OD6 METALS LTD

ASX Announcement

20 May 2026

ASX: OD6

HISTORIC UNION CARBIDE TESTWORK INDICATES POTENTIAL TO PRODUCE ACIDSPAR AT QUINN FLUORSPAR PROJECT

Historical testworks achieved acid-grade concentrate of 97.83% CaF_2 via flotation, de-risking the processing pathway at Quinn

HIGHLIGHTS

- **Historic metallurgical testwork** completed by Union Carbide Corporation (and not OD6) **confirms strong upgrade potential** for fluorspar mineralisation **at both Mammoth and Horseshoe**
- Testwork was performed on **a low-grade 28.29% CaF_2 sample from Mammoth** and a **high-grade 58.57% CaF_2 sample from Horseshoe**
- **Conventional Grinding and Flotation was identified as the primary and most effective method**, capable of producing high-grade concentrate from the feed material
- **Historical Union Carbide and Galigher Company testwork indicated concentrate grades of 95.0% CaF_2 at 82.7% recovery and 97.83% CaF_2 at 70% recovery from Mammoth mineralisation.**
- **The historical results suggest Quinn mineralisation may be capable of producing Acidspar using conventional grinding and flotation methods, subject to confirmation through modern metallurgical testwork.** The **testwork completed was preliminary and unoptimised** allowing for further enhancement of product quality and recoveries.
- **Recent OD6 field programs have collected extensive metallurgical samples across multiple prospects** at Quinn ready for modern day metallurgical testing
- Samples to be sent for **optical ore sorting** testwork with TOMRA (Germany)
- Additional **new metallurgical flotation testwork planned to commence this quarter**
- OD6 to apply for bulk sample permits across multiple areas to support advanced metallurgical testwork
- The data **establishes a significant metallurgical foundation**, potentially reducing the scope and cost of future metallurgical programs required to support development studies at Quinn

Managing Director Brett Hazelden, commented:

"The historical Union Carbide metallurgical testwork provides encouraging evidence that fluorspar mineralisation at Quinn may be amenable to conventional processing techniques.

Importantly, the historic results suggest the potential to upgrade both low-grade and high-grade mineralisation to produce commercial fluorspar concentrates, including acid-grade product, subject to confirmation through modern metallurgical testwork.

With extensive representative samples now collected from across the project, OD6 is preparing to commence modern metallurgical programs, including optical ore sorting with TOMRA and flotation optimisation with specialist laboratories.

These programs are designed to validate the historical results and support the development of Quinn as a potential domestic US source of high-grade fluorspar."

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UNION CARBIDE HISTORIC METALLURGICAL TESTWORK

OD6 Metals Limited ("OD6" or "the Company") is pleased to report the identification and review of historic metallurgical testwork completed by Union Carbide Corporation ("UCC") on fluorspar mineralisation from the Mammoth and Horseshoe deposits, part of the Quinn Fluorspar Project in Nevada, USA.

The metallurgical programs, completed in 1957, provide valuable early-stage validation of the beneficiation characteristics of the Quinn mineralisation.

Data Acquisition

As recently announced, the Company has acquired a rare dataset of Company records from Union Carbide Corporation (refer announcement dated 7 May 2026).

The dataset was acquired for a nominal value representing exceptional value against an estimated replacement cost in excess of A$1.0 million at current market rates. The acquired Union Carbide data includes high-quality scans of cross-sections, maps, and geological records from historical exploration programs, providing OD6 with a significant informational advantage.

Metallurgical testwork was included in the dataset inclusive of *grinding and flotation* further enabling prior works to be utilised for the upcoming preliminary metallurgical testwork to assess processing characteristics and support future development studies.

The acquisition represents a major de-risking milestone for the Quinn Fluorspar Project and positions OD6 to execute a highly targeted, capital-efficient exploration program at one of North America's most prospective fluorspar assets.

Cautionary Statement

The historical metallurgical testwork results referred to in this announcement were documented by Union Carbide Corporation and The Galigher Company in 1957 prior to the introduction of Appendix 5A of the ASX Listing Rules and JORC Code (2012 Edition) (**JORC Code 2012)**. Due to limitations with these historical reports, the Company notes that the metallurgical test results in this announcement **are not** JORC Code 2012 compliant and are instead provided on a provisional basis under the format of ASX Mining FAQ 36.

The Competent Person undertook a review of the historical reports to ensure reliability and compliance with Mining FAQ 36, including identifying areas of limitation and areas that will require field validation by the Company as part of its ongoing exploration activities and metallurgical testing at the Quinn Fluorspar Project. Such review indicated that the reported head grades are consistent with grades observed in recent field sampling conducted by the Company, and that the flotation reagents and processing techniques described remain broadly consistent with conventional fluorspar processing methods used today. In addition, no material inconsistencies were identified and the results were deemed satisfactory for reporting purposes in accordance with Mining FAQ 36.

For the purposes of ASX Mining FAQ 36, the Company confirms that:

- The exploration results in this announcement have not been reported in accordance with the JORC Code 2012;
- a Competent Person has not done sufficient work to disclose the Exploration Results in accordance with the JORC Code 2012;

- it is possible that following further evaluation and/or exploration work that the confidence in the exploration results reported in this announcement may be reduced when reported under the JORC Code 2012;
- that nothing has come to the attention of Company that causes it to question the accuracy or reliability of the historical exploration results referred to in this announcement; but
- the Company has not independently validated the historical exploration results contained in this announcement and therefore is not to be regarded as reporting, adopting or endorsing those results.

The Company has addressed the additional information required pursuant to ASX Mining FAQ 36 in the table at Appendix 1 of this announcement.

About Union Carbide

Union Carbide Corporation is a historically significant US industrial company, founded in 1917, with a legacy of technical excellence in chemicals, critical minerals and resource development across the US. Its historical exploration programs were conducted to high technical standards, with datasets often regarded as robust and suitable for modern geological reinterpretation. Union Carbide was acquired by The Dow Chemical Company in a transaction valued at $11.6 billion.

Acidspar and Metspar

Fluorspar (also known as fluorite) is a simple mineral with the formula CaF_2, which contains 48.9% fluorine by weight. Fluorspar is the main mineralogical source of fluorine. High-grade fluorspar mineralisation is typically upgraded through simple processing to produce concentrates known as Acidspar, and Metspar.

MetSpar is a mineral product containing >60% fluorspar (CaF_2) and is sold to the steel industries as a fluxing agent. As a fluxing agent, the MetSpar improves slag fluidity, remove impurities, lower the melting temperature, protect refractory materials and to enhance high-end stainless steel products. MetSpar needs to be >60% CaF2, and less than 5,000ppm lead (Pb) and 3,000ppm sulphur (S).

AcidSpar is an upgraded mineral product containing >97% fluorspar (CaF_2) and is sold to the chemical industry for hydrofluoric acid production, and ultimately is used in the nuclear fuels industry, battery technologies, solar panels, defence technologies and AI chip manufacturing. AcidSpar requirements are indicated to be <1.5% silica (SiO2), 10-12ppm arsenic, <1,000ppm sulphur (S) and 100-550ppm phosphorous (P). Penalties or refusal are potentially applied for high lead (Pb) and other base-metals (Cu, Zn, Mo), and pollutants such cadmium, chromium or any radioactive elements such as uranium or thorium.

The historic testwork demonstrates that Quinn mineralisation has the potential to produce **both Metspar and premium Acidspar products**, depending on processing configuration and optimisation.

