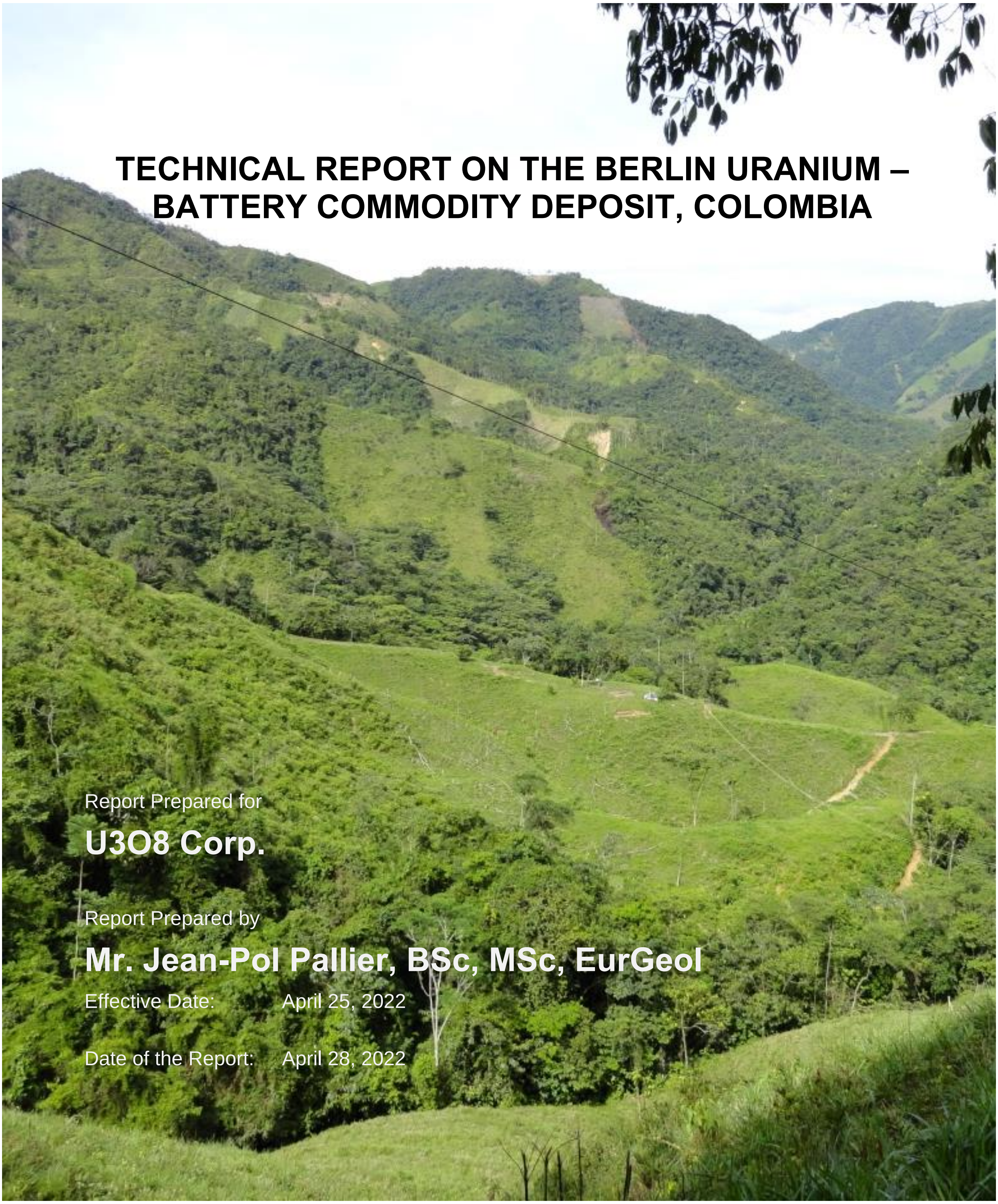

TECHNICAL REPORT ON THE BERLIN URANIUM – BATTERY COMMODITY DEPOSIT, COLOMBIA

Report Prepared for

U3O8 Corp.

Report Prepared by

Mr. Jean-Pol Pallier, BSc, MSc, EurGeol

Effective Date: April 25, 2022

Date of the Report: April 28, 2022

U3O8 TECHNICAL REPORT ON THE BERLIN URANIUM – BATTERY COMMODITY DEPOSIT, COLOMBIA

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1 SUMMARY

1.1 Introduction

U3O8 Corp. (“U3O8 Corp.” or “the Company”) is a Toronto-based, Ontario-registered company that is currently listed on the NEX platform of the TSX Venture Exchange (“TSXV”) and trades under the symbol UWE-H. The Company focuses on exploration and resource expansion of uranium and battery commodities and is seeking reactivation onto the TSXV.

Mr. Jean-Pol Pallier, BSc., M.Sc., EurGeol., was engaged by U3O8 Corp. to write this Technical Report (“Report”), the Effective Date of which is April 25, 2022, to fulfill one of the requirements for the Company to meet the listing requirements for Tier 2 status on the TSXV. Mr. Pallier is a designated EurGeol by the European Federation of Geologists and a is a Qualified Person as defined by National Instrument 43-101 (“NI 43-101”), Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators. Mr. Pallier has 27 years of experience in the resource industry and has extensive experience in uranium exploration.

In accordance with Section 1.5 of National Instrument 43-101, Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators, the Author is independent of U3O8 Corp., and is not an insider, associate, or affiliate of U3O8 Corp. As per Exchange Policy requirement (Appendix 3F), the Author declares that he has had no prior involvement with the Berlin Project.

Mr. Pallier is relying on a title opinion by Mr. Escobar, of the Colombian law firm, Escobar, Lorenzoni y Asociados, on the legal standing of the mineral concession on which the Berlin Deposit (the “Project” or “the Deposit”) is located. Mr. Escobar is independent of U3O8 Corp.

Mr. Pallier visited the Project on January 19 and 20, 2022.

This Technical Report is largely a summary of two prior technical reports: a resource estimate undertaken by Coffey Mining with an effective date of March 2, 2012 (“Coffey Mining, 2012”), and a preliminary economic assessment (“PEA”) by Tenova Mining & Minerals (Australia) Pty Ltd. (formerly Bateman Engineering Pty Ltd.) (“Tenova”) with an effective date of January 18, 2013 (“Tenova, 2013”). Both prior technical reports were undertaken by entities that are independent of U3O8 Corp.

The Company’s principal asset is the Berlin Deposit in Caldas Province of central Colombia. The Project is 100%-owned by U3O8 Corp.

The Berlin Deposit was written down in December 2016 in accordance with International Financial Reporting Standards (“IFRS”) guidelines since no material work had been done on the Project for three years and no work was planned for the near future at that time, as the Company elected to focus on advancing the Laguna Salada property. At that time, the Company’s Laguna Salada uranium-vanadium deposit in Argentina was the Company’s principal asset due to the simplicity of mining; uranium-vanadium is located within 3m of surface in unconsolidated gravel. The Company had been in severe financial difficulty during the decade-long bear market in uranium and decided to sell the Laguna Salada deposit in a transaction that was concluded on December 22, 2021, to provide funds to reactivate and advance the Berlin Deposit. Berlin was selected over Laguna Salada because of its mix of clean energy-related commodities and their relevance to the shift towards electric vehicles and the commitment of many countries to carbon neutrality and to associated aggressive net-zero goals.

1.2 Berlin: a Multi-Commodity Deposit

The Berlin Deposit contains uranium for emissions-free nuclear energy. Since the PEA was completed in 2013, the uranium price weakened steadily to a low of US$18/lb in late 2016, from which it has trended upwards, driven mainly by the growing appreciation of the role that large nuclear reactors can play in providing clean power needed for the achievement of net-zero goals. This trend has been exacerbated by the various small modular reactor (“SMR”) designs being licensed. There is growing recognition that SMRs could form a key component of clean power generation, providing constant power output that can form the core of local grids that use renewable power sources that are intermittent by nature. The concept of replacing coal-fired power stations with clusters of SMRs allows those sites that are already connected to the electricity grid and have supporting infrastructure, to be transitioned to providers of clean energy. In light of these developments, the outlook for uranium as the fuel for nuclear reactors, looks positive; a very different scenario from the bear market post the Fukushima event in 2011.

At the time that the PEA was undertaken, phosphate from the Berlin Deposit was destined principally for the agricultural fertilizer industry. Since then, phosphate has become a key component of lithium-ion batteries, specifically lithium ferro-phosphate (“LFP”) batteries. These batteries have two key advantages over other lithium-ion batteries: LFPs are thermally stable – they do not self-combust, and their price has fallen below US$100/kWh, the threshold at which electric vehicles are deemed to become economically competitive with internal combustion engines (“ICE”). These factors outweigh LFP’s lower energy density compared with some other lithium-ion battery chemistries, a consequence of which is that LFP batteries need to be physically larger than other lithium-ion batteries, to hold the same power. Not only is phosphate a potential source for the battery industry, but the process by which commodities are to be extracted from the mineralized material at Berlin currently includes the input of iron. There is a possibility, therefore, that the Berlin Project could produce ferro-phosphate, the actual commodity required for LFPs. This Technical Report recommends that the potential to produce ferro-phosphate from Berlin be investigated through test work.

The Berlin Deposit also contains nickel. Stainless steel is the main market for nickel, with growing demand from lithium-ion batteries (nickel-cobalt-aluminium (“NCA”) and nickel-manganese-cobalt (“NMC”)). NCA batteries are 80% nickel, while NMC batteries use 33% nickel with newer types using an increasing nickel component.

Berlin also contains vanadium which is used principally as an alloy that increases the strength and flexibility of steel and for vanadium redox flow batteries (“VRFB”) that are large-scale batteries that most manufacturers guarantee for 20-25 years. These are safe batteries that can be charged and discharged over their life without significant loss of capacity. VRFBs are thermally stable and have a niche in regulating power to the grid from intermittent sources such as wind and solar.

Berlin contains rare earth elements (“REE”) that are used in many hi-tech industries. Only neodymium and yttrium were included in the PEA. Neodymium is used in high-strength magnets used for electric motors and wind turbines while yttrium is used to generate red phosphors in TV screens, monitors and mobile phones, as well as in the production of superconductors and electronic filters. A recommendation of this Report is to investigate the economic impact that production of other REEs could have on the Project.

Berlin also contains molybdenum and zinc that the PEA showed could have a modest contribution to the economics of the Project. One of the two process flow options considered in the PEA also produces gypsum.

1.3 Project Description

The Berlin Project is an exploration project in Caldas Province, Colombia with defined Inferred and Indicated mineral resources of uranium, phosphate, vanadium, rare earths and other commodities contained within a mineralized sedimentary layer. The property is located about 80km northeast of the provincial capital, Manizales, and approximately 150km northwest of the national capital, Bogota. The Project lies on a mineral concession that is 7,305 hectares ("Ha") in extent. The Project is 100% owned by U3O8 Corp. through its wholly owned subsidiary Gaia Energy Investments Ltd. ("Gaia BVI") that is registered in the British Virgin Islands ("BVI").

1.4 Accessibility, Climate, Local Resources and Infrastructure

The Berlin Project lies in the foothills of the Central Range of the Andes at an altitude of 850m to 1,300m above mean sea level ("amsl"), an area that receives an average of 2,900mm of rain per year. There is an abrupt change in climate at the base of the foothills to a drier, savannah environment in the lower elevation plain of the Magdalena River, only 10km to the east of Berlin. This drier plain is the preferred location for a tailings facility should such a facility be required for the Project. One of the two process flow sheet alternatives investigated in the PEA would produce relatively small volumes of tailings that could be accommodated as paste backfill for underground mine stability.

Daytime temperatures range from 26°C to 29°C.

Berlin can be accessed by road from Bogotá, Manizales, Pereira, Medellin or Ibague, all of which have commercial airports. Berlin lies 245km by road from Bogota.

The river port of La Dorada on the Magdalena River, located 65km from Berlin, is potentially an important route to the Caribbean coast via barge to the port of Bocas de Ceniza – Barranquilla. La Dorada is 190km from Bogotá and 170km from Ibague. From La Dorada, a secondary unpaved road leads 65km westwards to Berlin, passing through the municipality of Norcasia.

In addition, a railway line links the town of La Dorada to the port town of Santa Marta on the Caribbean coast. The rail links between La Dorada and the capital, Bogota, and to the port of Buenaventura on the Pacific coast, are part of the Master Railway Plan under which all rail systems are scheduled to be refurbished by 2030.

The town closest to Berlin is Norcasia which is located 10km from the Project. It has a population of approximately 7,000 residents and is a commercial centre that has a hospital and provides public transport. There is no mining-orientated community in close proximity to the Project which implies that personnel with appropriate mining skills would need to be brought in from other parts of Colombia. The local business sector would need significant training and investment for the development of support services appropriate for a future mine and processing plant at Berlin.

The La Miel hydroelectric dam, with a capacity of 395MW, is located approximately 12km from the Project area and is a potential source of clean, renewable electricity for the operation.

1.5 History: Prior Work

1.5.1 Discovery

Uranium was identified in phosphatic strata in a regional radiometric prospecting program undertaken by the Colombian Instituto de Asuntos Nucleares ("IAN") between 1977 and 1983.

Minatome, which has now been incorporated into Orano, obtained permission from IAN to explore the Berlin Project area for uranium in 1979. Field-based exploration identified a laterally continuous sedimentary unit that had significant uranium grades. Minatome excavated three adits and 20 trenches, drilled 2,136m in 11 holes and undertook metallurgical studies.

Minatome withdrew from the Berlin area in 1981 and the United Nations Development Program (“UNDP”) became involved, focussing on the potential to recover uranium, molybdenum, vanadium and phosphate.

1.5.2 Exploration by U3O8 Corp.

U3O8 Corp. began exploration on the Berlin Project when it acquired the property in April 2010. Due to the stratiform nature of the mineralization, the principal objective was to define the extent and consistency of the known mineralized layer through trenching and drilling. The project is in hilly terrain in which trenches were excavated by hand in areas where the mineralization outcrops, with drilling conducted from platforms cut into hillsides.

Trench sites were identified using historic data and geological maps from the Minatome exploration that indicated areas of outcropping mineralization. Most of the trenches are located on the more accessible southern part and eastern flank of the syncline.

