1.27	-0.18	4.06	1.35	4A	ES
COMLAB	7.07	0.43	6.50	0.66	28.73	-0.24	1.97	-0.77	1.18	-0.96	3.97	0.66	CSA	IR
COMLAB	6.63	-1.10	6.29	-0.28	28.20	-0.72	1.94	-0.98	1.23	-0.52	3.79	-0.71	CSA	IR
COMLAB	6.90	-0.16	6.21	-0.63	30.27	1.17	1.99	-0.60	1.27	-0.21	3.63	-1.93	4A	MS,ES
COMLAB	6.98	0.12	6.33	-0.10	29.20	0.19	2.10	0.15	1.16	-1.13	3.76	-0.94	CSA	IR
COMLAB	6.88	-0.23	6.55	0.88	29.21	0.20	2.34	1.83	1.43	1.21	4.08	1.50	4A	ES
COMLAB	6.88	-0.23	6.37	0.08	28.83	-0.15	2.24	1.13	1.40	0.95	4.09	1.57	4A	ES
COMLAB	7.14	0.68	6.46	0.49	28.01	-0.89	2.08	0.00	1.31	0.15	3.93	0.36	4A	ES
COMLAB	6.98	0.12	6.43	0.35	29.83	0.77	2.16	0.57	1.39	0.86	4.00	0.89	CSA	IR
COMLAB	7.20	0.88	6.05	-1.34	29.00	0.01	1.90	-1.26	1.20	-0.78	3.90	0.13	AR	ES
COMLAB	6.60	-1.22	6.07	-1.28	27.37	-1.48	1.95	-0.93	1.22	-0.61	3.67	-1.63	AR	ES
COMLAB	6.33	-2.14	5.87	-2.15	26.61	-2.19	2.02	-0.45	1.25	-0.39	3.59	-2.27	GRAV	
COMLAB	6.70	-0.85	6.00	-1.57	29.00	0.01	2.00	-0.56	1.20	-0.78	3.80	-0.64	CSA	IR
COMLAB	6.81	-0.49	6.32	-0.15	27.65	-1.23	2.12	0.26	1.34	0.43	3.76	-0.96	4A	ICP
COMLAB	6.86	-0.30	6.22	-0.59	28.74	-0.23	1.81	-1.89	1.11	-1.56	3.82	-0.48	CSA	IR
COMLAB	7.12	0.60	6.52	0.75	28.75	-0.22	2.07	-0.07	1.28	-0.09	3.96	0.58	CSA	IR
COMLAB	7.18	0.81	6.51	0.70	29.60	0.56	1.96	-0.84	1.09	-1.74	3.93	0.36	CSA	IR
COMLAB	7.16	0.74	6.64	1.28	30.37	1.26	2.22	0.99	1.44	1.30	4.44	3.00	4A	ES
COMLAB	7.39	1.54	6.86	2.26	25.40	-3.00	1.83	-1.75	1.12	-1.48	3.89	0.05	CSA	IR
COMLAB	8.47	3.00	7.97	3.00	32.79	3.00	2.26	1.27	1.37	0.69	5.00	3.00	3A	AAS
COMLAB	6.63	-1.10	5.93	-1.88	32.00	2.76	2.10	0.15	1.32	0.26	3.93	0.36	3A	ICP
COMLAB	6.90	-0.17	6.30	-0.22	27.58	-1.29	2.18	0.71	1.38	0.75	3.86	-0.20	4A	ES
COMLAB	6.63	-1.10	6.08	-1.21	26.75	-2.05	1.98	-0.67	1.28	-0.08	3.72	-1.24	AR	ES
COMLAB	6.49	-1.58	5.80	-2.46	29.00	0.01	2.14	0.43	1.33	0.34	3.86	-0.18	AR	ES
COMLAB	6.73	-0.75	6.15	-0.90	28.10	-0.82	1.96	-0.84	1.17	-1.04	3.77	-0.86	CSA	IR
COMLAB	7.14	0.67	6.42	0.30	30.20	1.11	1.99	-0.63	1.19	-0.87	3.99	0.81	CSA	IR
COMLAB	6.87	-0.26	6.19	-0.72	29.00	0.01	1.88	-1.40	1.14	-1.30	3.84	-0.33	CSA	IR
COMLAB	6.69	-0.89	6.11	-1.08	29.26	0.25	1.91	-1.19	1.35	0.52	4.06	1.35	CSA	IR
COMLAB	6.83	-0.40	6.41	0.26	28.64	-0.32	2.00	-0.56	1.24	-0.44	3.92	0.28	CSA	IR
COMLAB	6.91	-0.12	6.40	0.21	29.20	0.19	2.15	0.50	1.40	0.95	3.75	-1.02	CSA	IR
COMLAB	6.85	-0.33	5.81	-2.41	>30.00	ald	2.24	1.13	1.41	1.04	3.91	0.20	CSA	IR
COMLAB	6.65	-1.03	6.46	0.48	31.10	1.93	1.77	-2.17	1.43	1.21	3.82	-0.48	4A	ICP
COMLAB	6.96	0.05	6.31	-0.19	28.94	-0.05	1.91	-1.19	1.18	-0.96	3.82	-0.48	CSA	IR
COMLAB	6.54	-1.41	6.04	-1.39	25.56	-3.00	2.19	0.79	1.38	0.80	3.93	0.33	4A	ES
COMLAB	6.93	-0.06	6.12	-1.03	29.17	0.16	2.03	-0.35	1.02	-2.34	3.86	-0.18	CSA	IR
COMLAB	7.45	1.75	6.53	0.79	28.01	-0.90	2.45	2.60	1.59	2.60	4.05	1.27	AR,IH	GRAV
COMLAB	6.82	-0.44	6.33	-0.10	28.40	-0.54	2.15	0.50	1.38	0.78	3.85	-0.25	CSA	IR
COMLAB	7.37	1.47	6.71	1.59	29.90	0.83	2.35	1.90	1.51	1.90	3.88	-0.03	CSA	IR
COMLAB	6.80	-0.51	6.23	-0.54	28.87	-0.11	1.99	-0.63	1.27	-0.18	3.85	-0.25	CSA	IR
COMLAB	7.04	0.31	6.44	0.37	28.40	-0.54	2.14	0.39	1.39	0.86	4.01	0.97	CSA	IR
MINELAB	7.13	0.65												