Mammoth Testwork (1957)

A preliminary metallurgical program undertaken by The Galigher Company for UCC to evaluate a sample of **low-grade fluorspar ore** for the potential amenability to produce Acidspar via separation and flotation techniques

Key details from the records (refer Appendix 2) inclusive of findings by The Galigher Company, September 13, 1957, include:

- **Head grade** sample of approximately **28.3% CaF_2**
- **Screen analysis** – It was stated that "*the results did not indicate any effective concentration by such techniques*"
  OD6 review: the screen analysis showed that whilst there was some difference in size and grade, a final processing facility would need to treat the full material and not a select screened portion.
- **Heavy media separation** (HMS) – a single HMS media was selected at 2.674 specific gravity on ore as received with minus 10 mesh (2mm) removed and screened at 3 mesh (6.68mm) and 6 mesh (3.327mm). No discernible gravity separation point was noted however, It was commented that "additional test work on heavier media would be necessary in order to fully evaluate"
  OD6 review: there was insufficient HMS media specific gravities selected to provide useful insight into gravity separation potential. There was however some notable separation of CaF_2 from the waste material. Different selected screen sizing and specific gravities may yield optimised results.
- **Flotation** – only preliminary tests were conducted on six samples.
  - Test 6 conditions: 50% solids, pH not stated, 3.0 soda ash, 5.0 silicate, 0.3 oleic acid 0.5 quebracho; followed by cleaner float 2.0 silicate, 0.1 quebracho; followed by boiling with 0.1 oleic acid, clean three times using 0.5 silicate
    OD6 note: the flotation tests should be considered sighter test only to prove that an Acidspar product can be achieved, with further optimisation testwork required.

  - "***the flotation tests indicate that high recoveries of fluorspar can readily be achieved from a 65 mesh (208 micron) grind in a product assaying over 95% CaF_2 at 82.7% Recovery***"
  - ***"boiling of the concentrate allowed for the production of an Acidspar grade of 97.83% at 70 % Recovery"***
  - "*Future Testwork – there remains several points to be investigated in order to determine the optimum conditions and recoveries for this ore*"

OD6 review: The results suggest that Mammoth mineralisation is **amenable to beneficiation and floatation**, with potential to produce commercial-grade fluorspar concentrates.

Notably, the ability to upgrade low-grade material to high-grade concentrate supports the broader scale potential of the system.

A modern day test program would consider mineralogy to identify a rougher float grind size followed by a regrind and multistage cleaner float. This would optimise concentrate grade, recovery and further optimise reagent selection and consumption.

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Horseshoe Testwork (1957)

Preliminary metallurgical amenability testing was completed by the Union Carbide Nuclear Company, and undertaken on Horseshoe mineralisation included screening, heavy media separation and flotation circuits.

Key details from the records (refer Appendix 3) inclusive of findings by L.E.Saussa UCC October 29, 1957, include:

- **Head grade** sample of approximately **58.6% CaF_2**
- **Specific gravity** of the minerals 3.01 - 3.25 CaF_2
- **Screen analysis** – It was stated that "*it is apparent that there is no tendency for the minerals to distribute themselves into any specific size fractions*"
  OD6 review: the screen analysis showed that whilst there was some difference in size and grade, a final processing facility would need to treat the full material and not a select screened portion.
- **Heavy media separation** (HMS) – various HMS media gravities were tested from 2.48 to 2.85 specific gravity on ore as received with minus 10 mesh (2mm) removed. No discernible gravity separation point was noted however, It was commented that "HMS is not usually the most economical concentrating method"
  OD6 review: utilising HMS on ore as received with minus 10 mesh (2mm) removed has little utility given the coarse nature of the material which should really be crushed prior to conducting the testing.
- **Flotation** – only preliminary tests were conducted on eight samples.
  - 4 tests at 20OC, 70% solids, pH 9.1 to 9.4, 0.5 to 1.0 soda ash, 0 to 1.5 silicate, 0.2 oleic at 8 to 10 minute grind time.
  - 4 tests at 60OC, 70% solids, pH 9.1 to 9.4, 0.5 soda ash, 0 to 1.0 silicate, 0.05 to 0.1 oleic at 8 to 10 minute grind time.
  OD6 note: the flotation tests should be considered as a rougher or sighter test only as no typical cleaner float seen in current process circuit design, which generally improves recovery and concentrate grade:
  - **tests produced concentrates of up to ~89% CaF_2 and up to ~90% recovery, indicating strong amenability to conventional processing**
  - "*Exploratory tests at room temperature with conventional reagents for fluorite concentration indicates a typical fluorite flotation could be expected*"
  - "*Increasing the pulp temperature (60^{O}C) improved results with less reagent consumption*", suggesting optimisation upside
  - "*Tails analysis showed no tendance for the minerals to distribute in any specific size fraction*"
  - "*An increase in grinding time does seem to improve recovery*"

OD6 review: The results suggest that Horseshoe mineralisation is **amenable to beneficiation and floatation**, with potential to produce commercial-grade fluorspar concentrates.

A modern day test program would consider mineralogy to identify a rougher float grind size followed by a regrind and multistage cleaner float. This would optimise concentrate grade, recovery and further optimise reagent selection and consumption.

It is noted that a second program was due to commence at the Galigher Company, an Ore Testing and equipment supplier in Salt Lake City, in July 1958 with new samples provided but the program was put on hold and never recommenced.

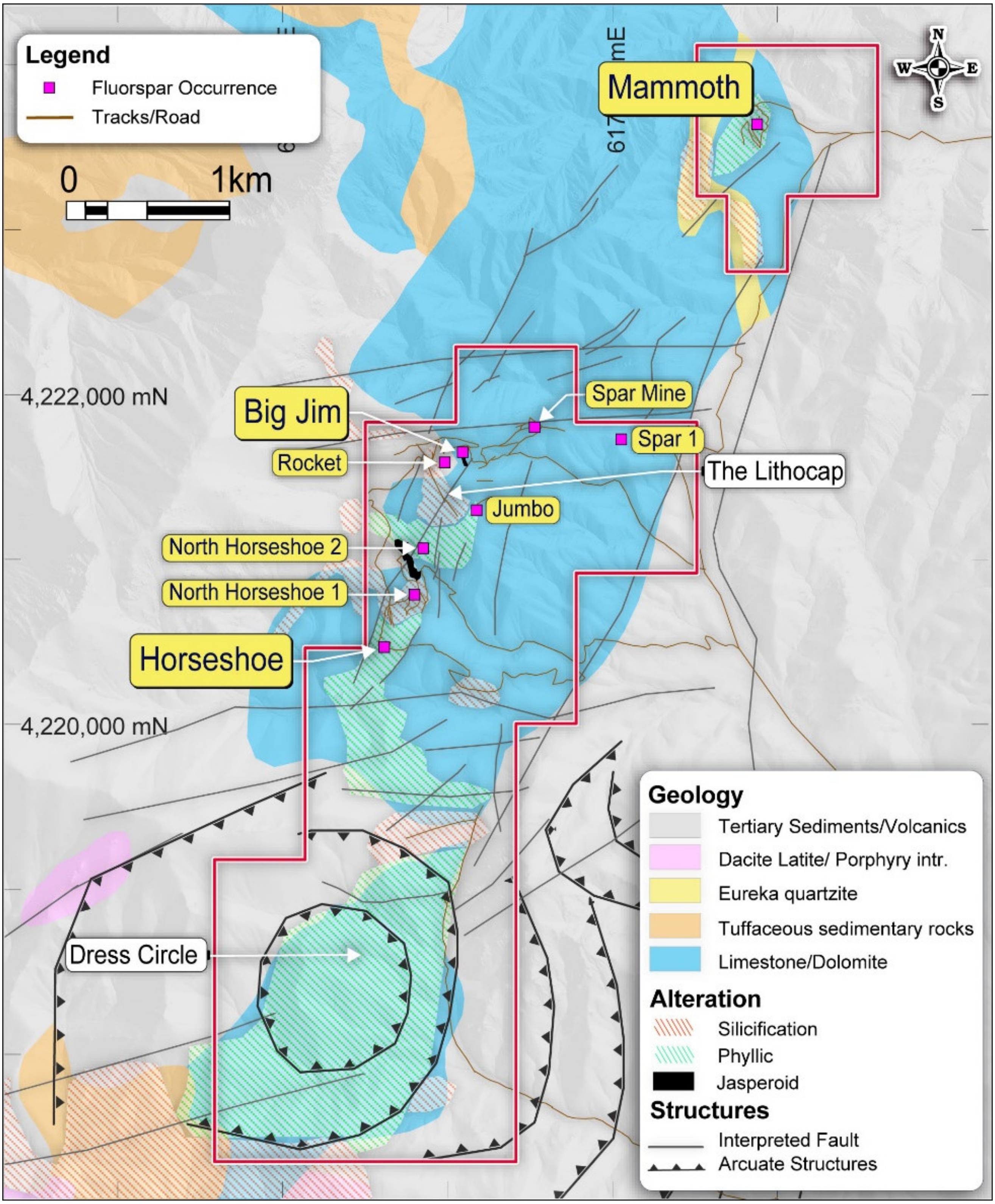

Figure 1: *Quinn Fluorspar Project with, deposit locations, background geology and alteration map (refer release dated 25 March 2026 for further information)*

NEXT PHASE METALLURGICAL PROGRAM

OD6 is advancing a staged metallurgical testwork program to validate and optimise processing flowsheets.