U3O8 Corp’s 2010-2011 drill program culminated with the drilling of 82 bore holes for 18,523m from which the initial Inferred and Indicated mineral resources were defined on the southern 3km of the folded sedimentary strata. Additional wide-spaced exploration drilling of 6,441m in 15 holes in the area to the north of the resource area, showed similar grades in a similar suite of commodities to those in the resource area. 11 of the 15 holes intersected mineralized layer; the mineralized sequence was faulted out in the other four holes.

1.5.3 Resource Estimation by U3O8 Corp.

U3O8 Corp. commissioned Coffey Mining to undertake a resource estimate, which complies with NI43-101 standards, based on 82 diamond drill holes for 18,522m completed on the Project by U3O8 Corp. in 2010 and 2011. The resource estimate was updated to include additional commodities in 2013 by Tenova (2013). 93% of the resource is in the Inferred category and 7% in the Indicated category.

The Author has not reviewed the data to the extent necessary to classify the historical resource estimate as a current mineral resource. Therefore, U3O8 Corp. is not treating the historical estimate as a current mineral resource.

Coffey Mining (2012) recommended that a cut-off grade of 0.04% U_3O_8 is appropriate for the reported resource estimates summarized in Table 1-1. The Author considers the 0.4% U_3O_8 cutoff grade to still be appropriate given the strength of the prices of commodities associated with the uranium and the increasing uranium price that should be supported by improving sentiment regarding nuclear as a means of reaching net-zero goals. However, it is evident from the resource estimate (Coffey Mining, 2012 and Tenova, 2013) that even a doubling of the cut-off grade to 0.8% U_3O_8 would reduce the Indicated resource to a negligible extent and the Inferred resource by 3.5%. Therefore, in the Author’s opinion, the resource estimate made by Coffey (2012) and updated for specific elements by Tenova (2013), is considered reliable.

The statistical analysis undertaken as one of the key elements of the resource estimate showed that the radiometric measurements made with a down-hole Mount Sopris probe were within 1.7%

of the grade obtained from chemical analysis in the mineralized intervals, hence there were effectively duplicate data points for the grade of each intercept used in the resource estimate for uranium.

Chemical analyses were used for the resource estimate since they included the grade of the associated elements, and not just the estimated U_3O_8 grade estimate provide by the probe. Grade composites of 0.8m were used to generate the grade data for the resource estimate. Statistical analysis was undertaken on the 0.8m composites and their distribution was reviewed in 3D. Histogram and probability plots were used to identify breaks in the data to identify possible outliers. Individual composites were ranked, and an investigation undertaken on the effect of higher grades on the standard deviation and mean of the data population. Analysis of the data showed that top-cutting of the multi-element data was not necessary for the resource estimate.

Bulk density measurements on samples from 27 mineralized intervals were used in the resource estimate.

Both traditional semi-variogram and correlation were used to analyse the spatial variability of the composites for the mineralized zones, resulting in the selection of an omnidirectional variogram being selected for the mineralized layer. The resulting variogram showed an overall good structure and generally long ranges.

The block model was created with a cell size of 4m (Easting) by 50m (Northing) by 40m (vertical) and was sub-blocked to 0.5m (Easting) by 12.5m (Northing) by 2.5m (vertical). Ordinary Block Kriging was used. A three-pass search strategy was used to estimate the U_3O_8 grade data into the mineralized zone. A sample search anisotropy was used to reflect the north-trending structure of the syncline that hosts the mineralization, and the block model volume was checked against the digital terrain model, resulting in a model that was considered by Coffey (2012) to represent the information appropriately.

An inverse distance squared to the power of two method was used for the resource estimate on the associated elements because there were fewer data points than for uranium where probe data complimented intercepts in which there had been poor core recovery.

Indicated resources were defined in an area in which the intercept spacing was 60m by 130m. Inferred resources were based on data with an approximate 200m spacing and areas with a data spacing greater than this were unclassified and were excluded from the resource estimate.

Infill drilling is required to conform to the 60m by 130m intercept spacing required for the Indicated resource category in order to update the resource classification from 93% Inferred to Indicated. This applies to the areas that were not classified as resources.

The Company does not have additional information that was obtained subsequent to the resource estimate by Coffey Mining (2012) and Tenova (2013) that is relevant to the historic resource estimate.

In order to make the historic resource estimate current, additional check sampling would need to be done. Statistical analysis would be required to be rerun on the intercepts and the appropriateness of the cell size re-established as a check on the cell size selected by Coffey Mining (2012). A block model would then need to be re-run and the statistical breaks that were used by Coffey Mining (2012) to classify the resource as Indicated or Inferred would need to be checked.

Further details of the resource estimate are provided in Section 6.5.

Table 1-1. Summary of mineral resource estimates for commodities in the Berlin deposit (Coffey Mining, 2012 and Tenova, 2013). (Abbreviations: million tonnes (Mt), tonnes (t), million pounds (Mlb), million ounces (Moz)).

Commodity	Tonnage of Mineralized Material	Average grade	Mass of Contained Commodity	Tonnage of Mineralized Material	Average grade	Mass of Contained Commodity
	Indicated Resource			Inferred Resource		
Uranium	0.6Mt	0.11%	1.5Mlbs	8.1Mt	0.11%	19.9Mlbs
Phosphate		8.4%	0.05Mt		9.4%	0.76Mt
Vanadium		0.4%	5.9Mlb		0.5%	90Mlb
Yttrium		460ppm	290t		500ppm	4,100t
Molybdenum		570ppm	0.8Mlb		620ppm	11Mlb
Nickel		0.2%	3.1Mlb		0.2%	42Mlb
Silver		2.8ppm	0.06Moz		3.4ppm	0.89Moz
Rhenium		6.1ppm	3.9t		6.8ppm	55t
Neodymium		110ppm	70t		100ppm	810t
Zinc		0.3%	4.4Mlb		0.3%	45Mlb

The Author has not reviewed the data to the extent necessary to classify the historical resource estimate as a current mineral resource. Therefore, U3O8 Corp. is not treating the historical estimate as a current mineral resource.

1.5.4 Metallurgical Test Work & Mineral Processing

Split core from 34% of the holes drilled in the Project were used for extensive metallurgical test work. The approach to development of the process flow sheet on which the PEA was based (Tenova, 2013) can be summarized as having three main components: beneficiation of the crushed mineralized material, leaching to extract the commodities of interest from the crushed rock, and thirdly, the extraction of the commodities from the pregnant leach solution ("PLS") derived from the leaching. No significant test work has yet been completed on the latter, since that test work is typically left until preliminary feasibility study test work (Tenova, 2013).

1.5.4.1 Beneficiation

The efficiency of beneficiation was tested by flotation tests that aimed to separate calcite, a largely sterile mineral that consumes most of the acid input for the leach process (and therefore increases estimated operating costs "opex"), from apatite, the principal mineral that contains phosphate and the bulk of the other elements of potential value. After over 50 tests conducted in 2012, a route was found that resulted in removing 29% of the calcite. The results of the test work indicated that improvements could be made on the efficiency of flotation process to extract more of the calcite (Tenova, 2013). Additional test work was not carried out due to a lack of funds. Flotation was not included in the process flow sheet developed for the PEA.

The second beneficiation method involved an acetic acid (vinegar) pre-leach to specifically consume calcite before the mineralized material was leached to extract the value commodities.

This test work proved positive and a scenario, "Option A" in the PEA, included beneficiation by acetic acid. "Option B" was the alternative process that treated run of mine mineralized material that had not been beneficiated.

1.5.4.2 Leaching

Multiple tests at for different labs resulted in acidic ferric sulphate leach being selected for the process flow sheet in the PEA (Tenova, 2013). As illustrated in Table 1-2, this method is effective for the extraction of uranium, phosphate, zinc and yttrium from the mineralized material. It is less effective in the extraction of vanadium and nickel, that are significant contributors to potential cash flow as discussed in Section 1.7.5. below.

Table 1-2. Average percentage extraction from mineralized rock from drill core from Berlin after acidic ferric sulphate leach.

Element	% Leach Extraction
U	98
V	73
Mo	51
P	100
Ni	60
Zn	98
Y	91
Nd	64

1.5.5 Preliminary Economic Assessment by U3O8 Corp.

U3O8 Corp. contracted Tenova to undertake a PEA on the Deposit. The PEA was done early in in the life of the Project due the metallurgical complexity implied by the diverse mix of commodities in the mineralized material. The goal was to determine whether the Project could be viable, and if this early study demonstrated economic viability, it would justify further study and extensive drilling towards a preliminary feasibility study.

1.6 Geological Setting and Mineralization

The Berlin Project lies on the eastern flank of the Cordillera Central where remnants of a mid-Mesozoic fluvio-marine sedimentary sequence overlie basement schists of the Cajamarca Complex. The sedimentary sequence that contains the mineralized unit at Berlin defines an upward-fining progression. This transgressive continental to marine sequence accumulated in a large sedimentary basin that extends from Colombia through Ecuador into Peru and the black shales constitute an important source bed for hydrocarbons in the region.

Mineralization in the Berlin Deposit is concentrated within a specific sedimentary sequence in the Abejorral Formation near the base of the Cretaceous. Five facies were established from drill core logging, and these are remarkably consistent throughout the Project.

The principal mineralized layer is Unit C changes in composition from a sandstone in the near-surface oxidized zone to a carbonate rock in the unoxidized zone at depth. Unit C averages 3.0m thick.

Unit C is a phosphatic carbonate; a sparse biomicrite in which several stacked beds have an upward-fining arrangement of brachiopod and mollusc shell fragments. This facies has a high carbon content that ranges from amorphous bitumen to material that shows an incipient graphitic crystal structure.

Unit D averages 4m thick and has gradational lower and upper contacts with Units C and E respectively. Unit D is a carbonaceous mudstone interlayered with fine sand or silt arranged in stacked, upward-fining units that range in thickness from 5cm to 40cm. The unit is largely clastic in nature, consisting of a mixture of fine- to very fine quartz and calcite grains with bioclasts, cemented by carbonate.

Unit E is a monotonous mudstone sequence that consists of stacked, upward-fining cycles a few decimetres thick that are interpreted to be distal Bouma (Bouma, 1962) facies. Well-preserved ammonite shells that occur throughout the sequence attest to its marine origin.

Mineralization in centred on Unit C, but extends slightly into the underlying Unit B and more extensively into the overlying Unit D. Elements that extend most persistently into the hanging wall include vanadium, nickel, molybdenum, zinc and silver.

Microscopic study of drill core samples shows that uranium occurs mainly as the mineral uraninite that has a close association with organic carbon. Most of the phosphate occurs as fine, crystalline fluorapatite ($Ca_5(PO_4)_3F$) masses in the sandstone, carbonate-bearing siltstone and carbonate rock. Most of the metals of potentially economic interest occur as phosphate minerals or are associated with fluorapatite, or occur as sulphides in the case of nickel, molybdenum and zinc.

The sedimentary sequence in the Project area has been folded into a doubly-plunging syncline that has a north-trending axis. The geometry of the fold is like a port-listing canoe; the western limb of the fold dips at a shallow angle to the east and the east limb is steeply-dipping to overturned. The eastern limb is cut, in some sectors, by the east-dipping San Diego Fault, which is a north-striking splay related to the regional Palestina Fault. In the resource area, the mineralized unit extends from surface outcrops to a maximum depth of 350m below surface.

The Samaná Batholith is a large intrusive complex (30km north-south by 8km east-west) that lies immediately west of Berlin. The complex has been dated at 119+/-10 million years (“Ma”) and consists mainly of diorite and gabbro. An alaskitic intrusive stock that lies near the Berlin deposit has been dated at 60-80Ma. Alaskitic dykes and sills intersected in drilling in the Project are assumed to form part of this intrusive phase that is similar in age to the 52-67Ma age obtained from uraninite, the principal uranium-bearing mineral, at Berlin (Caceres Bottia, 2012). The host sequence, in contrast, is significantly older, as Aptian–Albian based on its fossil assemblage (~100-120Ma).

1.7 Deposit Types

The Belin Deposit is a sediment-hosted stratiform, multi-commodity deposit that derived its mineral endowment from hydrothermal fluids from the adjacent alaskitic stocks mixing with hydrocarbon-rich fluids generated from the thermal maturation and over-maturation of organic matter in black mudstone the thermal aureole of the intrusive stocks. Uranium, molybdenum, REE and rhenium are considered to have derived from the alaskite directly while vanadium, nickel, zinc and silver are considered to have derived from the black mudstones.

1.8 Exploration

Field work in 2021 and to the Effective Date focused on the eastern and western flanks of the Deposit to determine more precisely where the host stratum has been removed by a west-verging thrust fault on the east flank of the syncline in which the mineralization is hosted. Work on the west flank focused on delineating where an alaskitic intrusive stock has removed the mineralized layer. This work is essential to the planning of further exploration and infill drilling required for resource estimation purposes.

1.9 Drilling

No further drilling has been undertaken on the Property since that on which the resource estimates were based by Coffey (2012) and Tenova (2013).

1.10 Sample Preparation, Analysis and Security

The Author considers the sampling procedure used for outcrop and drill core to conform with industry standards and confirms that it is adequate and appropriate for the style of mineralization present at Berlin. Sample security conforms to industry standards and is adequate. In addition to industry-standard analytical methods, additional analytical procedures were required to provide quality data on percentage-level phosphate and on REEs. In the Author’s opinion, the assay procedures are adequate for the style of mineralization that constitutes the Berlin Deposit.

1.11 Data Verification

Check samples taken from ¼ core by the Author from three intercepts yielded assay results that were comparable with the original reports assays. Hence, in the opinion of the Author, the check sample assays support the integrity of the original sampling and assay procedures and this finding is consistent with that of Coffey Mining (2012) in which more extensive duplicate and check sampling was done.

1.12 Mineral Processing and Metallurgical Test Work

1.12.1 Beneficiation

Sensor-based sorting is a technology that has been widely applied to various mineral deposits in the last decade, and this may have application to beneficiating mineralized material from the Berlin deposit. Further test work on flotation is also under consideration. The main aim of beneficiation work would be to reduce the calcite content of the mineralized material prior to leaching.

1.12.2 Leaching

While the acidic ferric sulphate leach is highly effective for uranium, phosphate, zinc and yttrium, it is less effective for vanadium, nickel, neodymium and molybdenum, which have significant contributions to the potential cash flow from the Project. Studies are underway to identify means of increasing the recovery of the latter group of metals as a means of increasing potential cash flow. Additional extractive test work is recommended for the Project as discussed in Section 18.