Standard Deviations



Standard Deviations

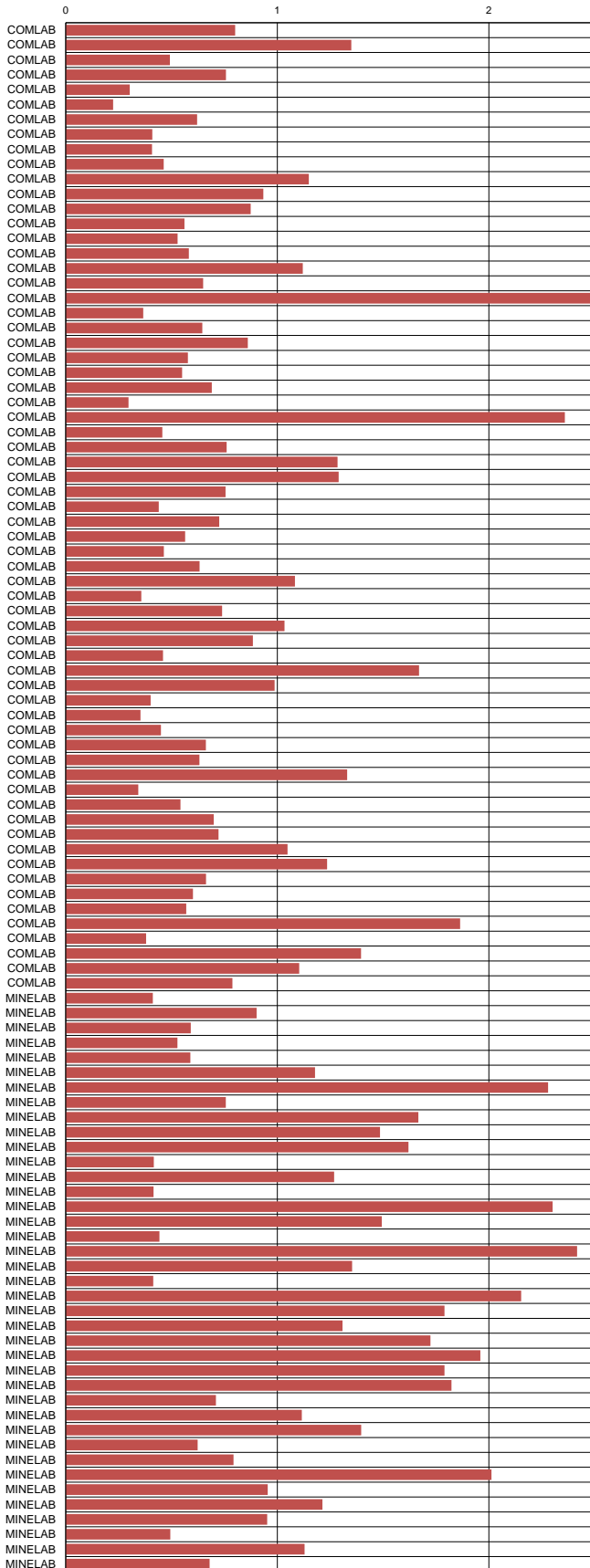


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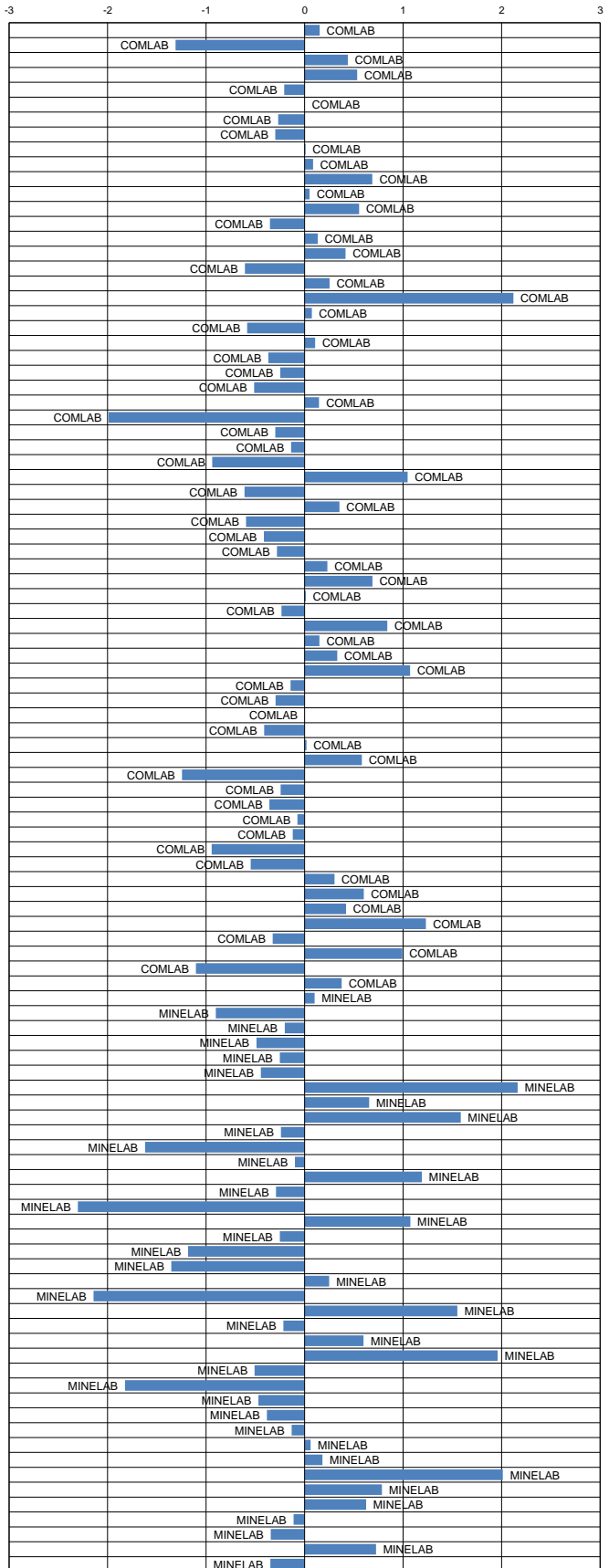
Standard Reference	GS915-1	GS915-2	GS915-3	GS915-4	GS915-5	GS915-6	GS915-7	GS915-8	GS915-9	GS915-10
MEAN (%)	2.06	0.28	0.19	0.05	3.88	0.09	1.07	0.13	0.12	6.90
STDEV (%)	0.08	0.02	0.02	0.01	0.16	0.02	0.04	0.02	0.02	0.25
95% CI (%)	0.02	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05
95% CI (ret %)	0.77%	1.40%	2.15%	4.32%	0.80%	3.60%	0.77%	2.77%	2.80%	0.72%
MIN (%)	1.90	0.23	0.14	0.03	3.50	0.05	0.97	0.09	0.08	6.27
MEDIAN (%)	2.05	0.28	0.19	0.05	3.88	0.09	1.08	0.13	0.12	6.90
MAX (%)	2.26	0.33	0.24	0.06	4.27	0.14	1.19	0.18	0.16	7.48
IQR (%)	0.10	0.03	0.02	0.02	0.15	0.01	0.05	0.02	0.02	0.31
COUNT	98	89	97	79	100	92	96	94	92	100