The historic data establishes a significant metallurgical foundation, potentially reducing the scope and cost of future metallurgical programs required to support development studies at Quinn

Recent OD6 field programs have collected extensive metallurgical samples across multiple prospects at Quinn ready for modern day metallurgical testing. OD6 intends to use existing cash reserves and/or funds raised from future capital raisings to undertake this work.

- Samples to be sent for optical ore sorting testwork with TOMRA (Germany)
  - Upgrade feed grade prior to processing
  - Reduce processing costs and plant size
  - Assess reject/waste separation efficiency
  - OD6 expects the TOMRA testwork to commence this quarter, with results to be available in quarter 3
- Additional metallurgical flotation testwork
  - Flotation optimisation
  - Dense media separation
  - Grind size and reagent testing
  - Product specification validation (Acidspar vs Metspar)
  - OD6 expects the flotation testwork to commence this quarter, with results anticipated to be available in in the second half of the year
- OD6 to apply for bulk sample permits across multiple areas to support advanced metallurgical testwork
  - Provide representative material for pilot-scale testing
  - Support flowsheet development
  - Generate potential **offtake samples for customers**

Due Diligence and Next Steps

As part of its due diligence program in connection with the Quinn Fluorspar Project (see announcement dated 4 March 2026, *"OD6 TO ACQUIRE ULTRA HIGH GRADE USA FLUORSPAR PROJECTS"*), OD6 intends to collect new samples from the surface showings to test the veracity of historic reports, including:

- **Digitise scanned paper logs and cross-sections** into a geological model
- Receipt and interpretation of **assay results**
- Expand **systematic channel and rock chip sampling**
- Validate and replicate **historic high-grade results**
- Undertake **detailed geological and structural mapping**
- Complete **soil geochemistry programs**
- Identify and prioritise **drill targets**
- Initiate **permitting for maiden drilling**
- Progress **metallurgical testwork planning**

Forward Looking Statements

Certain information in this document refers to the intentions of OD6 Metals, however these are not intended to be forecasts, forward looking statements, or statements about the future matters for the purposes of the Corporations Act or any other applicable law. Statements regarding plans with respect to OD6 Metals projects are forward looking statements and can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. There can be no assurance that the OD6 Metals plans for its projects will proceed as expected and there can be no assurance of future events which are subject to risk, uncertainties and other actions that may cause OD6 Metals actual results, performance, or achievements to differ from those referred to in this document. While the information contained in this document has been prepared in good faith, there can be given no assurance or guarantee that the occurrence of these events referred to in the document will occur as contemplated. Accordingly, to the maximum extent permitted by law, OD6 Metals and any of its affiliates and their directors, officers, employees, agents and advisors disclaim any liability whether direct or indirect, express or limited, contractual, tortuous, statutory or otherwise, in respect of, the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence).

Competent Persons Statement

The information in this ASX Release that relates to historical and foreign metallurgical testwork is an accurate representation of the available data and studies for the Quinn Project reviewed by Mr Brett Hazelden (Managing Director and CEO) of OD6 Metals Limited. Mr Hazelden is a Member of the AusIMM and has sufficient experience relevant to hydrometallurgical processes and mineral processing to qualify as a Competent Person as defined by the JORC Code. Mr Hazelden owns shares in the Company and participates in the Company's employee securities incentive plan. Mr Hazelden consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

No new information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

The information in this report relating to the Mineral Resource estimate for the Splinter Rock Project is extracted from the Company's ASX announcements dated 18 July 2024. OD6 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.

This announcement has been authorised for release by the Board of OD6 Metals Limited

About OD6 Metals

OD6 Metals is an Australian public company pursuing exploration and development opportunities within the critical minerals sector, namely rare earths, copper and fluorspar.

Rare Earth Elements

OD6 Metals has successfully identified clay hosted rare earths at its 100% owned **Splinter Rock Project** which is located in the Esperance-Goldfields region of Western Australia.

The Company released a Mineral Resource Estimate (MRE) for Splinter Rock in May 2024, confirming that the project hosts one of the largest and highest-grade clay-hosted rare earths deposits in Australia with an Indicated Resource of 119Mt @ 1,632ppm TREO and an Inferred Resource of 563Mt @ 1,275ppm TREO with an overall ratio of ~23% high-value Magnetic Rare Earths (MagREE).

An innovative Process Flow sheet has been selected utilising Heap Leaching, Nano-filtration and Ion Exchange Technologies that have achieved ~75% Nd & Pr overall recovery, produced a high-quality Mixed Rare Earth Carbonate or Hydroxide (MREC/H) of ~56-59% TREO, with low levels of impurities (Al, Fe, P, Si) and extremely low uranium and thorium content.

Fluorspar (Fluorite)

The Company secured an option to acquire the **Quinn Fluorspar Project in Nevada, USA**. Nevada is regarded as one of the world's premier mining jurisdictions and is currently ranked second in the 2025 Fraser Institute's Mining Attractiveness Index.

Historically a number of the Quinn Fluorspar deposits were mined in the 1950's for Fluorspar. In 1969. The United States Geological Survey (USGS) conducted a survey and confirmed fluorspar grading up to 72% CaF_2 in bulk samples.

The USA currently imports 100% of all Fluorspar consumed domestically with 68% of all global supply sourced from China (USGS 2024). Fluorspar is listed as a Critical Mineral by the USGS and is essential in the production of hydrofluoric acid, AI semi-conductor chip etching, advanced battery technologies and nuclear fuel processing with other applications in defence and aerospace technologies.

Copper

The Company is advancing the **Gulf Creek Copper-Zinc VMS Project** located near the town of Barraba in NSW.

Gulf Creek was mined at around the turn of the 20th century and was once regarded as the highest-grade copper mine (2% to 6.5% Cu) in NSW until its closure due to weak copper prices in 1912. Very little exploration has occurred at the project in over 100 years, with OD6 aiming to apply modern day exploration technologies.

The 2025 maiden drilling program successfully defined high grade copper below the historical mine plus confirmed the strong relationship between magnetism and massive sulphide mineralisation. Geophysical modelling has identified multiple, high priority and targets providing over >3km of strike in the immediate mine-stratigraphy, and over >10km across the tenement.

Corporate Directory

Managing Director	Mr Brett Hazelden
Non-Executive Chairman	Mr Piers Lewis
Non-Executive Director	Dr Mitch Loan
Financial Controller/ Joint Company Secretary	Mr Troy Cavanagh
Joint Company Secretary	Mr Joel Ives
Technical Advisor to the Board	Dr Darren Holden

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JORC 2012 – Table 1: Quinn Fluorspar Project

Section 1 Sampling Techniques and Data

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information*	• *Historic samples collected* – with unknown sampling techniques .
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• *Historic samples collected* – with unknown drilling techniques
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• *Historic samples collected* – with unknown sampling recovery
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• *Historic samples collected* – with unknown logging .
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• *Historic samples collected* – as stated in Appendix 2 and 3
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks)*	• *Assays are reported as assayed by Union Carbide Corporation or The Galigher Company. Union Carbide was a large chemical company and had its own laboratories for test work. It is not known which technique was used, though the Bidtel (Bidtel 1912) method was commonly used at this time. Refer* Appendix 2 and 3 .