1.12.3 Recovery Methods

Most of the recent metallurgical work has focused on recovery methods. Membrane test work is in progress with initial results showing good recovery (>98.6%) of the value metals with phosphate recovery much lower at 63% to 70%. A synthetic pregnant leach solution (“PLS”) was tested in two scenarios: a single stage membrane system resulted in the value commodities being strongly concentrated into only 12% of the original volume of the PLS, while the two-stage membrane system resulted in the commodities being concentrated in 18% of the original PLS. This concentration of value commodities into a small volume of the PLS implies a reduction in the size of the downstream processing plant by between 82% and 88%; the flow rate would decrease from the 180 cubic metres per hour (“m^3/h”) as designed in the PEA (Tenova, 2013), to between 22 to 32m^3/h with associated capital cost (“capex”) and opex savings.

The next step is for membranes to be tested as the final component of a complete test that would include beneficiation, leaching and extraction of value commodities on mineralized material from core from drill holes from the Project. This all-encompassing test would be the precursor to a bulk process test that would take several tonnes of material from site through the whole process from crushing, grinding, beneficiation, leaching and extraction of the value commodities. The test work described in this paragraph is considered as a second phase that is contingent on the successful completion of the Phase 1 membrane test work and the additional beneficiation and leach tests described above and in Section 18.

1.13 Adjacent Properties

In 2012, U3O8 Corp. drilled 6,441m in 15 diamond drill holes along geological trend of the mineralized sedimentary unit to the north of the Property. The stratigraphy of the adjacent area, along with the width of the mineralized zone and the grade of mineralization was similar in these wide-spaced exploration drill holes, to those within the resource area. Since the annual concession fees have not been paid, those concessions are not in good standing and negotiations are underway with the Colombian authorities to cure that situation. Since these negotiations are on-going, and there is no guarantee of a successful outcome, work done on these concessions is relegated to “Adjacent Properties”.

1.14 Interpretation and Conclusions

The Property meets the criteria of a Tier 2 property in that:

- The Company owns the mineral concession outright.
- C$252,905 of Approved Expenditure has been made on the Property in the last three years, exceeding the required minimum of C$100,000 as stipulated in TSX Policy 1.1 (Table 1-3).
- This Technical Report recommends a Phase 1 work program of C$975,000 (Table 1-4), C$590,000 would constitute “Approved Expenditure”, that is compliant with the minimum requirement of C$200,000 stipulated in TSX Policy 1.1. A Phase 2 work program of C$980,000, focused on testing the entire process flow sheet on a sample of mineralized material of several tonnes, is contingent on successful completion of the recommended Phase 1 work.

Table 1-3. Expenditure undertaken on the Berlin Project in 2021 and to the Effective Date.

Expenditure on the Berlin Project		
Item	2021	2022 to the Effective Date
Remuneration	$69,759	$69,760
Contractors	$69,759	$69,760
Consultants	$0	$0
G&A in Colombia	$0	$0
Exploration:	$51,620	$0
Field work	$51,620	$0
Geochemistry	$0	$0
Geophysics	$0	$0
Drilling	$0	$0
Metallurgy & flowsheet optimization	$93,889	$46,610
Testing of beneficiation techniques	$0	$0
Optimization of leach process	$0	$8,000
Downstream processing - membrane test work - Phases 1 & 2	$93,889	$38,610
Environmental and local community engagement	$0	$60,786
Annual concession fees	$0	$0
Total	**$215,268**	**$177,156**
Total Approved Expenditure	**$145,509**	**$107,396**

Check sampling by the Author returned assays that are consistent with the mineralized intervals as recorded in the database. In fact, the check assays, particularly assay method ICM90A, yielded generally higher grades for a large suite of elements when compared with the assays in the database. Therefore, the check assays corroborate that the sample preparation and analytical procedure used on the Project were appropriate to the style of mineralization and are potentially somewhat conservative. The check assays also support the integrity of the recorded data in the database. The check sampling by the Author, therefore, support the adequacy of the sampling method and adequacy of the database reported by Coffey Mining (2012) and Tenova (2013).

The resource established for the Berlin Deposit in 2012 (Coffey Mining) and 2013 (Tenova) was based on 82 holes for 18,522m. 93% of the resource is in the Indicated category, with the remainder in the Inferred category. However, given the consistency of grade, contained commodities and predictable stratigraphic level at which the mineralization is located, it is likely that the criteria for resource classification may be relaxed from that applied in the current resource estimate when infill drilling is undertaken.

The potential value-add from improvements to the process flow sheet far outweigh the importance of upgrading the resource to include the Measured and Indicated categories at this stage of the Project’s development.

Table 1-4. Recommended budget for 12 months from the Effective Date.

Budget for the Berlin Project		
Item		**C$**
Phase 1		
Remuneration		$270,000
Contractors		$120,000
Consultants		$150,000
G&A in Colombia		$50,000
Exploration:		$60,000
Field work		$50,000
Geochemistry		$10,000
Geophysics		$0
Drilling		$0
Metallurgy:		$500,000
Step 2: membrane testing		$90,000
Step 3:		
	Testing of beneficiation techniques	$50,000
	Optimization of leach process	$110,000
	Downstream processing of the PLS	$100,000
	Testing of recovery methods	$150,000
Environmental and local community engagement		$30,000
Annual concession fees		$65,000
Phase 1: Total		**$975,000**
Phase 1: Approved Expenditure		**$590,000**
Phase 2		
Testing of acetic acid manufacture		$50,000
Further testing of recovery methods		$180,000
Step 4: Processing of a bulk sample		$750,000
Phase 2: Total		**$980,000**
Total: Phases 1 & 2		**$1,955,000**

The PEA (Tenova, 2013) estimated an IRR of 19% on the Project in Option B in which the mineralized material was not beneficiated. The key areas in which the economics of the Project can be improved are:

- Reducing acid consumption via beneficiation to reject low-value, acid-consuming calcite.
- Improving the efficiency of leaching a broader spectrum of value commodities including nickel, vanadium, molybdenum and neodymium to the PLS.
- Increasing the potential revenue stream through an increase in the recovery of a broader suite of REEs and potentially producing commodities that are specifically sought-after by the market such as ferro-phosphate for the LFP battery. The existing PEA only includes estimated revenue from yttrium and neodymium of the REE suite.

Specific test work that should be conducted towards enhancing the process flow sheet are:

- Beneficiation: sensor-based sorting and/or flotation as well as finding means of reducing the cost of acetic acid through local production and procurement of sugar cane, for example.
- Optimizing the leach technique to extract the value commodities more efficiently.
- Optimizing recovery methods through fuller testing of the identified membrane systems and proving the efficiency of extraction techniques such as ion exchange (“IX”), solvent extraction (“SX”), direct precipitation and evaporation.

The membrane test work conducted to date suggests that the PLS could be separated into a low flow-rate stream containing the value metals in concentrated form, and a higher volume stream containing principally phosphoric acid. This early separation of the PLS reduces the hydraulic capacity of the metals recovery circuits and potentially eliminates using the more costly solvent extraction (“SX’) process to recover phosphoric acid as contemplated in the PEA (Tenova, 2013).

Contingent on successful completion of Phase 1 metallurgical test work, Phase 2 would test the efficiency of an improved flow sheet and would provide detailed cost estimates that are essential to a robust, more advanced economic study. Contingent on successful completion of the processing of a bulk sample, an updated PEA could confirm improved economics without having to incur the cost of additional drilling to upgrade the resource to the Measured and Indicated categories required for pre-feasibility study.

1.15 Recommendations

Advancement of the Berlin Project is budgeted at C$975,000, for Phase 1 work. C$590,000 of this budget qualifies as Approved Expenditures as defined in TSX Policy 1.1. The main components of the Phase 1 work program are:

- Completion of “Step 2” test work designed to confirm the efficiency of the selected membrane systems on a larger scale to provide estimates on opex and capex to provide the justification to continue with additional test work to improve efficiencies beyond the process flow sheet designed in the PEA (Tenova, 2013). Completion of Step 2 is budgeted at C$90,000.
- Step 3 test work is a “dry-run” of the bulk sample test envisaged as Step 4 in Phase 2 work. Step 3 would provide data appropriate for PEA-level opex and capex estimates. Work would have the following objectives:
    - Improve the efficiency of beneficiation, including sensor-based methods and additional flotation test work that builds on the prior partial success of flotation on mineralized material from Berlin. The estimated budget for the beneficiation test work is C$50,000.
    - Improve the efficiency of extraction of value metals such as nickel, vanadium, molybdenum and neodymium into the PLS and on reducing acid consumption. The budget for the leach test work is C$110,000.
    - Confirm the efficiency of the selected membrane system on the PLS derived from the optimized leach process used on mineralized material from the Deposit. The budget is C$100,000 for this work.

  - Optimize the downstream processing of the PLS to recover the most valuable suite of commodities to maximize the economics of the Project. For example, determine the technical and economic feasibility of producing ferro-phosphate for the battery industry. The budget is C$150,000 for this work.

- Community engagement should be initiated within the Project area and the associated area of influence. This work is budgeted at C$30,000.
- The annual concession fee, estimated at C$65,000 must be paid in order to keep the concessions in good standing.

Phase 2 test work, which is contingent on completion of Phase 1, and upon positive results from Phase 1, should test the complete metallurgical process from crushing of the mineralized material, through beneficiation, leaching of the value commodities from the mineralized material into the PLS and subsequent extraction of the value commodities, from a bulk sample of several tonnes. In parallel with the processing of the bulk sample, test work should be undertaken on the feasibility of local acetic acid manufacture with the aim of reducing the cost of this reagent (budget C$50,000). Additional work is likely to be required to refine recovery methods to the economically optimal suite of products (Budget C$180,000). Hence, the total budget for Phase 2 is C$980,000.

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2 INTRODUCTION

2.1 Scope of Work

This Technical Report is written as an updated review of the Berlin Deposit (“The Deposit” or “The Project”) in Caldas Province, Colombia for U3O8 Corp. (“U3O8 Corp.” or “the Company”), currently listed on the NEX platform of the TSX Venture Exchange (“TSXV”), to bring the Company into compliance with TSXV listing requirements.

This Report is a supplement to two key prior reports:

A resource estimate for a broad suite of commodities contained within the Deposit including uranium, phosphate, nickel, vanadium, the rare earth elements (“REEs”) neodymium and yttrium, as well as rhenium, zinc, molybdenum and silver by Coffey Mining, the effective date of which is March 2, 2012 (Coffey Mining, 2012).

A subsequent preliminary economic assessment (“PEA”) undertaken by Tenova Engineering Pty Ltd), (“Tenova”), the effective date of which is January 18, 2013 (Tenova, 2013). The PEA modelled two alternative flowsheets and generated basic economic information for each.

The protracted bear market in uranium in the wake of the Fukushima event in March 2011, combined with the high capex modelled in the PEA, made it difficult to raise funds to advance the Deposit to resource expansion and pre-feasibility study. The Company was unable to meet ongoing listing requirements for the TSX and OTCQB and was demoted to the NEX platform of the TSXV in February 2020.

This technical report (“Technical Report” or “Report”) incorporates initial results of metallurgical test work undertaken subsequent to the completion of the PEA and that is ongoing at the Effective Date. The test work is focused on the potential to use membrane technology to separate various commodities in the pregnant leach solution (“PLS”) with the objective of lowering the estimated opex and capex.

2.2 Qualifications and Experience

This Technical Report was written by Mr. Jean Paul Pallier (the “Author”). Mr Pallier is a Qualified Person (“QP”) as defined by National Instrument 43-101, Standards of Disclosure for Mineral Projects (“NI 43-101”) of the Canadian Securities Administrators through his EurGeol designation by the European Federation of Geologists. Mr. Pallier has 27 years of experience in the resource industry and has extensive experience in uranium exploration.

Mr. Pallier is an experienced exploration geologists who has worked in high-rainfall environments similar to the Berlin Project in Guyana for BRGM (1995-1996), French Guyana for ASARCO (1996-2001), IAMGOLD (2002-2004) and Golden Star Resources (2007-2008). He conducted uranium exploration in Mongolia for Emeelt Mines in 2007 and for Aurania Resources Ltd. In Switzerland between 2009 and 2016.

The Author visited the Project on January 19 and 20, 2022.

2.3 Conventions and Standards

All units in this report are according to the International System of Units. Currency values in Canadian Dollars are denoted by “C$” and US Dollars by “US$”. Acronyms and abbreviations used in this report are commonly used in the minerals industry and are listed with brief explanations in Appendix A.

2.4 Independence

In accordance with Section 1.5 of National Instrument 43-101, Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators, the Author is independent of U3O8 Corp., and is not an insider, associate or affiliate of U3O8 Corp. As per Exchange Policy requirement (Appendix 3F), the Author declares that he has had no prior involvement with the Berlin Project.

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3 RELIANCE ON OTHER EXPERTS

The Author is relying on the opinion on the title and legal status of the exploration concession that contains the Berlin Deposit as well as its standing in terms of environmental legislation provided by Mr. Hernando A. Escobar Isaza, independent Colombian counsel to U3O8 Corp. The title opinion by Mr. Escobar is dated April 25, 2022.

Mr. Escobar is based in Medellin, Colombia and is a partner with Escobar, Lorenzoni y Asociados, a law firm in good legal standing in Colombia and with extensive experience in the mineral resource sector.

Mr. Escobar is independent of U3O8 Corp.

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4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location and Size of the Mineral Property

The Berlin Project area is located in central Colombia in the province of Caldas approximately 80km northeast of the provincial capital, Manizales, and approximately 150km northeast of the national capital, Bogotá (Figure 4-1). Berlin lies 225km by road from Manizales and 245km from Bogota.

April 20, 2022

Figure 4-1. Map showing general location of the Berlin Project in Caldas Province, Central Colombia

The mineral concession (reference number 664-17) on which the Berlin Deposit is located is approximately 7,305Ha in extent in the municipality of Samana, Caldas Province. The location of the resource defined by Coffey Mining (2012) is shown relative to the concession boundaries in Figure 4-2.

Details of the Gauss-Kruger and UTM coordinates of the corner points of the concession on which the mineral resource at Berlin lies, are listed in Table 4-1. UTM coordinates are in Zone 18 North and are in units of metres.