Standard Reference	GS915-1		GS915-2		GS915-3		GS915-4		GS915-5		GS915-6		GS915-7		GS915-8		GS915-9		GS915-10		Method	Reading
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score		
COMLAB	2.13	0.94	0.29	0.36	0.20	0.65	-0.01	-3.00	4.17	1.84	0.09	-0.21	1.08	0.14	0.14	0.45	0.12	-0.03	7.00	0.38	CSA	IR
COMLAB	<b>1.80</b>	<b>-3.00</b>	0.28	-0.17	0.18	-0.34	0.05	0.20	<b>3.36</b>	<b>-3.00</b>	0.09	-0.21	<b>0.90</b>	<b>-3.00</b>	0.12	-0.66	0.11	-0.64	6.33	-2.28	CSA	IR
COMLAB	2.05	-0.07	0.30	0.62	0.20	0.60	0.05	0.62	<b>3.85</b>	<b>-2.00</b>	0.10	0.46	1.13	1.36	0.14	0.45	0.13	0.27	6.97	0.26	CSA	IR
COMLAB	2.17	1.45	0.27	-0.69	0.19	0.16	0.05	0.20	<b>4.87</b>	<b>3.00</b>	0.09	-0.21	1.10	0.63	0.14	0.45	0.13	0.58	6.85	-0.22	CSA	IR
COMLAB	2.01	-0.58	0.27	-0.69	0.18	-0.34	0.05	0.20	<b>3.91</b>	<b>0.18</b>	0.09	-0.21	1.05	-0.59	0.13	-0.11	0.12	-0.03	6.93	0.10	CSA	IR
COMLAB	2.05	-0.07	0.27	-0.69	0.19	0.16	0.05	0.20	3.93	0.31	0.09	-0.21	1.07	-0.10	0.14	0.45	0.12	-0.03	6.91	0.02	CSA	IR
COMLAB	2.10	0.56	0.27	-0.69	0.18	-0.34	0.03	-1.94	3.90	0.12	0.09	-0.21	1.10	0.63	0.14	0.45	0.10	-1.25	6.90	-0.02	CSA	IR
COMLAB	2.02	-0.45	0.28	-0.17	0.18	-0.34	0.05	0.20	3.81	-0.45	0.08	-0.82	1.08	0.14	0.12	-0.66	0.11	-0.64	6.96	0.22	CSA	IR
COMLAB	2.09	0.44	0.27	-0.69	0.18	-0.34	0.06	1.26	3.91	0.18	0.08	-0.82	1.08	0.14	0.13	-0.11	0.12	-0.03	6.92	0.06	CSA	IR
COMLAB	2.11	0.69	0.28	-0.17	0.19	0.16	0.04	-0.87	<b>4.00</b>	0.76	0.08	-0.82	1.10	0.63	0.14	0.45	0.12	-0.03	6.92	0.06	CSA	IR
COMLAB	2.20	1.83	0.30	0.89	0.18	-0.34	0.03	-1.94	<b>4.40</b>	<b>3.00</b>	0.10	0.40	1.14	1.60	0.14	0.45	0.12	-0.03	7.16	1.01	CSA	IR
COMLAB	1.97	-1.08	0.29	0.36	0.20	0.65	0.06	1.26	3.52	-2.30	0.11	1.01	1.06	-0.34	0.14	0.45	0.14	1.19	6.73	-0.69	CSA	IR
COMLAB	2.07	0.18	0.32	1.94	0.21	1.15	<b>0.10</b>	<b>3.00</b>	3.87	-0.07	-0.17	-1.43	1.08	0.14	0.13	-0.11	0.13	0.58	6.94	0.14	CSA	IR
COMLAB	2.02	-0.45	0.26	-1.22	0.19	0.16	0.04	-0.87	3.98	0.63	0.09	-0.21	1.03	-1.07	0.13	-0.11	0.11	-0.64	6.97	0.26	CSA	IR
COMLAB	2.02	-0.45	0.30	0.89	0.20	0.65	0.04	-0.87	3.95	0.44	0.09	-0.21	1.08	0.14	0.13	-0.11	0.14	1.19	6.82	-0.34	CSA	IR
COMLAB	2.06	0.06	0.29	0.36	0.19	0.16	0.06	1.26	4.03	0.95	0.10	0.40	1.04	-0.83	0.15	1.01	0.13	0.58	6.96	0.22	CSA	IR
COMLAB	2.09	0.44	<b>0.22</b>	<b>-3.00</b>	0.14	-2.34	0.06	1.26	3.88	-0.01	0.09	-0.21	1.08	0.14	0.11	-1.22	0.09	-1.85	7.09	0.74	CSA	IR
COMLAB	1.97	-1.08	0.30	0.89	0.20	0.65	0.05	0.20	3.87	-0.07	0.11	1.01	1.04	-0.83	0.15	1.01	0.13	0.58	6.95	0.18	CSA	IR
COMLAB	<b>3.04</b>	<b>3.00</b>	<b>0.55</b>	<b>3.00</b>	<b>0.83</b>	<b>3.00</b>	<b>0.44</b>	<b>3.00</b>	4.18	1.90	<b>0.33</b>	<b>3.00</b>	<b>0.71</b>	<b>-3.00</b>	<b>0.43</b>	<b>3.00</b>	<b>0.46</b>	<b>3.00</b>	7.23	1.29	AR	GRAV
COMLAB	2.14	1.07	0.28	-0.17	0.19	0.16	0.05	0.20	3.84	-0.26	0.10	0.40	1.06	-0.34	0.12	-0.66	0.12	-0.03	7.00	0.38	CSA	IR
COMLAB	2.08	0.31	0.28	-0.17	0.17	-0.84	0.04	-0.87	3.67	-1.34	0.09	-0.21	1.07	-0.10	0.11	-1.22	0.12	-0.03	6.56	-1.37	CSA	IR
COMLAB	2.10	0.56	0.30	0.89	0.20	0.65	<-0.10	bld	4.00	0.76	<-0.10	bld	1.10	0.63	0.10	-1.77	0.10	-1.25	7.00	0.38	FUS	XRF