Criteria	JORC Code explanation	Commentary
	and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• *Historic drill results for geology and assaying are consistent with the order of magnitude for grades and fluorspar observed and sampled at surface by the Company. And as such, is believed to be a reasonable representation, requiring further test work to confirm.*
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• *Historic samples collected* – were collected from the Mammoth and Horseshow Mineralisation areas as noted in Figure 1. *Exact locations within each mineralisation area is not recorded.*
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• *Historic samples collected* – with unknown data spacing and distribution.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• *Historic samples collected* – with orientation of data in relation to geological structure .
Sample security	• *The measures taken to ensure sample security.*	• Historic samples – with unknown security procedures
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• *Reviews of historic data was carried out by the Competent Person.*

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• *State of Nevada Mining Claims.* • *Staked in 2025 and 2026 and filed in early 2026.* • *Projects fall on Federal Land (National Forest) but are outside of the designated Wilderness Study Areas* • *The transaction terms include a 2% NSR on future production. Applicable State Royalties will apply.* • *Future work such as drilling requires permitting through the US Forest Service*
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *As noted above and in Appendix 2 and 3.*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *Principal host rocks are Paleozoic limestones and dolomites which have been altered by epithermal activity from Cenozoic volcanism and intrusions.* • *Fluorspar is reported as replacement deposits in limestone, epithermal veins and vein/breccias.*
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole*	*Historic samples collected* – were collected from the Mammoth and Horseshow Mineralisation areas as noted in Figure 1. *Exact locations within each mineralisation area is not recorded.*

Criteria	JORC Code explanation	Commentary
	○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• *Historic samples collected* – with unknown data aggregation methods
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• *Based on historic reports,.*
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• *Refer to Appendix 2 and 3*
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• *Full historic reports are included in Appendix 2 and 3*
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• *Full historic reports are included in Appendix 2 and 3*
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• *Recent OD6 field programs have collected extensive metallurgical samples across multiple prospects at Quinn ready for modern day metallurgical testing.* • *Samples to be sent for optical ore sorting testwork with TOMRA (Germany)* ○ *Upgrade feed grade prior to processing* ○ *Reduce processing costs and plant size* ○ *Assess reject/waste separation efficiency* • *Additional metallurgical flotation testwork* ○ *Flotation optimisation* ○ *Dense media separation* ○ *Grind size and reagent testing* ○ *Product specification validation (Acidspar vs Metspar)* • *OD6 to apply for bulk sample permits across multiple areas to support advanced metallurgical testwork* ○ *Provide representative material for pilot-scale testing* ○ *Support flowsheet development* ○ *Generate potential offtake samples for customers*

Appendix 1 – ASX Mining FAQ 36 requirements

Requirement	Company Response
Requirement 1: That the Exploration Results have been reported by the former owner rather than the acquirer	The historic metallurgical results in the announcement were completed by Union Carbide Corporation ("UCC") in 1957 on fluorspar mineralisation from the Mammoth and Horseshoe deposits, part of the Quinn Fluorspar Project in Nevada, USA.
Requirement 2: The source and date of Exploration Results — the announcement must attach a copy of the original report or state the location where it can be viewed	Both sources and dates are explicitly identified: • The Galigher Company, September 13, 1957 (Mammoth testwork, Lot 1344) • Union Carbide Nuclear Company, L.E. Saussa, Amenability Test OCF, October 10, 1957 (Horseshoe testwork) The original source documents are reproduced in full as Appendix 2 and Appendix 3 attached to this announcement.
Requirement 3: Which edition of the JORC Code the results were reported under and the fact that the reporting may not conform to the JORC Code 2012	The 1957 testwork from Union Carbide Corporation were documented prior to the introduction of Appendix 5A of the ASX Listing Rules and the JORC Code. The reporting of those exploration results therefore may not conform to the requirements of the JORC (2012) Code.
Requirement 4: The acquirer's view on the reliability of the Exploration Results, including by reference to any of the criteria in Table 1 of the JORC Code 2012 relevant to understanding their reliability	OD6 provides detailed reliability commentary under each test section: • Mammoth flotation: "*should be considered sighter test only… further optimisation testwork required*" • HMS testing at Mammoth: "*insufficient HMS media specific gravities selected to provide useful insight*" • Horseshoe flotation: "*should be considered as a rougher or sighter test only as no typical cleaner float seen in current process circuit design*" • Union Carbide noted as having conducted programs "*to high technical standards, with datasets often regarded as robust and suitable for modern geological reinterpretation*" A full JORC 2012 Table 1 is included as an appendix addressing each criterion on an "if not, why not" basis, consistently noting "historic samples collected – with unknown sampling/drilling/logging/recovery techniques" where applicable. The Competent Person undertook a review of the historical reports to ensure reliability and compliance with Mining FAQ 36, including identifying areas of limitation and areas that will require field validation by the Company as part of its ongoing exploration activities and metallurgical testing at the Quinn Fluorspar Project. Such review indicated that the reported head grades are consistent with grades observed in recent field sampling conducted by the Company, and that the flotation

	reagents and processing techniques described remain broadly consistent with conventional fluorspar processing methods used today. In addition, no material inconsistencies were identified and the results were deemed satisfactory for reporting purposes in accordance with Mining FAQ 36.
Requirement 5: To the extent known, a summary of the work programs on which the Exploration Results were based	Detailed summaries are provided for both deposits: *Mammoth:* Head grade 28.29% CaF_2. Screening, sink-float at SG 2.674, and preliminary flotation on six samples at 65 mesh grind, 50% solids, using soda ash, silicate, oleic acid and quebracho, including a boiling cleaning step. Results: 95% CaF_2 at 82.7% recovery and 97.83% CaF_2 at 70% recovery. *Horseshoe:* Head grade 58.57% CaF_2. Screening, HMS at SG 2.48–2.85, and flotation on eight samples at both 20°C and 60°C, 70% solids, pH 9.1–9.4, with soda ash, silicate and oleic acid at 8–10 minute grind times. Results: concentrates up to ~89% CaF_2 at up to ~90% recovery.
Requirement 6: Any more recent Exploration Results or data relevant to understanding the Exploration Results	The announcement states: "*Recent OD6 field programs have collected extensive metallurgical samples across multiple prospects at Quinn ready for modern day metallurgical testing.*" Prior OD6 announcements are cross-referenced (4 March 2026 original acquisition announcement; 7 May 2026 Union Carbide data acquisition announcement). It is noted that historic drill results are consistent with grades observed and sampled at surface by OD6.
Requirement 7: The evaluation and/or exploration work that needs to be completed to report the Exploration Results in accordance with the JORC Code 2012	The "Next Phase Metallurgical Program" section and "Due Diligence and Next Steps" section of the announcement set out the required work to be completed to report exploration results in accordance with the JORC Code 2012, including: • Optical ore sorting testwork with TOMRA (Germany) • Metallurgical flotation testwork (flotation optimisation, dense media separation, grind size and reagent testing, product specification validation) • Bulk sample permit applications • Digitising scanned paper logs into a geological model • Systematic channel and rock chip sampling; validation of historic high-grade results • Detailed geological and structural mapping; soil geochemistry programs

	• Identification and prioritisation of drill targets; permitting for maiden drilling
Requirement 8: The proposed timing of any evaluation and/or exploration work that the acquirer intends to undertake and a comment on how the acquirer intends to fund that work	The Next Phase Metallurgical Program section sets out the timing and work intended to be undertaken inclusive of funding. OD6 anticipates the TOMRA testwork to commence this quarter, with results to be available in quarter 3 and flotation testwork to commence this quarter, with results to be available in the second half of the year. OD6 intends to fund this work via existing cash reserves and/or funds raised from future capital raisings. The Company notes that completion of the acquisition of the Quinn Fluorspar Project remains subject to the Company exercising its option to acquire a 100% legal and beneficial interest in the project, together with shareholder approval for the issue of shares to the vendors as well as satisfaction of customary conditions precedent.
Requirement 9: A statement by a named Competent Person(s) that the information in the market announcement is an accurate representation of the available data and studies for the material mining project	See Competent Person Statement at page 7 above.
Requirement 10: A cautionary statement proximate to, and with equal prominence as, the reported Exploration Results, stating all five of the following:	See the "Cautionary Statement" set out on page 2 of this announcement.
(a) The Exploration Results have not been reported in accordance with the JORC Code 2012	See the "Cautionary Statement" set out on page 2 of this announcement.
(b) A Competent Person has not done sufficient work to disclose the Exploration Results in accordance with the JORC Code 2012	See the "Cautionary Statement" set out on page 2 of this announcement.
(c) It is possible that following further evaluation and/or exploration work that the confidence in the prior reported Exploration Results may be reduced when reported under the JORC Code 2012	See the "Cautionary Statement" set out on page 2 of this announcement.
(d) That nothing has come to the attention of the acquirer that causes it to question the accuracy or reliability of the former owner's Exploration Results	See the "Cautionary Statement" set out on page 2 of this announcement.
(e) The acquirer has not independently validated the former owner's Exploration Results and therefore is not to be regarded as reporting, adopting or endorsing those results	See the "Cautionary Statement" set out on page 2 of this announcement.