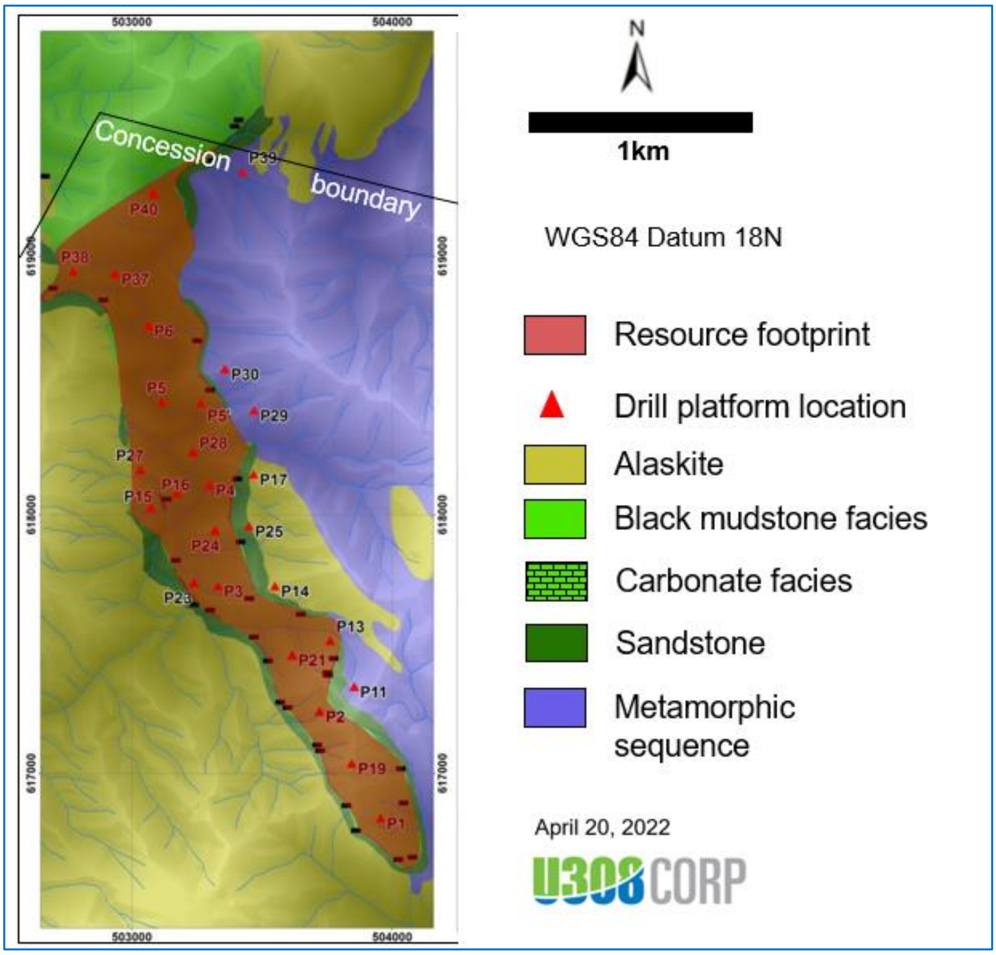

Figure 4-2. Location of the mineral resource that constitutes the Berlin Deposit relative to the northern limit of the Property.

4.2 Nature of Mineral Property, Ownership and Tenure

4.2.1 Property Ownership

The laws relating to property ownership in Colombia are the same for foreign entities as they are for Colombian entities. Foreign companies are required to constitute a branch, subsidiary or affiliate in Colombia before they may be granted a Concession Contract. In Colombia, exploration and exploitation of mineral resources are formalized by the execution of a concession contract (the “Concession Contract”) with the national mining authority pursuant to the mining legislation Law N°685/2001.

A Concession Contract for the Berlin Property was executed by Energentia Ltd. with the National Mining Authority on October 23, 2007 and duly registered on December 7, 2007. Energentia Ltd. was a British Virgin Islands (“BVI”) – registered company 100% owned by Gaia Energy Inc. (“Gaia Ontario”), an Ontario-registered subsidiary of Mega Uranium Ltd. U3O8 Corp. purchased Gaia Ontario from Mega Uranium Ltd. on February 16, 2010.

Table 4-1. Corner points of the mineral properties that constitute the Berlin Project (Gauss-Kruger and UTM, Zone 18 North Coordinates).

Concession	Corner Point	Gauss- Kruger		UTM	
		Northing	Easting	Northing	Easting
664-17	1	1,115,310	907,212	623,540	509,035
	2	1,115,310	904,000	623,535	505,835
	3	1,115,150	904,000	623,375	505,835
	4	1,115,150	902,060	623,372	503,886
	5	1,115,000	902,060	623,223	503,886
	6	1,115,000	902,070	623,223	503,896
	7	1,113,000	902,070	621,224	503,899
	8	1,113,000	902,000	621,223	503,830
	9	1,111,460	902,000	619,684	503,832
	10	1,111,920	900,210	620,141	502,042
	11	1,110,000	899,180	618,221	501,016
	12	1,110,000	899,230	618,221	501,066
	13	1,107,000	897,830	615,220	499,671
	14	1,107,000	897,000	615,219	498,842
	15	1,110,000	897,000	618,217	498,837
	16	1,115,000	897,000	623,215	498,829
	17	1,115,000	899,110	623,218	500,938
	18	1,115,310	899,110	623,528	500,937
	19	1,115,310	895,513	623,522	497,343
	20	1,106,763	895,513	614,980	497,356
	21	1,106,763	907,212	614,998	509,049

On December 9, 2010 the name of Energentia Ltd. was changed to Gaia Energy Investments Ltd. (“Gaia BVI”). The name of the Colombian branch was also changed to Gaia Energy Investments Ltd. Sucursal Colombia (“Gaia Colombia”) (Figure 4-3).

4.2.2 Property Tenure

The National Mining Agency (“ANM”) is Colombia’s mining authority (“Mining Authority”). It is a decentralized national entity, attached to the Ministry of Mines, that is also responsible for managing royalties and maintaining the national registry of concession contracts, and for granting and executing concession contracts.

Concession Contract 664-17, on which the Berlin Deposit is located, was executed and registered under Law N°685/2001. The Berlin Concession Contract was granted for a 30-year term that would expire in 2037, whereupon an application could be made for an additional 30-year term.

The exploration phase is granted for an initial three-year term, that can be extended for two years to a maximum of four times (for a total exploration period of 11 years). The construction phase is granted for an initial three-year period, extendable for a one-year term. The exploitation phase is granted for the remaining time such that the overall concession period does not exceed 30 years i.e. the initial exploitation phase is 30 years minus the exploration and construction periods.

Since the exploration term of the concession expired in 2018, the Company has initiated a procedure whereby the exploration phase of the concession would be reset. Under the terms of the cure, the total term of the concession would not be reset i.e. it would still expire in 2037, whereupon a 30-year extension can be applied for.

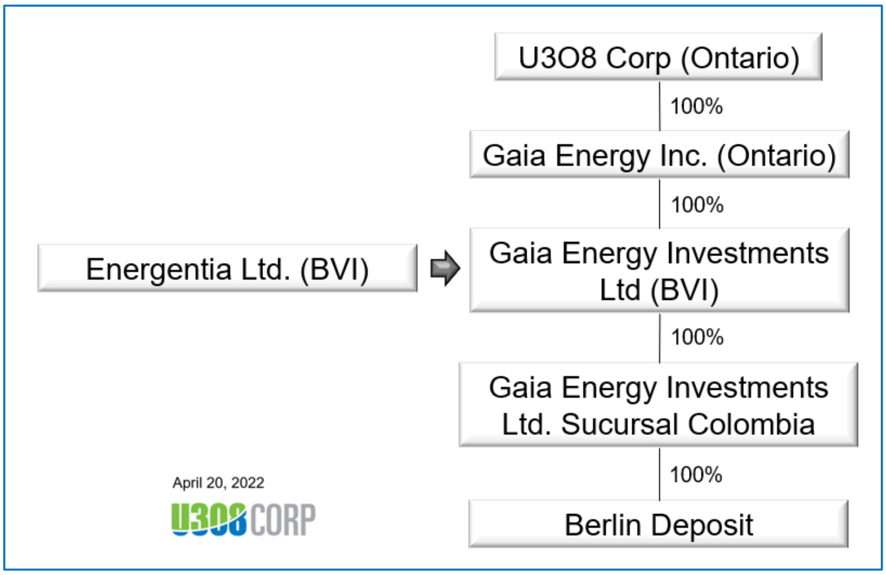

Figure 4-3. Corporate structure through which the Berlin Project is held.

4.2.3 Nature of the Mineral Property

Concession Contracts for exploration convey the right to explore the defined areas for minerals. Surface rights are separate from rights conferred by the Concession Contract. The Concession Contract covering the Berlin Deposit does not imply any surface rights – acquisition of surface rights must be negotiated directly with the landowners. The Company has not yet negotiated surface rights; that would be held over until completion of a pre-feasibility or feasibility study when more detailed work would have been done to define the location and characteristics of the required infrastructure.

The rights of the Concession Contract can be assigned totally or partially to another party, subject to authorization by the Mining Authority.

4.2.4 Requirements to Maintain the Concession Contract in Good Standing

Concession Fees

Annual concession fees during the exploration and construction phases are required to be paid to the State to maintain the Concession Contract in good standing. The approximate cost of maintaining the Berlin Property is US$65,000 per year.

Environmental Mining Insurance

Within 10 days following the execution of a concession contract, an environmental mining insurance policy must be obtained by the concession-holder as a guarantee against non-compliance with mining and environmental obligations. Failure to meet these obligations may result in the levying of fines and the unilateral termination of the agreement by the Mining Authority. The insured value is calculated as follows for the different stages of a concession contract:

- Exploration – 5% of annual estimated work expenditures.
- Construction – 5% of the annual investment towards mine construction.
- Exploitation – 10% of the result of multiplying the estimated annual production by the price of the mineral being extracted, as determined by the Government.

The insurance policy must be in full force and effect for three years beyond the life of the concession contract and is renewed annually as part of the fulfilment of obligations to maintain the concession contract in good standing.

Budget and Work Program

At the time an application is made, and when an extension to the exploration phase is granted, a budget and work program must be presented to the Mining Authorities.

Reporting

An annual report of activities on each Concession Contract must be submitted to the Mining Authority.

Compliance with Environmental Standards

Exploration is required to be carried out to standards of the mining and environmental authorities in Colombia. The provincial environmental agency, Corpocaldas, monitors environmental compliance and issues water permits as well as permits for trenching and drilling.

4.3 Material Agreements and Encumbrances

There are no back-in rights or other encumbrances on the Concession Contract that constitutes the Berlin Project.

4.4 Royalties and Colombian Tax Regime

4.4.1 Royalties

The Colombian Government requires an NSR royalty that varies according to commodity as listed in Table 4-2.

Table 4-2. List of NSR on the mining of various commodities

Commodity	NSR (%)
Uranium	10
Vanadium, phosphorus, molybdenum, yttrium & rhenium	5
Gold & silver	4
Nickel	12
Construction Materials (incl. gypsum)	1

4.5 Environmental Liabilities

Ground water started to flow from one of the three bore holes drilled at platforms 4 and 6, and Corpocaldas required that the holes drilled from those platforms be capped. Capping is scheduled for completion in August, 2022.

No further environmental liabilities on the Berlin Project are known to the Author at the Effective Date. There are no other known significant factors and risks that may affect access, title, or the right or ability to perform work on the Berlin Project.

4.6 Permits Required to Conduct the Proposed Work

An environmental license is required for the exploration stage. However, all work must be done in accordance with mining and environmental standards issued by the Ministries of Environment and of Mines. Corpocaldas then oversees the fulfillment of the environmental regulations on the Project. Permits are required to fell trees for access, construction of drilling platforms, and for access to water sources.

Permitting typically takes two to six months to process while the other drill-related permits typically take 2-3 months. Water from one permitted site can be used for various drill platforms in the vicinity. These permits will be applied for when the location of the drill platforms has been decided. Drilling is not included in the recommended work program.

An Environmental Impact Study must be completed in order to obtain an environmental licence from Corpocaldas before mine construction may commence.

4.7 Known Significant Factors and Risks

The main risk to the Property is the inability of the Company to meet its annual obligations going forward. Failure to meet the obligations may result in the State rescinding the Concession Contract.

Social acceptance of the project by neighbouring communities is key to the success of a future mine, and this aspect of the Project needs to be carefully managed on a go-forward basis. Despite the hiatus in exploration activity, in the Author's opinion, local community support for the Project is strong.

4.8 Other Factors Related to the Mineral Property

No other material risk factors are known to the Author at the Effective Date.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Berlin Project can be accessed by road from Bogotá, Manizales, Pereira, Medellin, or Ibague, all of which have commercial airports. The distance to the municipality of La Dorada, a port on the Magdalena River, is 170km from Bogotá and 180km from Ibague. From La Dorada, a secondary unpaved road leads 60km westwards to Berlin, passing through the municipality of Norcasia (Figure 5-1).

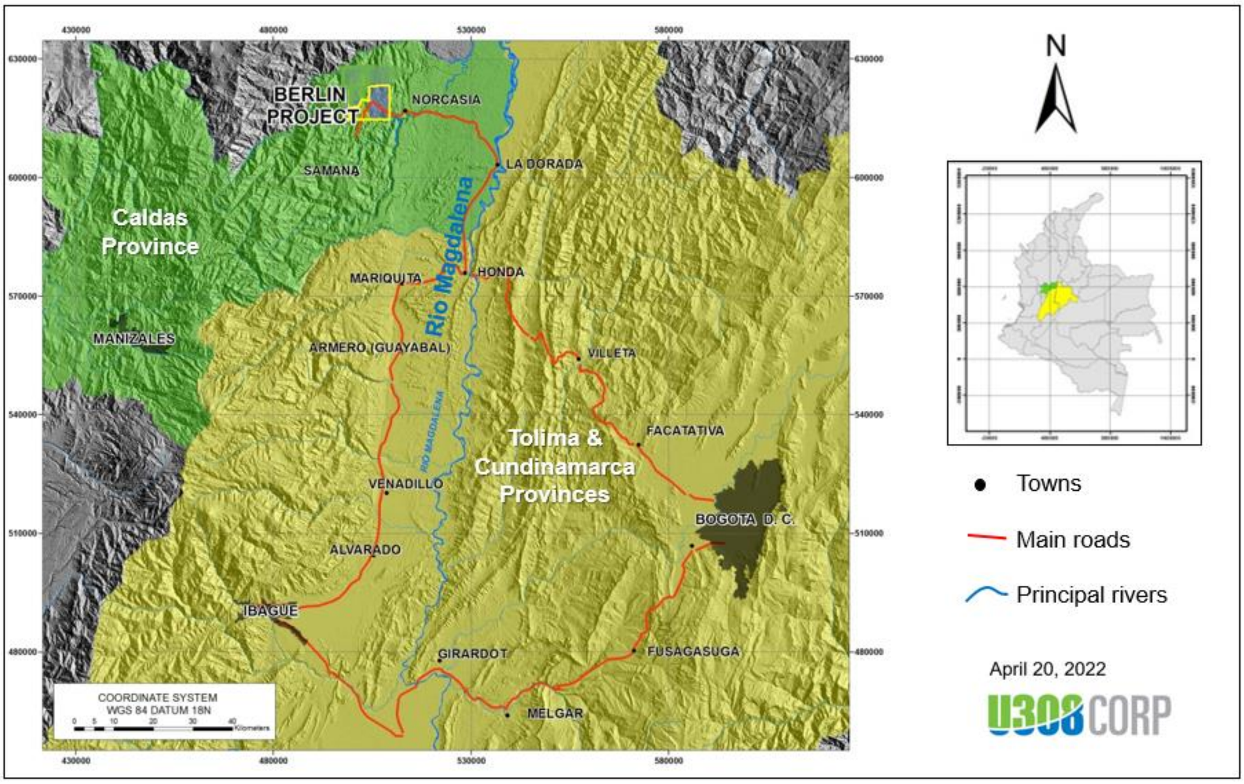

Figure 5-1. Map showing the general location of the Berlin concession area in Caldas Province relative to local infrastructure.