COMLAB	2.08	0.31	0.28	-0.17	0.19	0.16	0.04	-0.87	3.62	-1.66	0.09	-0.21	1.06	-0.34	0.11	-1.22	0.13	0.58	6.84	-0.26	CSA	IR
COMLAB	2.11	0.69	0.28	-0.17	0.18	-0.34	0.05	0.20	3.86	-0.13	0.09	-0.21	1.10	0.63	0.13	-0.11	0.12	-0.03	6.08	<b>-3.00</b>	CSA	IR
COMLAB	2.08	0.31	0.27	-0.69	0.17	-0.84	0.04	-0.87	3.75	-0.83	0.08	-0.82	1.07	-0.10	0.11	-1.22	0.11	-0.64	7.05	0.58	CSA	IR
COMLAB	2.10	0.56	0.28	-0.17	0.18	-0.34	0.05	0.20	3.92	0.25	0.09	-0.21	1.08	0.14	0.14	0.45	0.12	-0.03	7.06	0.62	CSA	IR
COMLAB	<b>1.75</b>	<b>-3.00</b>	<b>0.18</b>	<b>-3.00</b>	0.15	-1.84	0.03	-1.94	4.17	1.84	0.06	-2.04	<b>0.79</b>	<b>-3.00</b>	<b>0.06</b>	<b>-3.00</b>	<b>0.05</b>	<b>-3.00</b>	6.67	-0.93	CSA	IR
COMLAB	2.06	0.06	0.28	-0.17	0.19	0.16	0.05	0.20	3.63	-1.60	0.09	-0.21	1.09	0.39	0.13	-0.11	0.11	-0.64	6.64	-1.05	CSA	IR
COMLAB	2.04	-0.20	0.26	-1.22	0.18	-0.34	<b>3.06</b>	<b>3.00</b>	3.90	0.12	0.09	-0.21	1.07	-0.10	0.12	-0.66	0.12	-0.03	6.47	-1.72	CSA	IR
COMLAB	2.02	-0.45	0.27	-0.69	0.18	-0.34	<b>0.02</b>	<b>-3.00</b>	3.97	0.57	<b>0.04</b>	<b>-3.00</b>	1.10	0.63	0.10	-1.77	0.09	-1.85	7.04	0.54	CSA	IR
COMLAB	1.99	-0.83	0.30	0.89	0.20	0.70	<b>0.09</b>	<b>3.00</b>	3.82	-0.39	0.13	2.35	1.08	0.14	0.15	1.06	0.16	2.16	7.25	1.37	CSA	IR
COMLAB	2.06	0.06	0.26	-1.22	0.17	-0.84	0.04	-0.87	3.96	0.50	0.06	-2.04	1.08	0.14	0.11	-1.22	0.11	-0.64	6.91	0.02	CSA	IR
COMLAB	2.03	-0.32	0.29	0.36	0.20	0.65	0.06	1.26	3.88	-0.01	0.10	0.40	1.07	-0.10	0.14	0.45	0.13	0.58	6.97	0.26	CSA	IR
COMLAB	2.00	-0.70	0.27	-0.69	0.20	0.65	0.04	-0.87	3.88	-0.01	0.08	-0.82	1.02	-1.32	0.13	-0.11	0.11	-0.64	6.54	-1.45	CSA	IR
COMLAB	2.10	0.56	0.27	-0.69	0.15	-1.94	0.05	0.20	3.90	-0.52	0.09	-0.21	1.05	-0.59	0.13	-0.38	0.11	-0.64	6.90	-0.02	AR	ES
COMLAB	2.07	0.18	<b>0.21</b>	<b>-3.00</b>	0.19	-0.09	<-0.05	bld	3.92	0.25	0.09	-0.15	1.09	0.39	0.13	0.01	0.12	-0.09	6.90	-0.02	AR	GRAV
COMLAB	1.98	-0.96	0.30	0.89	0.20	0.65	0.05	0.20	3.81	-0.45	0.10	0.40	1.14	1.60	0.13	-0.11	0.13	0.58	6.78	-0.49	CSA	IR
COMLAB	1.97	-1.08	0.31	1.41	0.21	1.15	0.06	1.26	3.86	-0.13	0.12	1.62	1.06	-0.34	0.15	1.01	0.16	2.40	6.80	-0.42	CSA,FUS	IR,ES
COMLAB	2.09	0.44	0.28	-0.17	0.18	-0.34	0.04	-0.87	3.97	0.57	0.09	-0.21	1.09	0.39	0.13	-0.11	0.12	-0.03	7.02	0.46	CSA	IR
COMLAB	2.10	0.56	0.25	-1.75	0.17	-0.84	0.03	-1.94	4.00	0.76	0.09	-0.21	1.09	0.39	0.13	-0.11	0.12	-0.03	7.11	0.81	CSA	IR
COMLAB	2.17	1.45	0.32	1.94	0.21	1.15	0.06	1.26	3.81	-0.45	0.10	0.40	1.14	1.60	0.16	1.56	0.12	-0.03	6.78	-0.49	CSA	IR
COMLAB	2.05	-0.07	0.27	-0.69	0.16	-1.34	0.05	0.20	4.25	2.35	0.08	-0.82	1.09	0.39	0.13	-0.11	0.11	-0.64	7.47	2.24	CSA	IR
COMLAB	2.04	-0.20	0.29	0.36	0.18	-0.34	0.05	0.20	3.87	-0.07	0.10	0.52	1.08	0.14	0.14	0.45	0.12	-0.03	7.48	2.28	CSA	IR
COMLAB	<b>2.37</b>	<b>3.00</b>	0.30	0.89	0.22	1.65	0.06	1.26	4.06	1.14	0.11	1.01	<b>0.92</b>	<b>-3.00</b>	<b>0.19</b>	<b>3.00</b>	0.13	0.58	7.20	1.17	CSA	IR
COMLAB	2.17	1.45	0.28	-0.17	0.21	1.15	0.05	0.20	3.77	-0.71	0.10	0.40	0.97	-2.53	0.14	0.45	0.13	0.58	6.34	-2.24	CSA	IR
COMLAB	2.00	-0.70	0.28	-0.17	0.19	0.16	0.04	-0.87	3.94													