Appendix 2 - The Galigher Company, September 13, 1957 Mammoth Testwork (1957)

THE UNION CARBIDE ORE CORPORATION
ELY, NEVADA

PROGRESS REPORT NO. 1 COVERING TESTWORK
CONDUCTED ON YOUR SAMPLE OF LOW GRADE
FLUORSPAR ORE, OUR LOT 1344
Nevada
September 13, 1957

THE GALIGHER COMPANY
ESTABLISHED 1901

CABLE ADDRESS
GALSAL

TELEPHONE
ELGIN 9-8731

545-585 WEST EIGHTH SOUTH STREET
P. O. BOX 209
SALT LAKE CITY 10, UTAH
U. S. A.

September 13, 1957

The Union Carbide Ore Corporation
Box 487
Ely, Nevada

Attention: Mr. Ted Eyde

PROGRESS REPORT NO. 1 COVERING TESTWORK CONDUCTED ON YOUR SAMPLE OF LOW GRADE FLUORSPAR ORE, OUR LOT 1344

INTRODUCTION

In accordance with the arrangements made with you, we are pleased to submit herewith our progress report on the aforementioned subject.

A total of seven tests have been conducted during this phase of the test work. The complete details may be found appended to this report.

SAMPLE PREPARATION AND HEADING ASSAY

The sample as received was crushed through minus one inch in size. One quarter of the sample was split from the total and stage crushed through minus 20 mesh with laboratory rolls. The minus 20 mesh material represented feed for ensuing flotation tests. A heading sample split from the minus 20 mesh material assayed as follows:

LOT 1344

CaF_2 %	$CaCO_3$ %
28.29	6.21

5.02

PURPOSE

The purpose of this investigation was to determine the upgrading potential of this ore to techniques involving:

1. Screening
2. Sink - Float
3. Flotation

TEST WORK RESULTS

As mentioned above a total of seven tests have been conduced evaluating the objectives stated above.

SCREENING

One Screen Test was conducted on the crusher discharge (minus one inch). The results did not indicate any effective concentration by such techniques as shown below:

TEST NO. 4
Screen Test

	Wt. %	%CaF_2	Distr. CaF_2
+ 3 Mesh	67.1	22.6	57.6
- 3 Mesh + 6 Mesh	16.1	26.2	16.1
- 6 Mesh + 10 Mesh	6.6	33.4	8.4
-10 Mesh	10.2	46.03	17.9
Head	100.0	26.23	100.0

There is evidence of concentration in the finer sizes; however no appreciable recovery is achieved. Finer crushing might allow for higher recovery; although by so doing more waste material would possibly report in the finer sizes thus diluting the upgraded material.

SINK FLOAT

Sink Float tests were conducted on the screen products of the above illustrated test No. 4.

TEST NO. 4
SINK FLOAT TESTS

	Wt. %	CaF_2	Distr. CaF_2
+ 3 mesh Float	26.4	7.35	7.4
+ 3 mesh Sink	40.7	32.35	50.2
-3 + 6 mesh Float	6.1	5.04	1.1
- 3 + 6 mesh Sink	10.0	39.20	15.0
- 6 + 10 mesh Float	2.8	4.76	.5
- 6 + 10 mesh Sink	3.8	54.58	7.9
- 10 mesh	10.2	46.03	17.9
Heads (calc.)	100.0	26.23	100.0

Sink @ 2.684 Specific Gravity

The above test may be summarized as follows:

	Wt. %	CaF_2%	Distr. CaF_2%
Sink @ 2.684	54.5	35.2	73.1
Float @ 2.684	35.3	6.72	9.0
- 10 Mesh	10.2	46.03	17.9
Heads (calc.)	100.0	26.23	100.0

On basis of the above 35 per cent of the material containing only 9 per cent of the CaF_2 values can be rejected by sink-float. Higher selectivities might be achieved utilizing heavier meda density; however it is probable that the recovery would be lower. Additional test work on heavier media would be necessary in order to fully evaluate this point.

FLOTATION TEST WORK

The flotation tests indicate that high recoveries of the fluorspar can readily be achieved from a 65 mesh grind in a product assaying over 95 per cent CaF_2.

Boiling of the concentrate allowed for production of an acid grade spar; although the recovery was somewhat lower. It is possible that upon circulation of the cleaner tails a higher recovery might be obtained without unduly affecting the high CaF_2 assay necessary for acid grade spar. Illustrated below are the test results cited:

TEST NO. 6
FLOTATION TEST
65 Mesh Grind

	Wt. %	% CaF_2	% $CaCo_3$	% SiO_2	% C_2O_3	Distr. % CaF_2
Cln. Conc.	20.0	97.83	.53	1.08	.50	70.0
Cln. Tails	13.6					
Ro. Tails	66.4					
	100.0					100.0
Heads (assay)		28.29				

The cited test producing the acid grade spar utilized the following procedure:

1. Grind at 50 per cent solids with 3.0 pounds soda ash.
2. Dilute to 25 per cent solids and condition with .3 pounds oleic acid (x-25 emulsion), .5 pounds quebracho, and 5.0 pounds sodium silicate.
3. Float for 4 minutes.
4. Clean froth from step 3 with .1# quebracho, and 2.0 pounds silicate for 3 minutes.
5. Boil froth from step 4 with .1 pound oleic acid for 10 minutes
6. Clean three times using .5 pound sodium silicate in each cleaner.

Flotation tests also indicated:

1. Finer grinds did not allow for improved results over the 65 mesh grind.
2. Quebracho and reduced fatty acid additions are effective in reducing the amount of lime floating.
3. Multi stage cleaning is effective in grading up Fluorspar.

FUTURE TEST WORK

There remains several points to be investigated in order to determine the Optimum conditions and recoveries for this ore. However since in the original discussions it was indicated that the test work was preliminary in nature no elaborate test work has been conducted. Briefly the points for further investigationare:

1. The use of a heavier media (above 2.684) in sink float work.
2. Crushing the ore through minus 3 mesh, screening and sink float work.

3. The effect of circulating the cleaner tails in the flotation tests (ie: closing the circuit).

4. Reagent studies in the flotation circuit.

Additional testwork on this sample will be held in abeyance pending your review and desire to go ahead. We shall continue to store the remaining samples for a three month period unless otherwise directed.

We have enjoyed conducting this phase of your operation. We wish to assure you of our continued interest in your problems. If at anytime we may be of service in the future, please do not hesitate to call.

Yours very truly.

THE GALIGHER COMPANY

B. J. Bullen, Metallurgist

rm

Cc: Mr. A. E. Buller
Union Carbide Ore Corp.
30 East 42nd Street
New York, New York

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY

P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 8/26/57
By B. R.

Testing No. 1

Name Union Carbide Ore Corp.

PRODUCT	Weight	Percent Weight	ASSAY CaCo3
			14.06
Cln Conc #2	338	33.6	
Cln Tails Comb.	87	8.6	
Ro Tails	583	57.8	
Heads	1008	100.0	

LBS. PER TON

	B M	Conc	Float	#1 Cln Float	#2Cln Float
Time (Min)	10	1	4	3	3
Soda Ash	3				
Sodium Silicate		2.0		2.0	
Oleic Acid & x-25 (10-1)		1.0	.5		
PH			9.5		

GRINDING

Mesh	%	Cum. %
+ 48		
+ 65	2.2	
+100	7.3	
+150	14.4	
+200	10.9	
+325	23.1	
−325	42.1	

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY

P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 8/26/57
By R.R.

Testing No. 2

Name Union Carbide Minerals Corp.