5.2 Topography, Elevation and Vegetation

5.2.1 Vegetation

The Berlin Deposit lies in a mountainous area in which remnants of the original rainforest are confined to the higher topographic areas and steep river and stream valleys. Extensive clearing has been undertaken for agriculture and pasture (Figure 5-2).

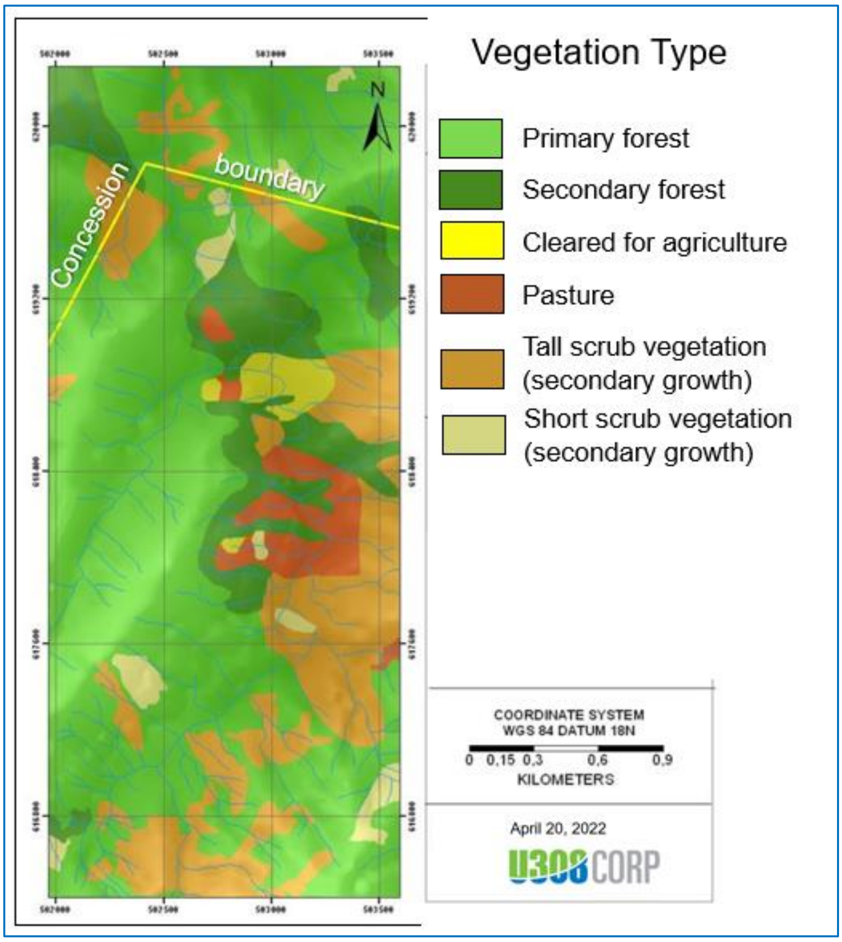

Figure 5-2. Map showing vegetation type in the Berlin Project area.

5.2.2 Physiography

The Berlin Deposit lies in the eastern foothills of the Colombian Central Range that is characterized by steep topography between 850m and 1,300m amsl. The foot of the mountain range lies approximately 10km east of Berlin where there is an abrupt change to the plain of the Magdalena River with savannah-style vegetation (Figure 5-3).

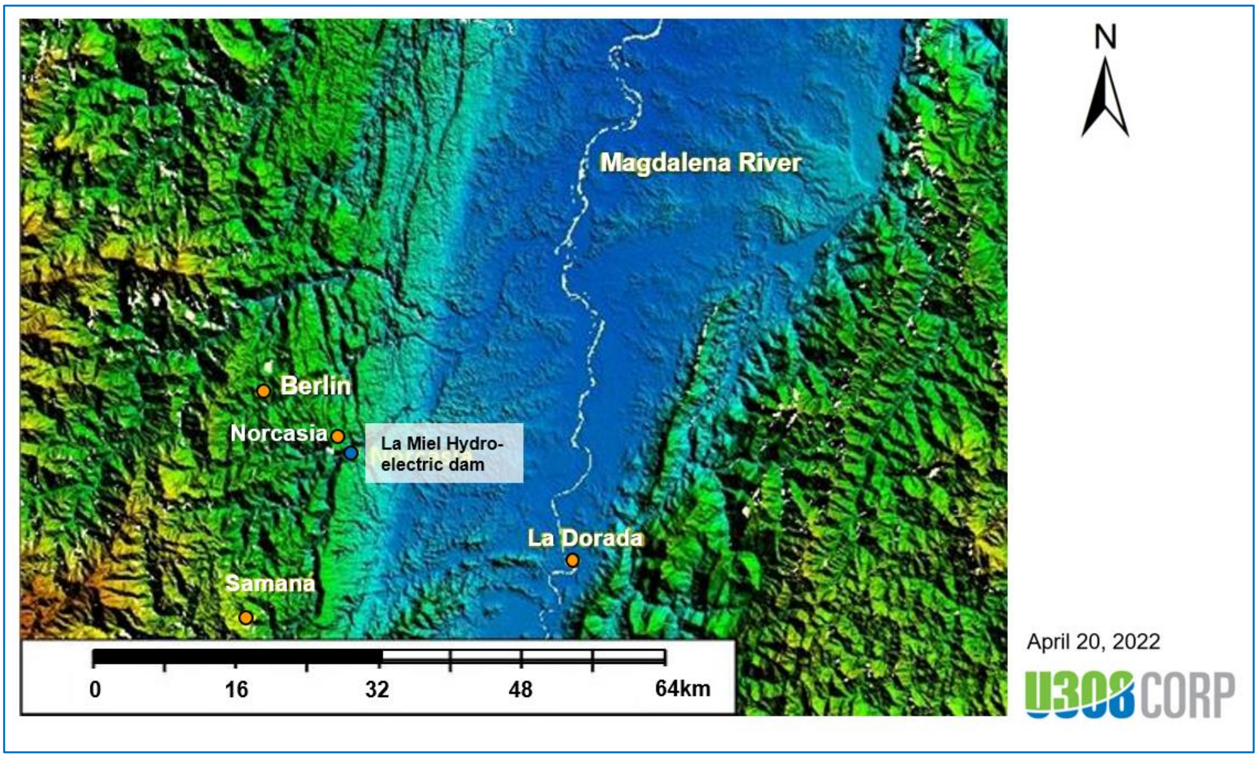

Figure 5-3. SRTM imagery showing the topographic relief in the area of the Berlin Project.

5.3 Infrastructure, Population and Local Resources

5.3.1 Population and Infrastructure

Norcasia, 10km from Berlin, is the closest urban area to the Project, with a population of approximately 7,000 offering shops, a hospital and public transportation.

The main socio-economic activity in the Project area is small-scale and subsistence agriculture and dairy. There is no mining in the immediate area, so trained personnel would have to be hired elsewhere in Colombia, which has a deep source of experienced talent. Rudimentary service providers in the area would need training to provide services required to required standards.

The topography of the Berlin Project area is moderate with rolling hills and there are multiple suitable locations for a mine portal and there is sufficient flat land to accommodate a processing plant and associated infrastructure.

The high rainfall, and the fact that the Project lies in the seismically active Andes, is a concern for the stability of tailings facilities. The Option A mineral processing route would have all of the tailings pumped back underground as paste backfill. If Option B, which was shown to be slightly more economically robust in the PEA (Tenova, 2013), is selected after the modifications to the process flow sheet that are currently being tested, the risk of failure of a tailings facility close to the proposed mine site is considered to be high. Therefore, the PEA contemplated a tailings facility being located in the topographically flat area in the rain shadow of the cordillera. There is ample flat land in a dry area that lies to the east of the proposed processing plant site (Figure

5-4). This is an area of limited agricultural value and has the benefit of being underlain by granite what forms a stable footing. The PEA planned for the tailings to gravitate to the storage facility through a 14km long pipeline.

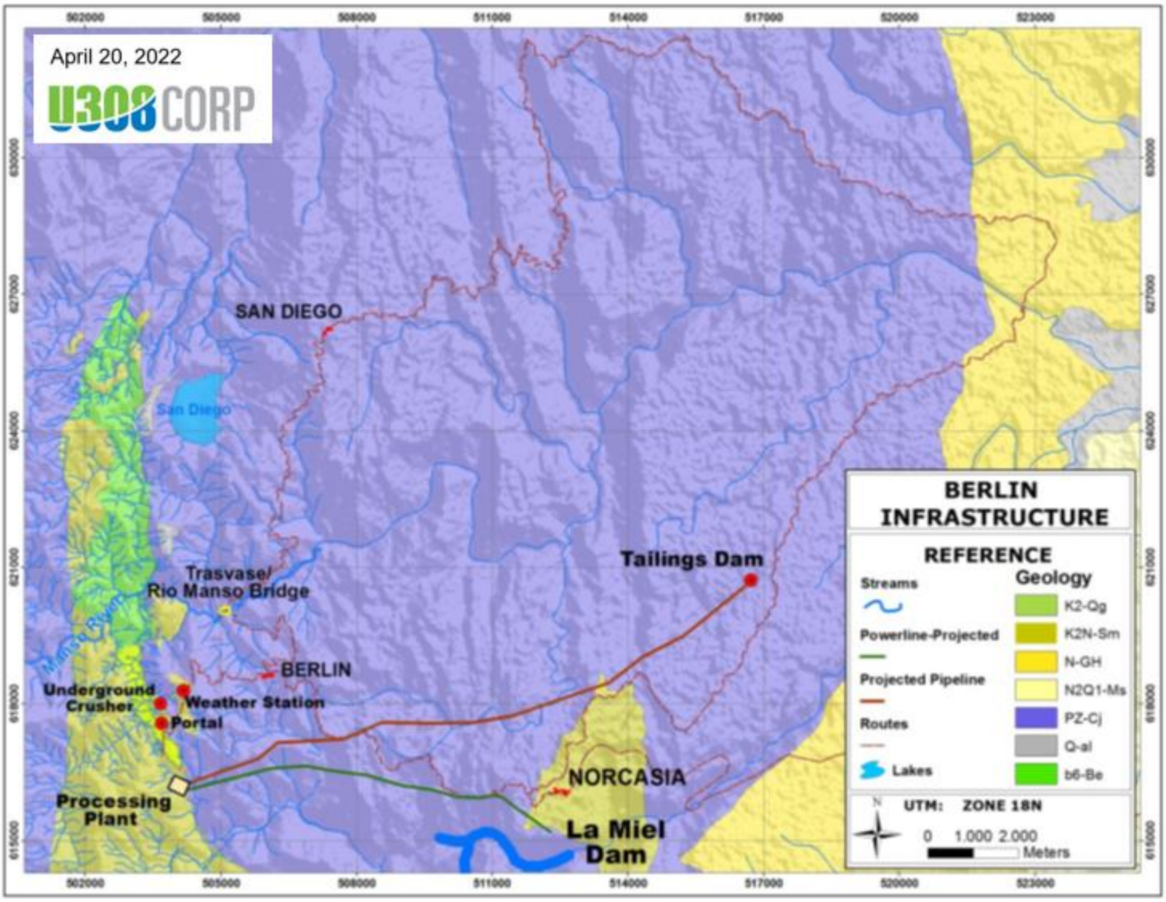

Figure 5-4. Proposed location of principal infrastructure for the Belin Project (Tenova, 2013).

The Magdalena River is navigable by barge from the town of La Dorada, 65km southeast of the Project area, to the port of Bocas de Ceniza - Barranquilla on the Caribbean coast (Figure 5-5). In addition, the railway line that links the town of La Dorada to the port town of Santa Marta on the Caribbean coast was reopened in 2018. The railway linking La Dorada southeastwards to Bogota, and southwestwards to the port of Buenaventura on the Pacific coast, form part of the Master Railway Plan that was announced in November 2020, which aims to have the whole of Colombia’s railway system in operation by 2030.