Standard Deviations



Standard Deviations

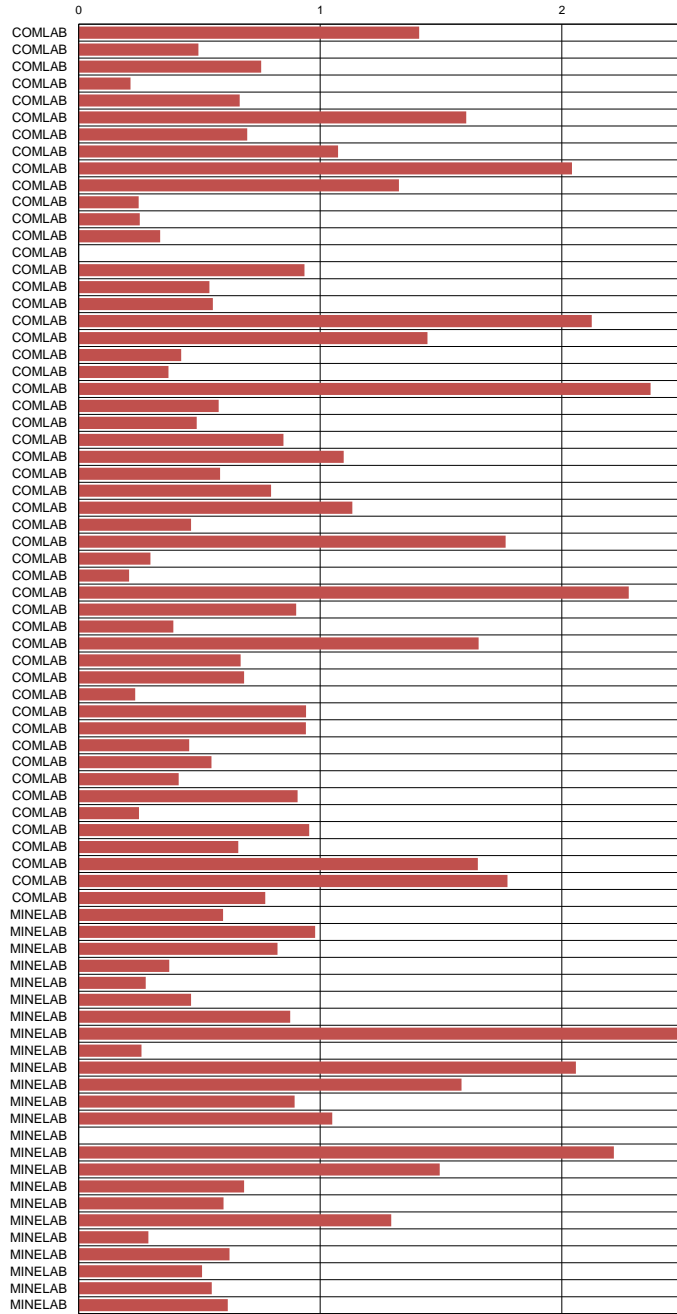


### Carbon Round Robin - Summary Statistics, Assays, Standardised Values and Graphs - October 2015

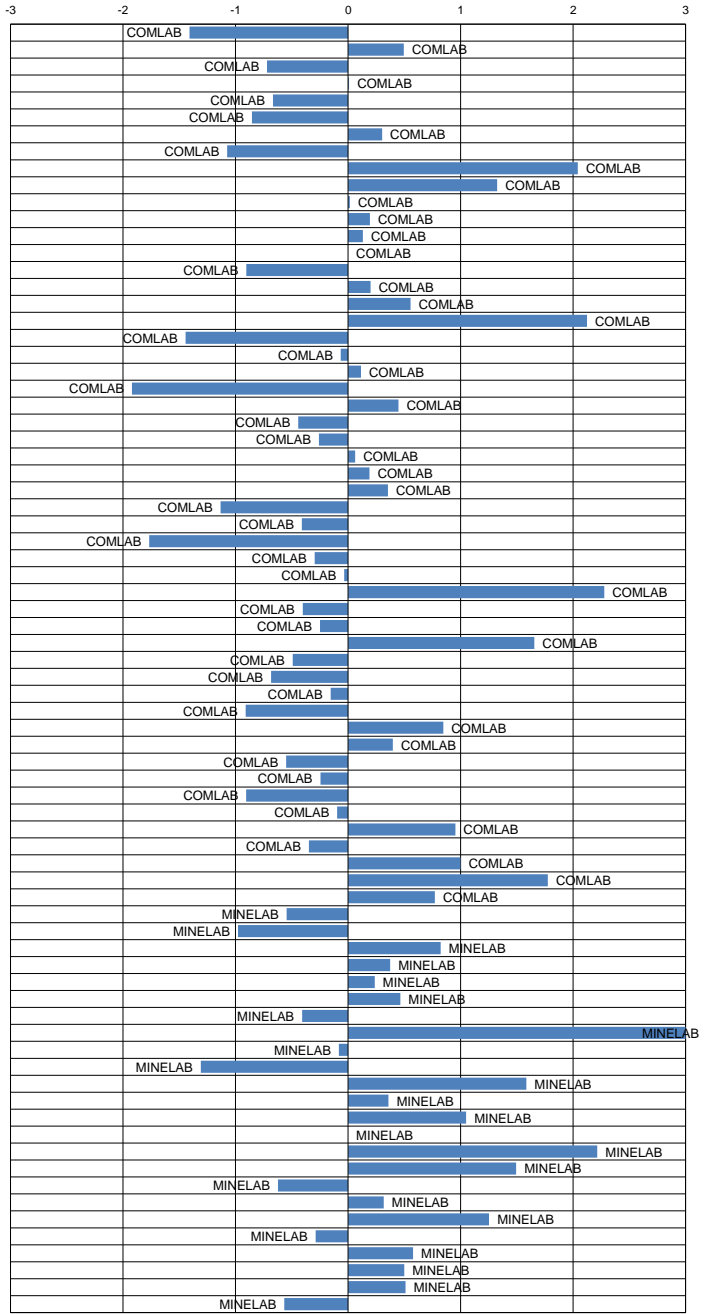
Standard Reference	GS915-1	GS915-2	GS915-3	GS915-4	GS915-5	GS915-6	GS915-7	GS915-8	GS915-9	GS915-10
MEAN (%)	0.08	0.13	0.11	0.03	0.12	0.04	0.16	0.07	0.04	0.13
STDEV (%)	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02
95% CI (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95% CI (rel %)	6.53%	3.50%	4.00%	9.77%	3.37%	7.27%	2.85%	6.83%	8.53%	2.91%
MIN (%)	0.02	0.08	0.06	0.01	0.08	0.02	0.11	0.07	0.01	0.10
MEDIAN (%)	0.08	0.13	0.10	0.03	0.12	0.04	0.16	0.07	0.04	0.13
MAX (%)	0.13	0.18	0.15	0.05	0.15	0.07	0.21	0.11	0.07	0.17
IQR (%)	0.03	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.03
COUNT	69	72	70	58	68	62	69	69	64	67