PRODUCT	Weight	Percent Weight	ASSAY										DISTRIBUTION			
Cln Conc # 2	283	27.0		6.96												
Cln Tails Comb.	79	7.8														
Ro Tails	654	64.3														
Heads	1016	100.0														

LBS. PER TON

	B M	Conc	Float		#1 Cln Float	#2 Cln Float
		1	4		3	3
Time (Min.)	10					
Soda Ash	3.0					
Sodium Silicate		5.0			2.0	
Oleic Acid & x-25 (10-1)		.2				
Ph			9			

GRINDING

Mesh	%	Cum. %
+ 48		
+ 65	2.2	
+100		
+150		
+200		
+325		
−325		
-200	65.2	

THE GALIGHER COMPANY
P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

CABLE "GALSAL"

TELEPHONE ELGIN 9-8731

ORE TESTING DEPARTMENT

Our Lot No. 1344
Date 8/27/57
By R. B.

Testing No. 3

Name Union Carbide Ore Corp.

PRODUCT	Weight	Percent Weight	ASSAY CaF2	CaCo3	S102	R203							DISTRIBUTION CaF2				
Cl Conc. #2	264	26.0	93.12	1.99	4.44	0.44		24.2					85.5				
Cl Tails Combined	70	6.9															
Ro Tails	678	67.1						28.3									
Heads	1012	100.0	28.29														

LBS. PER TON

	B M	Conc	Float		#1 Cln Float	#2 Cln Float
Time (Min.)	10	1	4		3	3
Soda Ash	3				2	
Sodium Silicate		5.0				
Oleic Acid & x-25 (10.1)		.3			.1	.1
Quebracho		.5				
Ph			9.5			

GRINDING

Mesh	%	Cum. %
+ 48		
+ 65	2.2	
+100		
+150		
+200		
+325		
—325		
-200	65.2	

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY

P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 8/28/57
By R.B.

Testing No. 4 Name Union Carbide Ore Corp.

Screening and Sink-Float Test - Heads crushed through 1 inch - Specific Gravity @ 2.684

PRODUCT	Weight	Percent Weight	Assay CaF2		Distribution CaF2
+ 3 mesh Float	520	26.4	7.35	194	7.4
+ 3 mesh Sink	799	40.7	32.35	1317	50.2
-3 + 6 mesh Float	120	6.1	5.04	30	1.1
-3 + 6 mesh Sink	197	10.0	39.20	392	15.0
-6 + 10 mesh Float	56	2.8	4.76	13	0.5
-6 + 10 mesh Sink	75	3.8	54.58	207	7.9
-10 mesh	200	10.2	46.03	470	17.9
Head (Calc.)	1967	100.0	26.23	2623	100.0

LBS. PER TON

GRINDING

Mesh	%	Cum. %
+ 48		
+ 65		
+100		
+150		
+200		
+325		
—325		

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY
P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-3731

Our Lot No. 1344
Date 8/28/57
By B.R.

Testing No. 4 Cont'd. Name Union Carbide Ore Corp.

Summary of Screening Tests

PRODUCT	Weight	Percent Weight	ASSAY CaF2		Distribution CaF2
-1 inch ∱ 3 mesh		67.1	22.5	1511	57.6
-3 Mesh		32.9	33.8	1112	42.4
Head (Calc.)		100.0	26.23	2623	100.0
-1 inch ∱ 6 mesh		83.2	23.3	1933	73.7
-6 Mesh		16.8	41.1	690	26.3
Head (Calc.)		100.0	26.23	2623	100.0
-1 inch ∱ 10 mesh		89.8	24.0	2153	82.1
-10 mesh		10.2	46.03	470	17.9
Head (Calc.)		100.0	26.23	2623	100.0

LBS. PER TON

GRINDING

Mesh	%	Cum. %
+ 48		
+ 65		
+100		
+150		
+200		
+325		
—325		

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY

P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 8/28/57
By B. B.

Testing No. 4 (Cont'd) Name Union Carbide Ore Corp.

Summary of Sink Float Test

PRODUCT	Weight	Percent Weight	ASSAY CaF_2										DISTRIBUTION CaF_2				
Sink at 2.684		54.5		35.2				1916					73.1				
Float at 2.684		35.3		6.72				237					9.0				
- 10 Mesh		10.2		46.03				470					17.9				
Head		100.0		26.23				2623					100.0				
Combined Sink & -10 Mesh		64.7		36.9				2386					91.0				
Sink at 2.684		60.7		35.2				1916					89.0				
Float at 2.684		39.3		6.72				237					11.0				
/ 10 mesh Head (Calc)		100.0		24.0				2153					100.0				

LBS. PER TON

GRINDING

Mesh	%	Cum.
+ 48		
+ 65		
+100		
+150		
+200		
+325		
—325		

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY
P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 8/27/57
By R. B.

Testing No. 5
As Test 3 Finer Grind

Name Union Carbide Ore Corp.

PRODUCT	Weight	Percent Weight	ASSAY CaF2	CaCo3	SiO2	R2O3	Total	DISTRIBUTION CaF2
Cl Conc # 2	260	25.4	93.48	1.67	4.08	.60	99.83	84.0
Cl Tails Cmb.	103	10.1						
Ro Tails	660	64.5						
Heads	1023	100.0	28.29					

LBS. PER TON

	BM	Cond.	Float	#1 Cl Float	#2 Cl Float
Time (Min.)	20	1	4	3	3
Soda Ash	3			2.0	
Sodium Silicate		5.0			
Oleic Acid & x-25 (10-1)		.3		.1	.1
Quebracho		.5			

GRINDING

Mesh	%	Cum.
+ 48		
+ 65		
+100	1.3	
+150	7.4	
+200	9.2	
+325		
−325	56.9	
∤ 200	25.2	

ORE TESTING DEPARTMENT

CABLE "GALSAL"

THE GALIGHER COMPANY
P. O. BOX 209 — 545-555 WEST 5TH SOUTH STREET
SALT LAKE CITY 10, UTAH – U.S.A.

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 9/7/57
By R. R.

Testing No. 6 Name Union Carbide Ore Corporation

As Test 3 Boil #1 Cl Conc and reclean 3 times with Silicate

PRODUCT	Weight	Percent Weight	ASSAY CaF2	CaCo3	SiO2	R2O3	Total	DISTRIBUTION CaF2
			97.83	.53	1.08	.50	99.96	70.0
#4 Cl Conc	200	20.0						
Cl Tails #2,3 and 4	86	8.6						
Cl Tails #1	50	5.0						
Ro Tails	670	66.4						100.0
Heads	1006	100.0	28.29					

LBS. PER TON

	BM	Cond	Float	#1 Cl Float	Cl Conc Boil	#2 Cl Float	#3 Cl Float	#4 Cl Float
Time (Min.)	10	1	4	3	10			
Time (Min.)		.3			.1			
Oleic Acid & x-25 (10:1)		.5		.1				
Quebracho		.5		2.0		.5	.5	.5
Sodium Silicate		5.0						
Soda Ash	3.0							
Ph			9.0					

GRINDING

Mesh	%	Cum.
+ 48		
+ 65	2.2	
+100		
+150		
+200		
-200	65.2	
-325		

THE GALIGHER COMPANY
P. O. BOX 209 — 545-585 WEST 8TH SOUTH STREET
SALT LAKE CITY 10, UTAH — U.S.A.

ORE TESTING DEPARTMENT

CABLE "GALSAL"

TELEPHONE ELGIN 9-8731

Our Lot No. 1344
Date 9/7/57
By B.B.