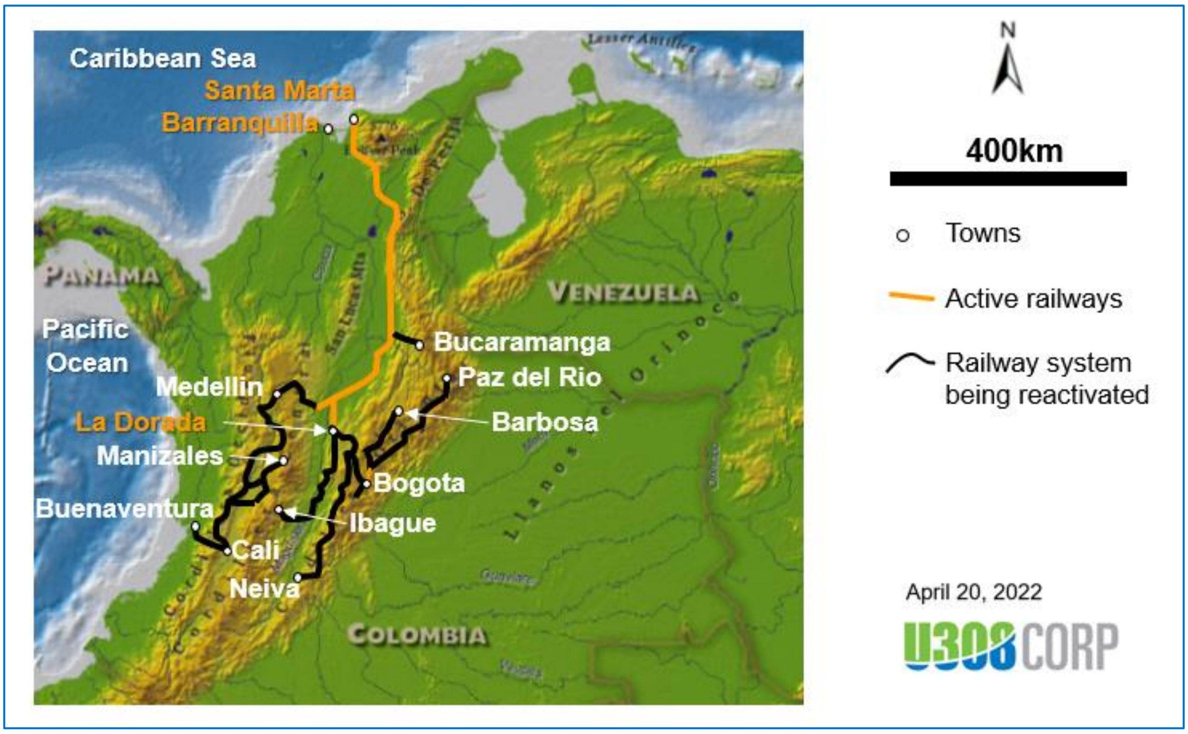

Figure 5-5. The Berlin Project in relation to Colombia's railway system
(*https://theglobalamericans.org/2021/12/colombia-is-finally-getting-on-the-trains-train/***)**

5.3.2 Water Supply

High rainfall and a rich tributary system guarantee high volumes of quality water. The river system has been dammed to provide hydropower at La Miel, a hydroelectric dam located 1.5km south of Norcasia.

5.3.3 Power Supply

The energy consumed in the Berlin Project comes from the sub-station of Norcasia, which is distributed by the CHEC (Caldas Hydroelectric). The 395MW La Miel hydroelectric dam is located approximately 12km from the central part of the Project area.

5.4 Climate and Operating Season

The average temperature in the area of the Berlin Deposit is between 21° and 25°C, with the daytime temperature varying between 26°C and 29°C throughout the year (Figure 5-6), with average annual rainfall of 2,900 millimetres ("mm") per year (https://worldweatheronline.com). There are two peak rainfall periods: February-May and October-December (Figure 5-7). These conditions allow for year-round operations.

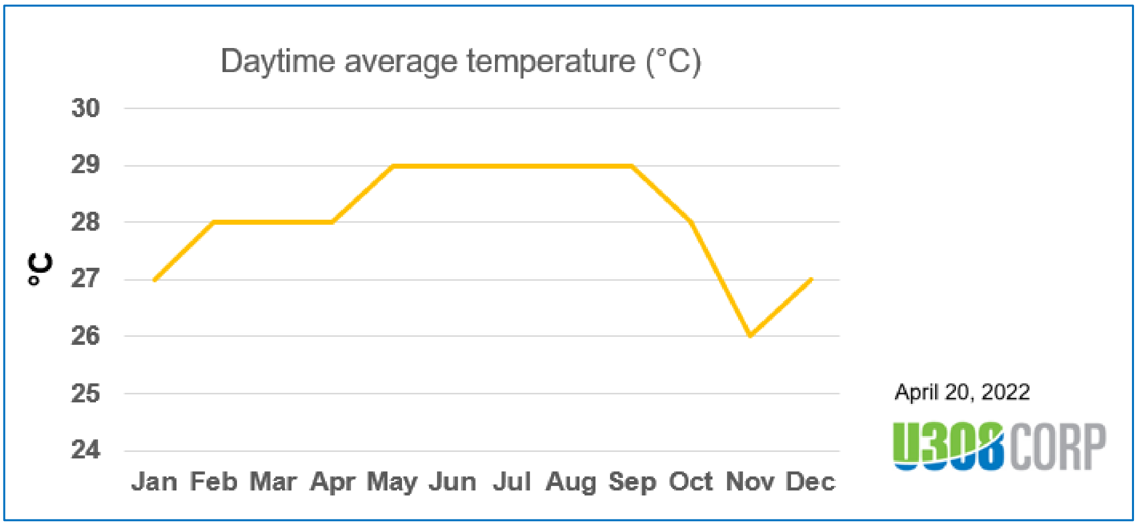

Figure 5-6. Monthly average daytime temperature at Norcasia (degrees Celsius).
https://worldweatheronline.com

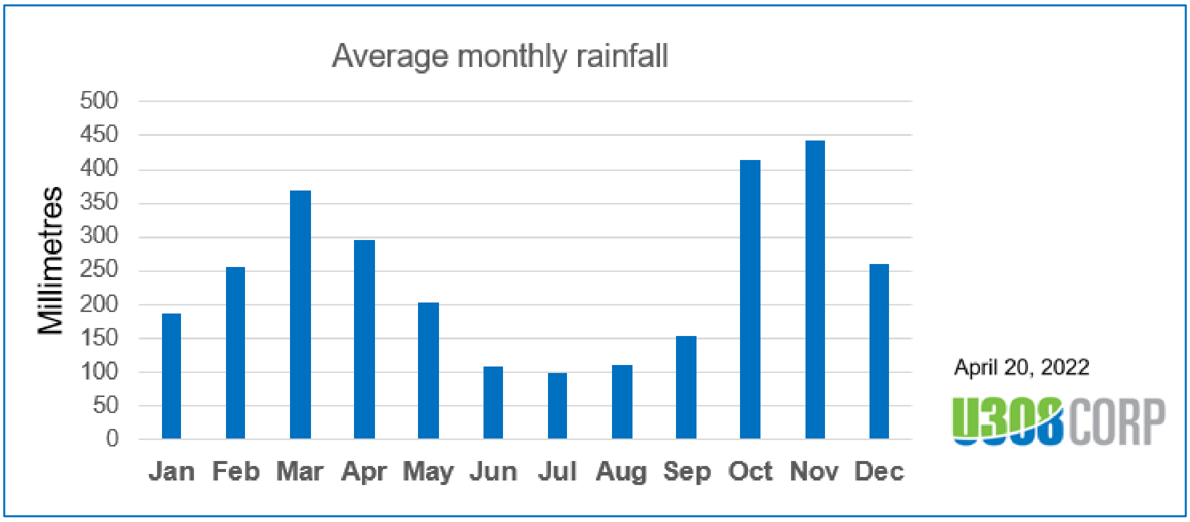

Figure 5-7. Monthly average rainfall at Norcasia (millimetres).
https://worldweatheronline.com

6 HISTORY

6.1 Prior Ownership

Minatome, a French exploration company, which has now been incorporated into Orano, undertook exploration on mineral concessions that covered the Berlin Deposit between 1979 and 1981. Its work involved basic geological investigation followed by exploration drilling, initial metallurgical test work. An estimation of a uranium resource was reported by Munos (1983). The estimate is not compliant with National Instrument 43-101 (Standards of Disclosure for Mineral Projects), and therefore, should not be construed as a current mineral resource. This non-compliant estimate should not be relied upon and is included for historical context of the Project. Minatome is reported to have withdrawn from the Berlin area when the company was nationalized by the French government in 1981, which coincided with a slump in uranium prices.

After Minatome's withdrawal from the project, the concessions reverted to the State. The United Nations Development Program ("UNDP") reviewed the technical work undertaken on the Project in 1982 and focused on the potential to recover uranium, molybdenum, vanadium, and phosphate.

Energentia Resources Inc. ("Energentia"), formerly KPS Ventures Ltd., entered into an agreement with Sociedad Kedahda SA, a subsidiary of AngloGold Ashanti, to acquire the 664-17 Concession Contract in 2007. Mega Uranium Ltd. ("Mega") purchased Energentia on May 1, 2008 and U3O8 Corp. then purchased Mega Uranium's South American assets in a transaction that closed on April 10, 2010. Among other assets, U3O8 Corp. purchased Energentia as a wholly owned subsidiary.

6.2 Historical Exploration

Uranium was identified in phosphatic strata in a regional radiometric prospecting program undertaken by the Colombian Instituto de Asuntos Nucleares ("IAN") between 1977 and 1983. After Minatome obtained permission from IAN to explore the Berlin Project area, it identified a sedimentary unit near the base of the Cretaceous sequence as having significant uranium grade. Rock-chip sampling resulted in the identification of highly anomalous uranium values over the entire strike length of the synform in the Cretaceous sequence in the Berlin area (Coffey Mining, 2012).

Minatome's exploration concentrated on the southern 5km of the 10.5km long syncline. The consistency of uranium grades along strike led Minatome to excavate 20 trenches and three adits, the latter with the objective of confirming mineralization extended to fresh exposures beneath the weathered rock. The location of the adits and trenches, and a summary of results, is provided in Coffey Mining, 2012.

Minatome then drilled 11 bore holes from five widely spaced drill pads for a total of 2,136m in 1980. Nine of these drill holes are reported to have intersected anomalous uranium values. IAN is reported to have drilled six bore holes in the Berlin Project area in 1982 and 1983 and three of these holes are reported to have reached the target horizon and to have intersected grades similar to those reported by Minatome over similar true widths (SRK, 2006).

6.3 Exploration by U3O8 Corp.

6.3.1 Responsibility for Exploration

The prior technical reports (Coffey Mining, 2012 and Tenova, 2013) describe the exploration that has been undertaken on the Property by U3O8 Corp. through its wholly owned subsidiary Gaia Colombia. The exploration work was carried out by employees and consultants to Gaia Colombia.

6.3.2 Approach

Due to the stratiform nature of the mineralization at Berlin, the principal objective was to define the extent and consistency of the known mineralized sedimentary layer through trenching and drilling. Exploration by U3O8 Corp. commenced in April 2010.

6.3.3 Trenching

Mineralization was traced along trend by geological mapping augmented by detection of radioactivity measured with hand-held GR 135 spectrometers. Twenty-nine trenches were excavated perpendicular to the strike of the mineralized unit within the Berlin Project (Figure 6-1).

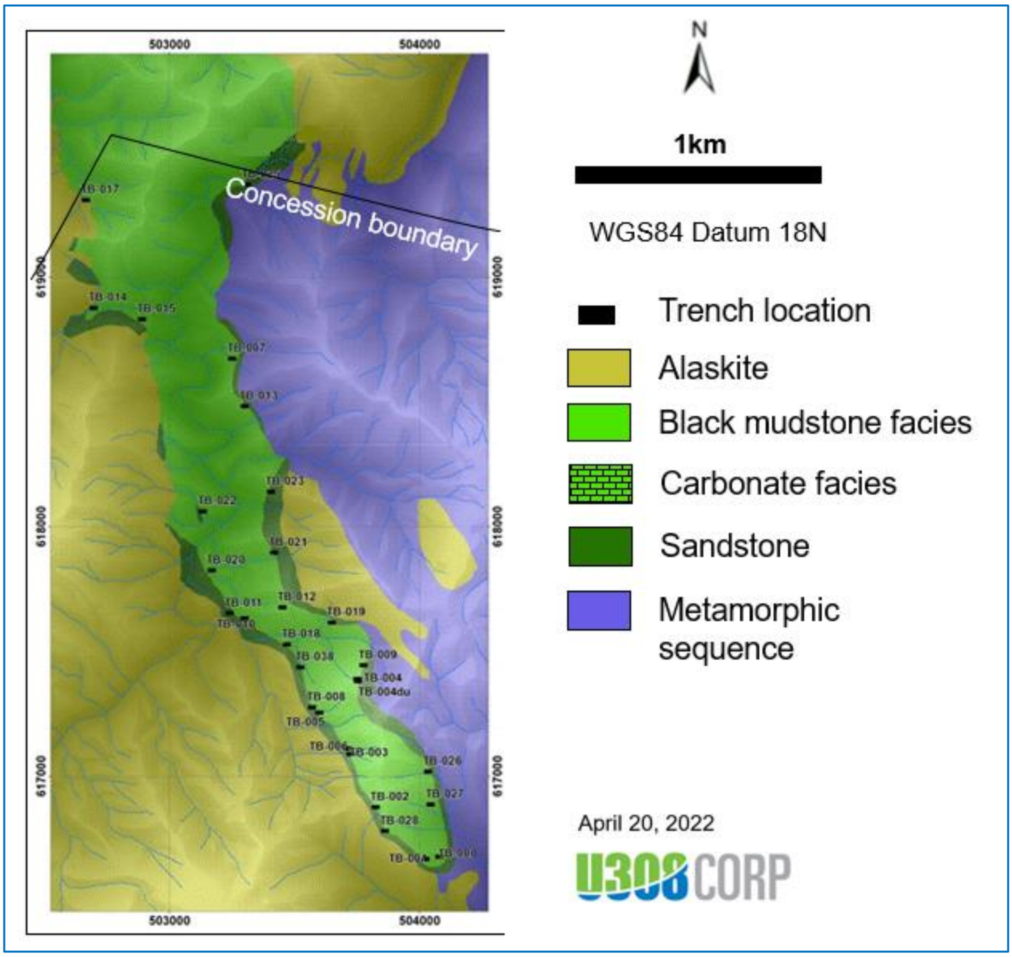

Figure 6-1. Geological map of the Berlin Project showing the location of trenches.

Sample collection was described in detail in a prior technical report (Coffey Mining, 2012)

A summary of assay results obtained from the trenches is shown in Table 6-1.