Standard Reference	GS915-1		GS915-2		GS915-3		GS915-4		GS915-5		GS915-6		GS915-7		GS915-8		GS915-9		GS915-10		Method	Reading	
	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score	assay	z-score			
COMLAB	0.06	-0.77	0.12	-0.56	0.08	-1.42	<0.01	blid	0.09	-1.64	0.02	-1.83	0.13	-1.49	0.03	-1.98	0.01	-2.14	0.12	-0.86	CSA	IR	
COMLAB	0.08	0.19	0.14	0.45	0.11	0.26	0.03	0.25	0.12	0.18	0.43	3.00	0.16	0.10	0.07	0.01	0.04	0.13	0.14	0.38	CSA	IR	
COMLAB	0.07	-0.29	0.11	-1.07	0.09	-0.86	0.02	-0.72	0.12	0.18	0.03	-1.02	0.14	-0.96	0.05	-0.99	0.03	-0.62	0.12	-0.86	CSA	IR	
COMLAB	0.07	-0.29	0.14	0.45	0.10	-0.30	0.03	0.25	0.12	0.18	0.04	-0.20	0.16	0.10	0.07	0.01	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.05	-1.25	0.12	-0.56	0.10	-0.30	0.02	-0.72	0.11	-0.43	0.03	-1.02	0.15	-0.43	0.06	-0.49	0.03	-0.62	0.12	-0.86	CSA	IR	
COMLAB	0.05	-1.25	0.10	-1.58	0.08	-1.42	<0.01	blid	0.09	-1.64	0.14	3.00	0.13	-1.49	0.05	-0.99	<0.01	blid	0.11	-1.47	CSA	IR	
COMLAB	0.08	0.19	0.13	-0.06	0.11	0.26	0.03	0.25	0.13	0.79	0.07	2.23	0.15	-0.43	0.04	-1.49	0.05	0.89	0.14	0.38	CSA	IR	
COMLAB	0.05	-1.25	0.12	-0.56	0.09	-0.86	0.01	-1.69	0.11	-0.43	0.03	-1.02	0.14	-0.96	0.05	-0.99	0.01	-2.14	0.12	-0.86	CSA	IR	
COMLAB	0.12	2.10	0.18	2.48	0.15	2.51	0.03	0.25	0.21	3.00	0.06	1.42	0.24	3.00	0.09	1.00	0.06	1.65	0.21	3.00	CSA	IR	
COMLAB	0.09	0.67	0.16	1.47	0.12	0.82	0.06	3.00	0.13	0.79	0.07	2.23	0.17	0.62	0.09	1.00	0.06	1.65	0.15	1.00	CSA	IR	
COMLAB	0.08	0.19	0.14	0.45	0.11	0.26	0.02	-0.72	0.12	0.18	0.04	-0.20	0.16	0.10	0.07	0.01	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.08	0.19	0.13	-0.06	0.11	0.26	0.03	0.25	0.12	0.18	0.05	0.61	0.16	0.10	0.08	0.51	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.08	0.19	0.13	-0.06	0.10	-0.30	0.04	1.22	0.12	0.18	0.05	0.61	0.15	-0.43	0.07	0.01	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	<0.50	blid	CSA	IR	
COMLAB	0.06	-0.77	0.11	-1.07	0.09	-0.86	<0.02	blid	0.09	-1.64	0.03	-1.02	0.14	-0.96	0.06	-0.49	0.04	0.13	0.11	-1.47	CSA	IR	
COMLAB	0.08	0.19	0.14	0.45	0.10	-0.30	0.02	-0.72	0.14	1.40	0.04	-0.20	0.18	1.15	0.06	-0.49	0.04	0.13	0.14	0.38	CSA	IR	
COMLAB	0.09	0.67	0.14	0.45	0.11	0.26	0.03	0.25	0.13	0.79	0.05	0.61	0.17	0.62	0.07	0.01	0.05	0.89	0.15	1.00	CSA	IR	
COMLAB	0.11	1.63	0.17	1.97	0.14	1.95	0.09	3.00	0.14	1.40	0.09	3.00	0.19	1.68	0.11	2.00	0.01	0.15	3.00	0.16	1.62	CSA	IR
COMLAB	0.05	-1.25	0.10	-1.58	0.07	-1.98	<0.01	blid	0.10	-1.04	0.02	-1.83	0.13	-1.49	0.05	-0.99	0.02	-1.38	0.11	-1.47	CSA	IR	
COMLAB	0.06	-0.77	0.14	0.45	0.10	-0.30	0.02	-0.72	0.11	-0.43	0.05	0.61	0.16	0.10	0.08	0.51	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.08	0.19	0.13	-0.06	0.10	-0.30	0.04	1.22	0.13	0.79	0.04	-0.20	0.16	0.10	0.06	-0.49	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.02	-2.68	0.08	-2.59	0.05	-3.00	0.02	-0.72	0.05	-3.00	0.02	-1.83	0.03	-3.00	0.02	-2.48	0.01	-2.14	0.17	2.24	CSA	IR	
COMLAB	0.07	-0.36	0.15	0.91	0.10	-0.18	0.03	0.71	0.12	0.12	0.05	0.99	0.16	-0.12	0.07	0.09	0.06	1.38	0.15	0.94	CSA	IR	
COMLAB	0.07	-0.29	0.12	-0.56	0.10	-0.30	0.02	-0.72	0.11	-0.43	0.03	-1.02	0.16	0.10	0.06	-0.49	0.04	0.13	0.12	-0.86	CSA	IR	
COMLAB	0.06	-0.77	0.12	-0.56	0.11	0.26	0.02	-0.72	0.11	-0.43	0.04	-0.20	0.19	1.68	0.09	1.00	0.02	-1.38	0.11	-1.47	CSA	IR	