Testing No. 7 Name Union Carbide Ore Corporation

Multistage cleaning with Silicate

PRODUCT	Weight	Percent Weight	Assay CaF2	Assay CaCo3	Assay SiO2	Assay R2O3	Assay Total	Distribution CaF2
Cl Conc.	245	24.5	95.55	.87	2.84	.56	99.82	82.7
Cl Tails	111	11.1						
Ro Tails	644	64.4						
Heads	1000	100.0	28.29					

LBS. PER TON

	BM	Conc	Float	#1 Cl Float	#2 Cl Float	#3 Cl Float	#4 Cl Float	#5 Cl Float
	10	1	4	3	3	3	3	3
Sodium Silicate		5		2	.5	.5	.5	.5
Quebracho		.5		.1	.1	.1	.1	.1
Soda Ash	3.0							
Oleic Acid & x-25 (10.1)		.3						

GRINDING

Mesh	%	Cum.
+ 48		
+ 65	2.2	
+100		
+150		
+200		
-200	65.2	
-325		

Telephone EMpire 3-3302

Hand Sample Serial 21221-23

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

J. V. SADLER, President
A. C. SELBY, Vice-Pres. & Treas.
LILY M. HOTTINGER, Secretary

Mine Union Carbide 1344

August 28, 1957 Salt Lake City 10, Utah

RESULTS PER TON OF 2000 POUNDS

No.	GOLD Ozs. per Ton	SILVER Ozs. per ton	LEAD Per Cent Wet	COPPER Per Cent	~~INSOL~~ Per Cent	ZINC Per Cent	~~SULPHUR~~ Per Cent	IRON Per Cent	~~LIME~~ Per Cent	Per Cent	Per Cent	VALUE GOLD
					SiO_2		R_2O_3		CaF_2		$CaCO_3$	
Test 1	Cln Conc #2										14.06	
Test 2	Cln Conc #2										6.96	
Test ~~2~~ 3	Cln Conc #2				4.44		0.44		93.12		1.99	

Remarks

Charges $

J. V. Sadler

Telephone EMpire 3-3302

Hand Sample Serial 21242-48

Mine Union Carbide 1344

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

J. V. SADLER, President
A. C. SELBY, Vice-Pres. & Treas.
LILY M. HOTTINGER, Secretary

Salt Lake City 10, Utah

RESULTS PER TON OF 2000 POUNDS

Sept. 3, 1957

NO.	GOLD Ozs. per Ton	SILVER Ozs. per ton	LEAD Per Cent Wet	COPPER Per Cent	INSOL. Per Cent	~~ZINC~~ Per Cent CaF_2	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent	VALUE GOLD
Test 4 Minus 10 Mesh						46.03						
Test 4 Plus 3 Mesh Float						7.35						
Test 4 Minus 3 Plus 6 Mesh Float						5.04						
Test 4 Minus 6 plus 10 Mesh Float						4.76						
Test 4 Plus 3 Mesh Sink						32.35						
Test 4 Minus 3 Plus 6 Mesh Sink						39.20						
Test 4 Minus 6 Plus 10 Mesh Sink						54.58						

Remarks

Charges $

J. Sadler

Telephone EMpire 3-3302

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

J. V. SADLER, President
A. C. SELBY, Vice-Pres. & Treas.
LILY M. HOTTINGER, Secretary
Salt Lake City 10, Utah

Hand Sample Serial 21288-90

Mine Union Carbide 1344

Sept. 10, 1957

RESULTS PER TON OF 2000 POUNDS

NO.	GOLD Ozs. per Ton	SILVER Ozs. per ton	LEAD Per Cent Wet	~~COPPER~~ Per Cent SiO_2	~~INSOL.~~ Per Cent R_2O_3	ZINC Per Cent	~~SULPHUR~~ Per Cent CaF_2	~~IRON~~ Per Cent $CaCO_3$	LIME Per Cent	Per Cent	Per Cent	VALUE GOLD
Test 5 #2 Cl Con				4.08	0.60		93.48	1.67				
Test 6 Cl Conc. #4				1.08	0.52		97.83	0.53				
Test 7 Cl Cons. #5				2.84	0.56		95.55	0.87				

Remarks

Lily M Hottinger

Appendix 3 - Union Carbide Nuclear Company, L.E. Saussa, October 29, 1957. Horseshoe Testwork (1957)

UC 149-2

UNION CARBIDE

INTERNAL CORRESPONDENCE

UNION CARBIDE NUCLEAR COMPANY

BISHOP, CALIFORNIA

To (Name) Mr. W. H. Kohler
Company Union Carbide Nuclear Company
Location Reno, Nevada

Date October 29, 1957

Originating Dept.

Answering letter date

Copy to Messrs. H. L. McKinley
J. H. Sullivan

Subject

Dear Bill:

Amenability Test OCF, dated October 10, 1957, covering the fluorite ore sample received from Mr. T. H. Eyde, Union Carbide Ore Company, Ely, Nevada, is enclosed.

Yours very truly,

L. E. Sausa

L. E. Sausa:aml

UCN - 243

October 10, 1957

AMENABILITY TEST OCF

SAMPLE

This test was conducted on a sample of fluorite ore received from Mr. T. H. Eyde, Union Carbide Ore Company, Box 487, Ely, Nevada. The ore is from the "Higrade" claim and is primarily fluorite in a quartzite gangue.

The sample had the following analysis:

CaF_2	-	58.57 %	by calculation
SiO_2	-	20.63 %	by calculation

Specific gravities of these minerals:

CaF_2	-	3.01 - 3.25
SiO_2	-	2.65 - 2.66

The sample was split into three portions and was given the following tests:

1. Screen analysis, as received and after being crushed to minus 1/2 inch and minus 10 mesh.
2. Heavy media separation.
3. Fine grinding and flotation.

DISCUSSION

Screen Analysis

From the screen analysis of the ore as received and of the fractions that were crushed to minus 1/2 inch and 10 mesh, it is apparent that there is no significant tendency for the minerals to distribute themselves into any specific size fraction. Tables Nos. 1, 2 and 3 give complete screen analysis data for these tests.

Heavy Media Separation

A separation of the ore was made in the heavy media test cone at media gravities of 2.48, 2.58, 2.64, 2.69, 2.75 and 2.85. At a media gravity of 2.85, no material sank, and at a gravity of 2.48, 80% of the weight sank. This would indicate that the fluorite and gangue minerals are quite thoroughly locked in this (minus one inch plus 10 mesh) size range. When this condition is encountered, Heavy Media Separation is not usually the most economical concentrating method. H.M.S. data is shown in Table No. 4.

Flotation

Nine 1,000 gram samples were prepared for flotation and the tests were made at two temperature levels. Exploratory tests at room temperature with conventional reagents for fluorite concentration indicated a typical fluorite flotation could be expected. Data and variables are shown in Table No. 5.

Increasing the pulp temperature improved results with less reagent consumption. From the somewhat limited data obtained, the ore appears to be amenable to flotation concentration. The 89% concentrate with 85% recovery should be adequate for rougher products. Complete results are shown in Table No. 6.

One attempt was made to float the SiO_2 from the ore. The pH was adjusted to 6.0 with H_2SO_4 and a weak amine (220) was used as collector. Results (shown in Table No. 7) indicate further testing would be required to establish anything significant.

Screen analysis of Test No. 8 tails and concentrate (ground 8 minutes) and Test No. 9 tails (ground 10 minutes) were made in order to establish grind, and possibly other re-treating requirements. Tables Nos. 8, 9 and 10 show again that there is no tendency for the minerals to distribute in any specific size fraction. An increase in grinding time does seem to improve recovery.

Prepared by: G. H. Brewer
aml

Table #1

Ore as received

SCREEN SIZE	WEIGHT		ASSAY %		DISTRIBUTION %			
	%	Cum.%	CaF_2	SiO_2	CaF_2	Cum. CaF_2	SiO_2	Cum SiO_2
+ ½ inch	44.35	44.35	59.71	18.04	43.18	43.18	50.57	50.57
+3 mesh	28.27	72.62	60.86	15.12	28.06	71.24	26.99	77.56
+10	16.36	88.98	60.29	18.20	16.08	87.32	18.84	96.40
+65	7.96	96.94	70.08	5.84	9.12	96.44	2.91	99.31
+100	.79	97.73	75.84	1.82	.98	97.42	.06	99.37
+150	.55	98.28	74.69	1.06	.67	98.09	.06	99.43
+200	.50	98.78	68.93	2.04	.55	98.64	.06	99.49
+270	.39	99.17	70.85	4.38	.46	99.10	.06	99.55
+325	.16	99.33	72.19	.68	.20	99.30	.00	99.55
-325	.68	100.0	63.17	10.12	.70	100.0	.44	100.0
TOTALS	100.0		61.32	15.82	100.0		100.0	

Table #2

Ore crushed to minus ½ inch.