Table 6-1. Assay results from the mineralized intervals of trenches at a 0.4% U_3O_8 cut-off grade

Trench	True thickness (m)	U_3O_8 (%)	U_3O_8 (lb/t)	V_2O_5 (%)	P_2O_5 (%)	Mo (ppm)	Re (ppm)	Ag (ppm)	Ni (ppm)	Zn (ppm)	Y_2O_3 (ppm)	Nd_2O_3 (ppm)
TB-000	0.73	0.114	2.51	1.00	2.3	142	0.1	2.3	432	712	245	1,078
TB-001	1.34	0.114	2.51	1.07	3.9	769	0	1.7	13	248	135	216
TB-002	2.32	0.172	3.79	0.89	4.9	140	0	1.6	37	40	205	853
TB-003	1.35	0.085	1.88	0.86	6.1	173	0.1	0.9	25	114	264	429
TB-004	1.68	0.083	1.83	1.08	3.7	172	0	0.3	278	570	241	1,180
TB-004du	2.55	0.93	2.05	1.10	12.8	88	0	0.7	54	116	257	851
TB-005	2.01	0.136	2.99	0.57	12.2	105	0	0.9	32	74	176	637
TB-006	1.86	0.1	2.21	0.70	13	40	0.1	1.3	19	39	197	621
TB-008	1.7	0.075	1.65	0.75	11.4	30	0	0.8	17	34	162	733
TB-009	2.64	0.134	2.95	0.83	14.6	146	0	0.4	43	85	237	840
TB-010	0.88	0.065	1.43	0.98	15.7	126	0	0.4	409	511	171	860
TB-011	0.99	0.039	0.85	0.82	3.6	16	0	0.7	57	115	353	1,145
TB-012	2.88	0.081	1.79	0.41	0.37	216	0	3.6	42	80	127	454
TB-013	0.5	0.077	1.69	0.96	19.6	81	0.1	0.7	382	502	249	960
TB-014	0.71	0.063	1.38	0.59	4.9	58	0.2	1.7	45	90	26	123
TB-018	1.95	0.064	1.41	0.68	12	38	0	0.4	50	73	249	755
TB-019	2.24	0.066	1.46	1.12	3	165	0	1.4	196	480	265	1,341
TB-020	1.32	0.145	3.19	1.32	16.6	27	0.1	2.9	24	33	215	291
TB-021	2.2	0.142	3.13	0.86	15.1	34	0.1	1.9	209	262	264	1,016
TB-022	2.39	0.085	1.87	0.94	8.7	179	1.8	2.8	30	48	107	332
TB-023	1.9	0.069	1.53	0.91	12.2	60	0	0.9	430	612	235	933
TB-025	0.88	0.081	1.79	1.01	13	216	0	0.5	13	6	249	925
TB-026	0.42	0.068	1.5	0.96	12.3	343	8	3.9	1873	2908	71	336
TB-027	5.47	0.11	2.41	0.86	17.4	238	0	1.9	783	2213	223	971
TB-028	2.72	0.134	2.94	0.46	6.7	153	0	1.2	33	138	163	683
TB-038	2.08	0.086	1.9	0.93	13.3	70	0	0.6	79	243	176	729

6.3.4 Discussion

Exploration has been undertaken entirely through mapping, ground radiometrics and drilling due to the continuity of mineralization discussed in Section 7. Ground magnetic traverses across the mapped contacts of the stocks and batholiths, supported by forward modelling of the form of the contact at depth with magnetic susceptibility values from bore hole core would likely help in defining areas where the mineralized layer may be cut and removed by intrusive bodies.

6.4 Drilling

6.4.1 Drill Programs

A program of 82 diamond drill holes for 18,523m was completed on the Berlin Project by Kluane Drilling Ltd. (“Kluane”) of Whitehorse, Canada, between September 2010 and October 2011

(Figure 6-2). Several holes were typically drilled form each platform and hence the drill location map (Figure 6-3) shows the platform location instead of the individual drill hole traces.

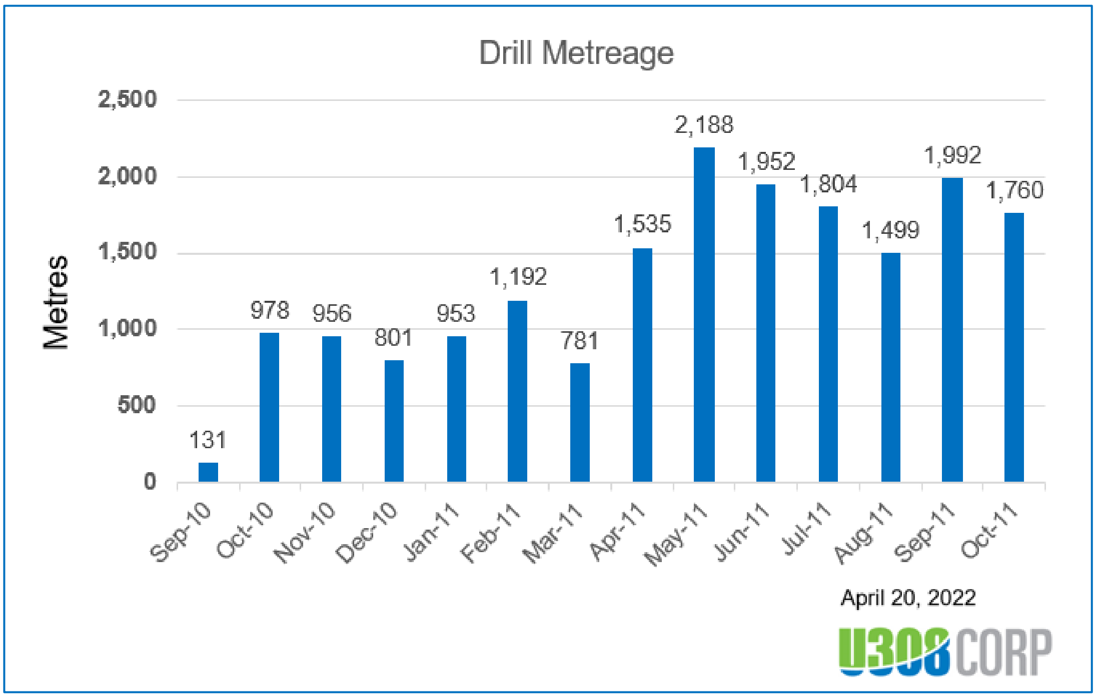

Figure 6-2. Chart showing metreage drilled by month on the Berlin Project in 2010 and 2011.

Drill header data is provided by hole number in Table 6-2 and by drill holes are listed by platform in Table 6-3.

Kluane used man-portable KDHT-1000, wireline rigs. All holes were collared with N-thin-wall (“NTW”) that has a core diameter of 57mm, comparable with HQ at a 63.5mm diameter and were typically reduced at depth to B-thin-wall (“BTW”) that has a core diameter of 42mm, comparable with the 47.6mm diameter of NQ core.

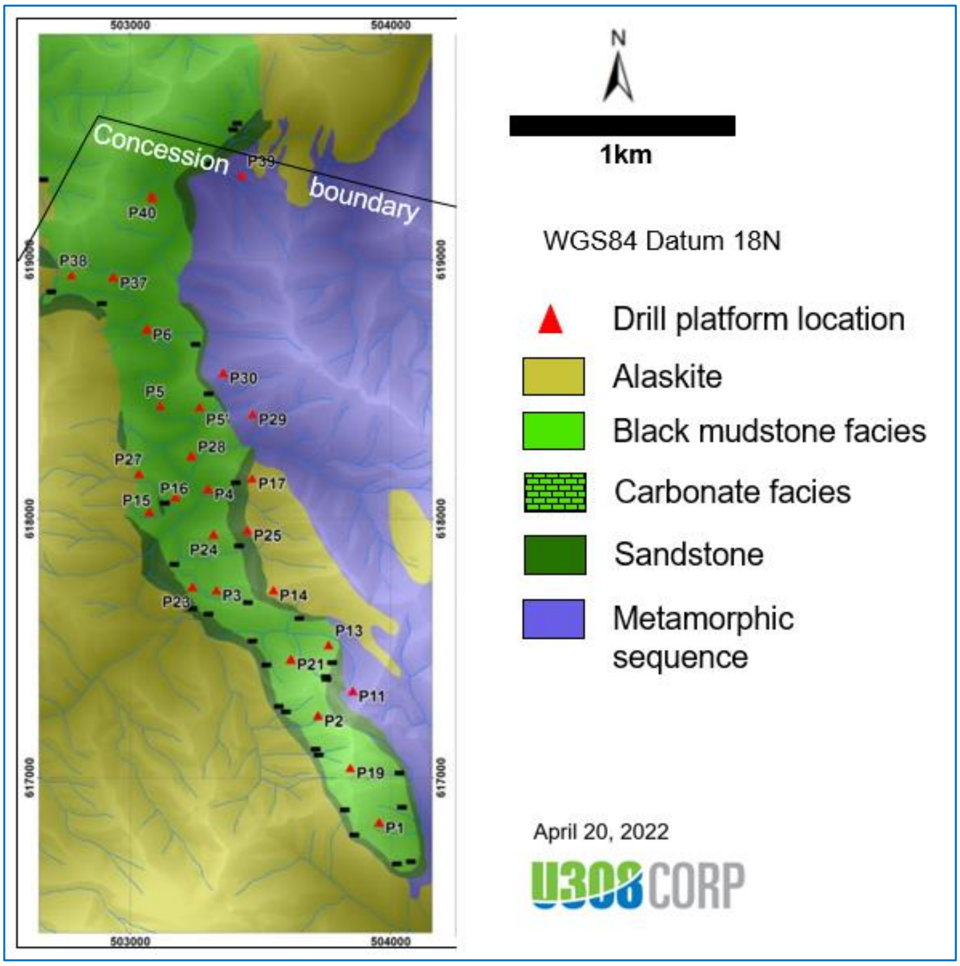

Figure 6-3. Map of the Berlin Project showing the location of platforms at which drill holes were collared.

Table 6-2. Drill hole header data for the Berlin Project.

Drill Hole #	Platform	Easting (m UTM)	Northing (m UTM)	Altitude (m)	Length (m)	Azimuth of Drill Hole (°)	Inclination of Drill Hole (°)
DDB-001	P1	503,959.2	616,828.3	898.4	131.0	73	66
DDB-002	P1	503,956.8	616,827.4	899.3	100.6	258	44
DDB-003	P1	503,956.4	616,827.3	899.3	132.6	263	79
DDB-004	P2	503,723.4	617,242.6	959.7	281.9	55	65
DDB-005	P2	503,720.8	617,240.5	959.2	163.1	242	66
DDB-006	P2	503,721.1	617,240.6	959.2	300.2	322	89
DDB-007	P3	503,332.4	617,725.2	795.8	237.7	75	54
DDB-008	P3	503,332.4	617,725.2	795.8	131.4	249	56
DDB-009	P3	503,332.4	617,725.2	795.8	150.9	100	87
DDB-010	P4	503,301.3	618,115.6	706.3	271.3	85	43
DDB-011	P4	503,298.0	618,114.9	705.4	165.5	268	65
DDB-012	P4	503,300.8	618,115.6	706.0	178.9	85	82
DDB-013	P5'	503,267.3	618,431.6	729.6	350.4	69	61
DDB-014	P5'	503,267.7	618,431.7	729.6	271.3	0	89
DDB-015	P5	503,117.5	618,436.6	688.4	194.0	260	88
DDB-016	P5	503,117.2	618,436.4	688.4	222.5	252	52
DDB-017	P6	503,064.6	618,732.6	681.5	286.5	238	85
DDB-018	P6	503,063.7	618,732.0	681.4	249.9	245	45
DDB-019	P6	503,065.0	618,731.7	681.6	280.4	244	64
DDB-020	P6	503,067.4	618,733.3	682.1	323.1	65	69
DDB-021	P30	503,358.5	618,564.4	843.8	131.0	252	46
DDB-022	P30	503,358.8	618,564.5	843.8	150.9	252	68
DDB-023	P30	503,359.0	618,564.6	843.8	303.9	271	89
DDB-024	P30	503,359.0	618,564.3	843.8	195.7	252	80
DDB-025	P28	503,236.2	618,242.7	723.7	207.2	264	88
DDB-026	P28	503,236.2	618,242.8	723.7	192.0	249	67
DDB-027	P28	503,235.8	618,243.1	723.8	185.9	248	50
DDB-028	P28	503,236.6	618,246.2	723.4	230.0	73	72
DDB-029	P28	503,236.7	618,246.1	723.4	304.8	68	54
DDB-030	P29	503,471.3	618,404.0	838.9	144.0	246	53
DDB-031	P11	503,856.0	617,336.0	984.9	330.7	234	67
DDB-032	P29	503,471.5	618,404.2	839.2	179.8	250	64
DDB-033	P29	503,471.6	618,404.1	839.2	402.3	255	78
DDB-034	P11	503,856.1	617,336.1	985.1	346.0	238	79
DDB-035	P11	503,856.3	617,336.3	985.1	355.1	170	89
DDB-036	P27	503,035.3	618,174.9	776.7	253.0	58	66
DDB-037	P17	503,468.9	618,156.8	829.9	173.3	252	60
DDB-038	P27	503,035.2	618,174.8	776.7	155.4	59	82
DDB-039	P17	503,469.0	618,156.9	829.9	330.7	250	74
DDB-040	P27	503,032.8	618,173.1	777.8	155.4	245	73
DDB-041	P17	503,469.1	618,156.9	830.8	196.6	249	87