COMLAB	0.07	-0.29	0.11	-1.07	0.09	-0.86	0.05	2.19	0.10	-1.04	0.05	0.61	0.15	-0.43	0.33	3.00	0.03	-0.62	0.12	-0.86	CSA	IR	
COMLAB	0.05	-1.25	0.14	0.45	0.10	-0.30	0.03	0.25	0.13	0.79	0.05	0.61	0.15	-0.43	0.08	0.51	0.05	0.89	0.14	0.38	CSA	IR	
COMLAB	0.07	-0.29	0.12	-0.56	0.10	-0.30	0.03	0.25	0.11	-0.43	0.04	-0.20	0.15	-0.43	0.10	1.50	0.08	3.00	0.15	1.00	CSA,FUS	IR,ES	
COMLAB	0.06	-0.77	0.12	-0.56	0.09	-0.86	0.01	-1.69	0.08	-2.25	0.03	-1.02	0.14	-0.96	0.05	-0.99	0.02	-1.38	0.12	-0.86	CSA	IR	
COMLAB	0.05	-1.25	0.12	-0.56	0.10	-0.30	0.02	-0.72	0.12	0.18	0.04	-0.20	0.16	0.10	0.06	-0.49	0.03	-0.62	0.13	-0.24	CSA	IR	
COMLAB	0.05	-1.25	0.09	-2.08	0.06	-2.54	0.01	-1.69	0.06	-3.00	0.03	-1.02	0.13	-1.49	0.05	-0.99	0.03	-0.62	0.08	-3.00	CSA	IR	
COMLAB	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	CSA	IR	
COMLAB	0.08	0.19	0.13	-0.06	0.11	0.26	0.02	-0.72	0.12	0.18	0.04	-0.20	0.16	0.10	0.07	0.01	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.26	3.00	0.16	1.47	0.15	2.51	0.05	2.19	0.29	3.00	0.06	1.42	0.19	1.68	0.10	1.50	0.09	3.00	0.39	3.00	CSA	IR	
COMLAB	0.12	2.10	0.13	-0.06	0.10	-0.30	0.03	0.25	0.09	-1.64	0.02	-1.83	0.14	-0.96	0.04	-1.49	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.07	-0.29	0.13	-0.06	0.09	-0.86	0.02	-0.72	0.11	-0.43	0.05	0.61	0.16	0.10	0.07	0.01	0.03	-0.62	0.13	-0.24	CSA	IR	
COMLAB	0.09	0.67	0.15	0.96	0.14	1.95	0.06	3.00	0.15	2.00	0.06	1.42	0.18	1.15	0.11	2.00	0.07	2.41	0.15	1.00	CSA	IR	
COMLAB	0.06	-0.77	0.11	-1.07	0.09	-0.86	0.02	-0.72	0.10	-1.04	0.04	-0.20	0.15	-0.43	0.06	-0.49	0.05	0.89	0.13	-0.24	CSA	IR	
COMLAB	0.06	-0.58	0.12	-0.51	0.09	-0.69	0.02	-0.62	0.10	-0.85	0.04	-0.61	0.14	-0.91	0.06	-0.49	0.03	-0.55	0.12	-1.04	CSA	IR	
COMLAB	0.07	-0.29	0.13	-0.06	0.10	-0.30	0.03	0.25	0.11	-0.43	0.04	-0.20	0.15	-0.43	0.07	0.01	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.05	-1.05	0.12	-0.72	0.11	0.15	0.01	-1.98	0.11	-0.49	0.02	-1.83	0.14	-0.75	0.04	-1.29	0.02	-1.15	0.13	0.01	CSA	IR	
COMLAB	0.10	1.00	0.18	2.48	0.13	1.22	0.04	0.84	0.13	0.91	0.05	0.61	0.19	1.63	0.08	0.26	0.04	-0.17	0.13	-0.30	CSA	IR	
COMLAB	0.08	0.19	0.15	0.96	0.10	-0.30	0.04	1.22	0.12	0.18	0.05	0.61	0.16	0.10	0.08	0.51	0.04	0.13	0.14	0.38	CSA	IR	
COMLAB	0.08	-0.05	0.13	-0.16	0.10	-0.46	0.02	-0.72	0.11	-0.73	0.04	-0.45	0.15	-0.33	0.06	-0.29	0.03	-0.77	0.11	-1.54	CSA	IR	
COMLAB	0.07	-0.29	0.14	0.40	0.10	-0.13	0.02	-0.52	0.11	-0.25	0.04	-0.53	0.15	-0.64	0.06	-0.39	0.03	-0.55	0.14	0.44	CSA	IR	
COMLAB	0.05	-1.39	0.12	-0.56	0.08	-1.64	0.02	-0.81	0.12	-0.12	0.04	-0.45	0.15	-0.33	0.06	-0.64	0.02	-1.46	0.11	-1.66	CSA	IR	
COMLAB	0.08	0.19	0.12	-0.56	0.10	-0.30	0.03	0.25	0.12	0.18	0.04	-0.20	0.15	-0.43	0.07	0.01	0.04	0.13	0.13	-0.24	CSA	IR	
COMLAB	0.09	0.67	0.15	0.96	0.12	0.82	0.04	1.22	0.13	0.79	0.06	1.42	0.17	0.62	0.09	1.00	0.06	1.65	0.14	0.38	CSA	IR	
COMLAB	0.07	-0.29	0.11	-1.07	0.10	-0.30	0.04	0.74	0.09	-1.64	0.05	0.20	0.17	0.62	0.06	-0.49	0.03	-0.40	0.12	-0.86	CSA	IR	
COMLAB	0.11	1.63	0.13	-0.06	0.30	3.00	0.04	1.22	0.11	-0.43	0.10	3.00	0.11	-2.54	0.11	2.00	0.07	2.41	0.13	-0.24	CSA	IR	
COMLAB	0.12	2.10	0.15	0.96	0.13	1.39	0.05	2.00	0.15	2.00	0.08	3.00	0.17	0.62	0.09	1.10	0.06	1.57	0.20	3.00	CSA	IR	
COMLAB	0.09	0.67	0.14	0.45	0.11	0.26	0.06	3.00	0.12	0.18	0.06	1.42	0.16	0.10	0.08	0.51	0.04	0.13	0.15	1.00	CSA	IR	
MINELAB	0.07	-0.29	0.11	-1.07	0.11	0.26	0.02	-0.72	0.1														