SCREEN SIZE	WEIGHT		ASSAY %		DISTRIBUTION %			
	%	CUM. %	CaF_2	SiO_2	CaF_2	Cum CaF_2	SiO_2	Cum SiO_2
+ 3 mesh	52.87	52.87	57.79	19.86	50.40	50.40	84.81	84.81
+10	30.02	82.86	60.86	1.66	30.14	80.54	4.04	88.85
+65	12.48	95.34	67.58	8.90	13.91	94.45	8.97	97.82
+100	1.10	96.44	75.65	2.24	1.37	95.82	.16	97.98
+150	.93	97.37	75.46	2.46	1.15	96.97	.16	98.14
+200	.64	98.01	75.65	9.48	.79	97.76	.48	98.62
+270	.55	98.56	71.42	4.26	.64	98.40	.16	98.78
+325	.29	98.85	72.77	4.30	.35	98.75	.08	98.86
- 325	1.19	100.0	62.98	11.84	1.28	100.0	1.13	100.0
Totals	100.0		60.61	12.38	100.0		100.0	

Table #3

Ore crushed to minus 10 mesh

SCREEN SIZE	WEIGHT		Assay %		DISTRIBUTION %			
	%	Cum. %	CaF_2	SiO_2	CaF_2	Cum. CaF_2	SiO_2	Cum SiO_2
+10 mesh	0		–		–		–	
+65	68.49	68.49	57.41	19.92	64.10	64.10	84.72	84.72
+100	6.33	74.82	66.62	15.02	6.88	20.98	5.90	90.62
+150	5.82	80.64	72.00	10.84	6.83	77.81	3.91	94.53
+200	3.94	84.58	72.96	5.05	4.68	82.49	1.24	95.77
+270	3.60	88.18	71.42	1.08	4.19	86.68	.25	96.02
+325	2.74	90.92	73.73	1.72	3.29	89.97	.31	96.33
−325	9.08	100.0	67.78	6.48	10.03	100.0	3.67	100.0
Totals	100.0		61.34	16.10	100.0		100.0	

Table #4

Heavy Media Separation

Ore as received with minus 10 mesh removed.

MEDIA GRAVITY	WEIGHT		Assay %		DISTRIBUTION %			
	%	Cum. %	CaF_2	SiO_2	CaF_2	Cum CaF_2	SiO_2	Cum SiO_2
2.48 Float	19.41	19.41	25.73	58.91	9.14	9.14	57.29	57.29
2.48 Sink	6.65	26.06	34.75	48.12	4.23	13.37	16.04	73.33
2.58 "	9.19	35.25	51.46	23.79	8.67	22.04	10.98	84.31
2.64 "	7.90	43.15	58.75	12.62	8.50	30.54	6.97	91.28
2.69 "	11.02	54.17	66.62	8.43	13.45	43.99	4.66	95.94
2.75 "	35.42	89.59	67.39	1.00	43.73	87.72	1.75	97.69
-10 mesh fines	10.41	100.0	67.20	4.43	12.28	100.0	2.31	100.0
Totals	100.0		54.58	19.95			100.0	

Table # 5

All tests at room temp 20 °C

Test No.	Flotation conditions & reagents #/Tons: Grind Time	Grind solids	pH	Temp	Flot solids	Soda ash	silicate	oleic	Calc. heads CaF_2	Calc. heads SiO_2	Select. Index	Concentrate grade CaF_2	Concentrate grade SiO_2	Recovery CaF_2	Recovery SiO_2
F-4	8"	70	9.1	20°C	36	.50	0	.20	57.96	23.06	14.30	82.97	2.78	77.90	1.91
F-2	8"	70	9.2	20°C	36	.50	.75	.20	59.01	20.41	1.46	77.38	15.26	33.11	18.86
F-3	8"	70	9.4	20°C	36	.50	1.50	.20	55.07	20.56	1.45	78.34	16.51	30.30	17.12
F-1	10"	70	9.4	20°C	36	1.00	0	.20	59.60	18.60	2.16	80.06	12.15	71.81	34.95
Avg	8.5"	70	9.3	20°C	36	.63	.56	.20	57.91	20.66	4.84	79.65	11.18	53.78	18.21

Table # 6

All tests at 60°C

Test No	Flotation conditions & reagents #/ton: Grind time	Grind Solids	pH	Temp	Flot solids	Soda ash	silicate	oleic	Calc. heads CaF_2	Calc. heads SiO_2	Select. INDEX	Concentrate grade CaF_2	Concentrate grade SiO_2	Recovery CaF_2	Recovery SiO_2
F-6	8	70	9.2	60°	36	.50	0	.05	51.26	35.91	12.50	89.09	2.60	85.23	3.56
F-7	8	70	9.3	60°	36	.50	.50	.05	66.57	20.68	5.68	89.09	2.38	66.23	5.72
F-8	8	70	9.4	60°	36	.50	1.0	.10	61.36	25.65	8.34	86.40	3.82	87.65	9.28
F-9	10	70	9.4	60°	36	.50	1.0	.10	63.30	25.57	8.66	85.21	4.16	90.19	10.91
	8.5	70	9.3	60°	36	.50	.62	.075	60.62	26.94	8.80	87.44	3.24	82.33	7.37

Table # 7

SiO_2 float test

Test No	Flotation conditions & reagents #/Ton: Grind time	Grind solids	pH	Temp	Flot solids	H_2SO_4	Amine 220	Calc. heads CaF_2	Calc. heads SiO_2	Select. INDEX	Concentrate grade CaF_2	Concentrate grade SiO_2	Recovery CaF_2	Recovery SiO_2
F-5	8'	70	6.0	20°C	20	.60	2.5	49.45	13.52	3.00	53.51	7.66	88.63	46.38

Table #8

Flot test #8 Tails
Grinding time 8 minutes

SCREEN SIZE	WEIGHT		ASSAY %		DISTRIBUTION %			
	%	Cum %	CaF_2	SiO_2	CaF_2	Cum. CaF_2	SiO_2	Cum SiO_2
+65 mesh	7.71	7.71	18.82	71.22	5.73	5.73	8.97	8.97
+100	15.98	23.69	30.72	58.14	19.41	25.14	15.17	24.14
+150	15.98	39.67	31.10	51.12	19.64	44.78	13.34	37.48
+200	10.13	49.80	28.03	62.30	11.23	56.01	10.31	47.79
+270	8.98	58.78	20.74	69.04	7.35	63.36	10.13	57.92
+325	3.84	62.62	20.74	69.16	3.16	66.52	4.35	62.27
−325	37.38	100.0	22.66	61.80	33.48	100.0	37.73	100.0
Totals	100.0		25.30	61.22	100.0		100.0	

Table #9

Flot test #8 Concentrate
Grinding time 8 minutes

SCREEN SIZE	WEIGHT		ASSAY %		DISTRIBUTION %			
	%	Cum. %	CaF_2	SiO_2	CaF_2	Cum. CaF_2	SiO_2	Cum SiO_2
+65 mesh	0							
+100	5.13	5.13	77.57	3.66	4.75	4.75	12.50	12.50
+150	12.60	17.73	77.57	1.12	11.66	16.41	9.21	21.71
+200	14.18	31.91	71.42	.98	12.09	28.50	9.21	30.92
+270	20.27	52.18	86.78	1.72	20.99	49.49	23.03	53.95
+325	3.23	55.41	91.39	3.50	3.52	53.01	7.24	61.19
−325	44.58	100.0	88.32	1.32	46.98	99.99	38.81	100.0
Totals	100.0		83.79	1.52	100.0		100.0	

Table #10

Flot test #9 Tails Grinding time 10 minutes.

SCREEN SIZE	WEIGHT		ASSAY %		DISTRIBUTION %			
	%	cum. %	CaF_2	SiO_2	CaF_2	Cum. CaF_2	SiO_2	Cum. SiO_2
+65 mesh	2.22	2.22	13.44	74.56	1.58	1.58	2.38	2.38
+100	9.51	11.73	22.46	62.48	11.24	12.82	8.53	10.91
+150	14.67	26.40	24.58	64.18	18.96	31.78	13.52	24.43
+200	11.49	37.89	20.35	66.64	12.29	44.07	11.00	35.43
+270	11.21	49.10	17.28	74.14	10.19	54.26	11.93	47.36
+325	4.89	53.99	11.90	76.94	3.05	57.31	5.34	52.70
−325	46.01	100.0	17.66	71.60	42.70	100.0	47.30	100.0
Totals	100.0		19.04	69.65	100.0		100.0	