Standard Deviations



Standard Deviations







**SUMMARY REPORT OF INDIVIDUAL LABORATORY PERFORMANCE**  
**Zarazma Minerals Studies Company**

**GOLD SAMPLES**

Analysis	Samples Sent	Reported	Number of Outliers
Fire Assay	Yes (10)	Yes	0
Aqua Regia	Yes (10)	No	-
Low Level	Yes (5)	Yes	0

**Au & Ag IN CARBON SAMPLES**

The laboratory were not sent any samples for Au & Ag in carbon analysis.

Analysis	Reported	Number of Outliers
Gold	-	-
Silver	-	-

**BASE METAL SAMPLES**

10 Base Metal samples were sent to the laboratory for analysis by Total and / or Partial methods.

Analysis	Total Digest		Partial Digest	
	Reported	Number of Outliers	Reported	Number of Outliers
Silver	No	-	Yes	0
Copper	Yes	0	No	-
Lead	Yes	0	No	-
Zinc	Yes	1	No	-
Nickel	Yes	0	No	-
Arsenic	No	-	Yes	0
Cobalt	Yes	1	No	-

**ORE GRADE BASE METAL SAMPLES**

6 Ore Grade Base Metal samples were sent to the laboratory for analysis.

Analysis	Reported	Number of Outliers
Copper	Yes	0
Lead	Yes	0
Zinc	Yes	0
Nickel	Yes	0
Silver	Yes	0
Sulphur	Yes	0

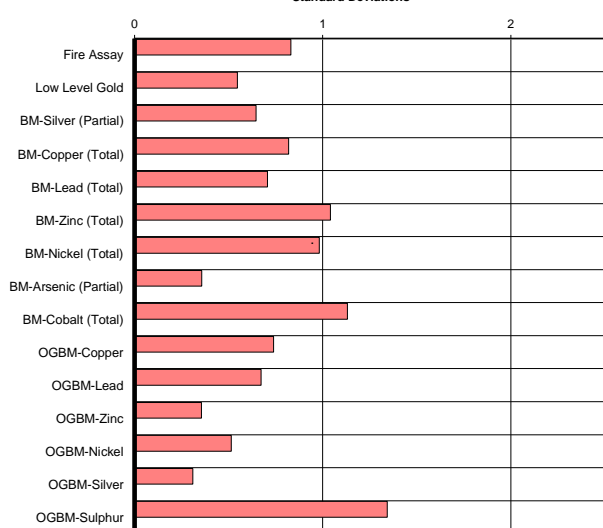
**SULPHUR SAMPLES**

The laboratory were not sent any Sulphur samples for analysis.

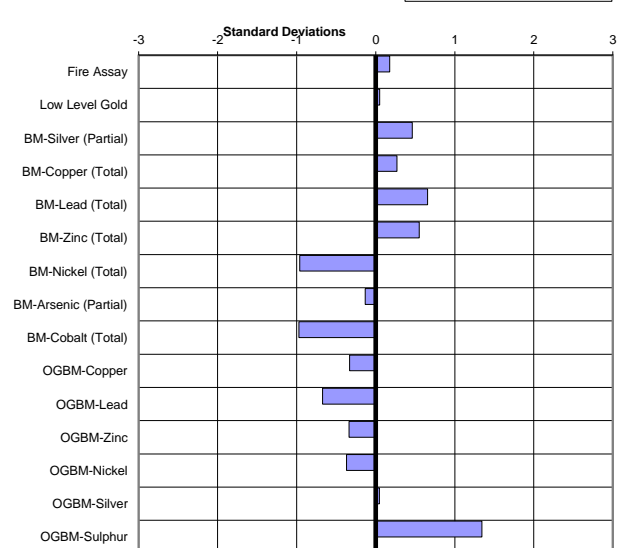
Analysis	Reported	Number of Outliers
Sulphur	-	-
Carbon	-	-

**ERROR GRAPHS**

Mean of Absolute Standardized Values  
Standard Deviations



Mean of Standardized Values



**FURTHER INFORMATION**

The samples analysed in this survey are available for purchase. Please contact us or visit [www.geostats.com.au](http://www.geostats.com.au) for a complete listing of available materials.

To discuss this report, please contact us on +618 9314 2566, or [srr@geostats.com.au](mailto:srr@geostats.com.au)