Table 6-2 Continued

Drill Hole #	Platform	Easting (m UTM)	Northing (m UTM)	Altitude (m)	Length (m)	Azimuth of Drill Hole (°)	Inclination of Drill Hole (°)
DDB-042	P16	503,176.7	618,084.8	742.8	176.1	72	77
DDB-043	P25	503,451.4	617,957.4	851.4	177.7	258	80
DDB-044	P16	503,174.3	618,083.6	742.7	88.4	252	68
DDB-045	P15	503,072.8	618,026.2	732.0	83.2	72	70
DDB-046	P25	503,451.1	617,957.3	851.4	137.8	257	60
DDB-047	P15	503,075.9	618,027.6	731.6	91.4	252	45
DDB-048	P24	503,322.3	617,939.4	801.2	213.4	0	90
DDB-049	P24	503,322.3	617,939.3	801.2	224.6	80	70
DDB-050	P39	503,428.5	619,326.9	703.2	254.5	268	45
DDB-051	P24	503,322.2	617,939.2	801.2	274.5	80	53
DDB-052	P40	503,086.0	619,240.0	689.7	190.5	0	90
DDB-053	P24	503,322.7	617,938.8	801.0	214.9	240	70
DDB-054	P40	503,086.6	619,240.0	689.1	187.5	88	45
DDB-055	P24	503,319.6	617,938.7	801.1	196.6	260	50
DDB-056	P40	503,086.9	619,240.0	689.5	166.8	88	60
DDB-057	P23	503,241.3	617,736.7	765.3	81.9	0	90
DDB-058	P40	503,086.1	619,240.1	689.1	600.0	260	60
DDB-059	P23	503,238.1	617,736.9	765.3	131.1	276	45
DDB-060	P23	503,242.0	617,736.6	765.2	115.2	96	45
DDB-061	P23	503,239.8	617,735.9	765.6	118.9	0	45
DDB-062	P14	503,551.2	617,725.2	885.7	112.8	276	45
DDB-063	P14	503,551.2	617,725.2	885.7	89.9	276	65
DDB-064	P14	503,551.2	617,725.2	885.7	108.2	276	60
DDB-065	P40	503,084.0	619,248.9	687.2	265.2	358	60
DDB-066	P14	503,551.2	617,725.2	885.7	268.2	276	80
DDB-067	P21	503,619.3	617,457.1	875.0	201.2	0	90
DDB-068	P40	503,084.0	619,248.9	687.2	459.7	178	45
DDB-069	P21	503,618.5	617,459.5	874.1	196.6	246	60
DDB-070	P21	503,617.6	617,457.2	874.5	285.0	66	60
DDB-071	P37	502,934.9	618,933.2	708.9	324.6	0	90
DDB-072	P21	503,617.5	617,457.0	874.8	268.2	161	45
DDB-073	P37	502,937.8	618,932.7	709.1	382.5	100	72
DDB-074	P21	503,617.0	617,458.8	874.0	246.9	310	55
DDB-075	P37	502,937.7	618,933.0	708.9	332.4	280	74
DDB-076	P13	503,763.8	617,513.7	895.0	152.4	66	75
DDB-077	P13	503,763.9	617,513.7	895.0	295.7	0	90
DDB-078	P37	502,936.9	618,931.9	709.3	431.3	0	65
DDB-079	P19	503,847.0	617,039.0	1,034.2	306.3	0	90
DDB-080	P38	502,776.3	618,941.2	756.2	163.1	280	50
DDB-081	P19	503,847.0	617,039.0	1,034.2	378.0	57	60
DDB-082	P19	503,847.0	617,039.0	1,034.2	185.9	237	60

Table 6-3. Drill hole number and associated drill metreage listed by platform number for holes drilled on the Berlin Project

Drill platform	Drill Hole #	Drill hole length (m)
1	DDB001	131
1	DDB002	101
1	DDB003	133
2	DDB004	282
2	DDB005	163
2	DDB006	300
3	DDB007	238
3	DDB008	131
3	DDB009	151
4	DDB010	271
4	DDB011	166
4	DDB012	179
5'	DDB013	350
5'	DDB014	271
5	DDB015	194
5	DDB016	223
6	DDB017	286
6	DDB018	250
6	DDB019	280
6	DDB020	323
11	DDB031	331
11	DDB034	346
11	DDB035	355
13	DDB076	152
13	DDB077	297
14	DDB062	113
14	DDB063	90
14	DDB064	108
14	DDB066	268
15	DDB044	88
15	DDB045	83
15	DDB047	91
16	DDB042	176
17	DDB037	173
17	DDB039	331
17	DDB041	197
19	DDB079	304
19	DDB081	375
19	DDB082	186
21	DDB067	201
21	DDB069	197
21	DDB070	285
21	DDB072	268
21	DDB074	247
23	DDB057	82
23	DDB059	131
23	DDB060	115
23	DDB061	150
24	DDB048	213
24	DDB049	225
24	DDB051	275
24	DDB053	215
24	DDB055	197
25	DDB043	178
25	DDB046	138
27	DDB036	253
27	DDB038	155
27	DDB040	155
28	DDB025	207
28	DDB026	192
28	DDB027	186
28	DDB028	230
28	DDB029	305
29	DDB030	144
29	DDB032	180
29	DDB033	402
30	DDB021	131
30	DDB022	151
30	DDB023	304
30	DDB024	196
37	DDB071	325
37	DDB073	382
37	DDB075	332
37	DDB078	431
38	DDB080	156
39	DDB050	255
40	DDB052	191
40	DDB054	187
40	DDB056	167
40	DDB058	600
40	DDB065	265
40	DDB068	462

6.4.2 Analytical Results

Analytical results from the mineralized intervals intersected are presented in Table 6-4.

Table 6-4. Assay results (at a 0.04% U_3O_8 cut-off grade) for intercepts from drill holes at the Berlin Project.

Plataform No	Bore Hole No	From	To	Estimated True Width	U_3O_8		V_2O_5	P_2O_5	Mo	Re	Ag	Ni	Zn	Y_2O_3	Nd_2O_3
		(m)	(m)	(m)	%	lb/t	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
P1	DDB001	109.7	111.2	1.5	0.079	17393	0.68	14.6	294	1.8	5.9	1140	2930	641	154
	DDB002	79.2	82.3	3.0	0.137	30185	0.76	9.1	360	5.1	5.9	940	171	700	173
	DDB003	80.8	83.8	3.1	0.124	27181	0.71	17.6	626	7.0	3.8	1809	6349	784	160
P2	DDB004	Bore Hole did not reach target depth													
	DDB005	138.7	146.3	7.6	0.152	33426	0.62	10.7	578	8.2	6.2	1462	365	662	177
	DDB006	199.7	201.2	1.5	0.046	10098	0.33	5.3	142	1.6	2.3	358	719	273	75
P3	DDB007	152.4	155.5	3.1	0.115	25316	0.45	8.9	632	7.3	2.2	1958	2922	386	85
	DDB008	91.4	93.0	1.5	0.068	15057	0.73	14.4	81	0.5	5.5	206	679	916	239
	DDB009	94.5	96.0	1.5	0.032	7035	1.07	8.1	63	0.4	8.0	802	2660	260	67
P04	DDB010	207.9	211.9	4.0	0.103	2.26	0.4	7.6	584	5	3	2660	3215	402	105
	DDB011	123.2	125.9	2.7	0.126	2.76	0.5	3.7	609	7	3	2197	3319	491	113
	DDB012	135.5	138.2	2.7	0.078	1.71	0.3	6.3	404	5	3	1712	2532	340	92
P05	DDB015	161.9	163.9	2.0	0.136	2.99	0.5	10.0	658	7	3	2773	3905	518	124
	DDB016	182.2	186.2	4.0	0.099	2.18	0.4	7.6	552	6	2	2178	2920	378	93
P05	DDB013	330.7	332.7	2.0	0.131	2.89	0.5	9.2	741	10	4	4768	4740	554	138
	DDB014	259.9	261.9	2.0	0.142	3.13	0.5	10.3	725	8	3	3515	4670	605	150
P06	DDB017	237.5	240.5	3.0	0.091	1.99	0.4	7.7	541	5	3	2580	3333	424	93
	DDB018	228.0	229.8	1.8	0.129	2.83	0.4	9.4	558	8	3	2406	3694	608	151
	DDB019	225.8	228.4	2.6	0.092	2.03	0.4	7.5	493	5	2	1944	2857	428	102
	DDB020	295.6	298.5	3.0	0.091	2.00	0.4	7.4	575	7	3	3240	3293	496	127
P11	DDB031	295.1	297.7	2.5	0.090	1.99	0.3	2.3	409	4	2	1594	2458	368	82
	DDB034	296.4	299.4	3.0	0.111	2.44	0.5	2.3	593	6	2	1977	2910	403	86
	DDB035	69.9	77.9	8.0	0.120	2.64	0.5	9.7	596	5	3	2434	3237	470	110
	DDB035	79.6	82.5	2.9	0.132	2.90	0.5	11.4	619	5	3	2224	3592	446	90
	DDB035	83.2	89.9	6.7	0.130	2.87	0.5	9.1	686	6	3	2972	3613	532	118
	DDB035	90.5	92.1	1.6	0.110	2.41	0.7	12.3	1007	5	4	3129	4249	384	73
	DDB035	130.7	134.6	3.9	0.162	3.56	0.6	13.0	747	6	4	3056	4230	641	135
	DDB035	301.9	304.0	2.1	0.093	2.04	0.4	8.6	671	6	2	2090	2465	290	51
	DDB035*	306.6	307.8	Low Recovery											
P13	DDB076	74.7	77.6	3.0	0.118	2.59	0.5	9.3	675	6	4	2928	3387	511	118
	DDB077	116.3	130.8	3.0	0.149	3.29	0.6	10.6	739	7	3	3120	3807	579	127
	DDB077*	244.7	245.4	Low Recovery											
P14	DDB062	82.3	83.1	0.8	0.044	0.96	0.3	1.8	122	0	3	738	1600	490	166
	DDB062	83.8	84.7	0.9	0.112	2.47	1.0	12.7	23	1	27	1145	3210	1918	508
	DDB063	Mineralized layer faulted out													
	DDB064	Mineralized layer faulted out													
P15	DDB047	39.6	40.7	1.1	0.145	3.19	1.2	14.2	1246	13	4	3411	4894	409	91
P16	DDB042	132.8	135.8	3.0	0.112	2.46	0.4	2.3	563	7	3	2249	3269	467	102
	DDB044	65.5	66.1	0.6	0.411	9.03	0.0	21.3	1	0	0	64	226	75	16
	DDB044	67.1	68.0	0.9	0.303	6.67	1.1	19.8	1913	19	9	6611	8054	1184	274
P17	DDB037	137.2	138.0	0.8	0.045	0.98	1.0	16.3	196	1	3	1290	2290	1113	312
	DDB039	286.5	287.5	1.0	0.042	0.93	0.3	5.3	358	2	2	985	1720	152	33
	DDB039	287.9	290.1	2.2	0.159	3.51	0.5	11.3	647	8	4	2806	4295	631	167
	DDB041	170.3	171.9	1.6	0.125	2.74	0.8	2.3	226	6	6	3857	3858	589	0
P19	DDB081	352.3	355.0	2.7	0.134	2.96	0.6	11.1	820	8	3	2871	4161	526	111
	DDB081	355.1	356.6	1.5	0.060	1.33	0.3	6.6	551	4	4	2406	3768	372	111
	DDB082	131.4	132.4	1.0	0.237	5.22	1.1	21.0	1440	21	6	2520	784	926	230
	DDB082	132.6	133.7	1.1	0.049	1.07	0.3	7.8	200	4	4	295	100	375	125

Table 6-4: Continued

Plataform No	Bore Hole No	From	To	Estimated True Width	U_3O_8		V_2O_5	P_2O_5	Mo	Re	Ag	Ni	Zn	Y_2O_3	Nd_2O_3
		(m)	(m)	(m)	%	lb/t	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
P21	**DDB067**	152.7	154.1	1.4	0.111	2.44	0.5	10.2	418	7	3	1800	3217	507	99
	DDB067	154.2	155.3	1.1	0.058	1.27	0.3	7.3	184	2	2	1075	2140	479	136
	DDB070	253.0	256.4	3.4	0.108	2.38	0.5	8.9	594	5	3	2540	3578	473	116
	DDB072	181.4	183.6	2.2	0.098	2.16	0.5	9.1	509	8	3	1999	3324	483	110
	DDB072	210.9	211.6	0.7	0.064	1.40	0.4	7.9	443	3	2	1680	1790	282	64
	DDB072	212.2	213.0	0.8	0.046	1.02	0.3	6.1	331	2	1	1310	1400	210	51
	DDB072	217.9	219.5	1.6	0.090	1.99	0.4	8.9	388	7	3	1485	2422	521	122
	DDB074	214.9	215.5	0.7	0.125	2.75	1.3	26.8	49	0	12	1055	2130	1467	297
P23	**DDB057**	46.3	47.1	0.8	0.089	1.95	1.0	23.5	154	0	2	271	525	1321	328
	DDB059	48.8	49.4	0.6	0.405	8.90	1.8	1.3	3850	47	12	6680	2290	411	411
	DDB060	76.6	77.6	1.0	0.051	1.13	1.1	11.8	138	0	6	392	1121	762	174
	DDB061	88.8	89.4	0.6	0.278	6.13	1.4	26.3	1990	20	5	4930	5280	884	143
	DDB061	89.9	90.9	1.0	0.231	5.09	0.9	18.0	1170	13	5	4980	4950	1116	250
P24	**DDB048***	164.60	167.00	Low Recovery											
	DDB048	167.4	168.0	0.6	0.185	4.08	0.6	13.4	809	12	3	2410	4200	572	121
	DDB049*	190.5	192.0	Low Recovery											
	DDB051	241.4	244.0	2.6	0.118	2.59	0.5	8.8	581	7	3	2411	3210	420	103
	DDB053	157.0	159.8	2.8	0.084	1.85	0.3	6.7	485	4	2	1751	2541	362	83
P25	**DDB046***	104.2	104.7	Low Recovery											
P27	**DDB036**	111.3	115.2	4.0	0.066	1.45	0.3	5.7	533	6	2	1496	2114	246	54
	DDB036	161.5	163.5	1.9	0.046	1.00	0.3	4.5	556	5	1	1520	1630	156	31
	DDB036	222.9	225.0	2.1	0.092	2.02	0.4	6.8	454	5	2	1643	2492	372	81
	DDB038	94.7	97.5	2.8	0.061	1.34	0.4	6.1	490	6	2	1471	1827	208	41
	DDB040	100.1	100.8	0.7	0.074	1.64	0.4	7.3	558	6	2	2010	2210	215	44
P28	**DDB025**	156.3	159.1	2.8	0.133	2.93	0.4	10.0	606	6	3	2743	3787	489	0
	DDB026	159.3	162.2	2.9	0.122	2.68	0.4	9.8	630	6	3	2495	3641	443	0
	DDB027	160.3	163.2	2.8	0.084	1.84	0.4	7.2	464	4	2	1767	2475	326	0
	DDB028	181.0	183.6	2.6	0.104	2.30	0.4	7.7	482	6	2	1990	2986	420	0
	DDB029	255.4	258.4	3.0	0.128	2.81	0.5	8.8	632	8	3	3125	3927	526	70
P29	**DDB30**	Mineralized layer faulted out													
	DDB32	Mineralized layer faulted out													
	DDB033	370.5	373.2	2.7	0.094	2.06	0.4	7.4	523	4	2	2562	3365	479	115
P30	**DDB021**	113.2	113.7	0.5	0.070	1.53	0.9	19.0	11	0	1	577	1360	1543	360
	DDB022	134.6	135.1	0.5	0.092	2.02	0.8	17.9	128	4	5	2060	2700	1233	324
	DDB023	Mineralized layer faulted out													
	DDB024	Mineralized layer faulted out													
P37	**DDB071**	299.1	300.6	1.5	0.140	3.09	0.5	10.4	902	9	3	4278	4451	632	150
	DDB073	351.5	353.4	1.9	0.145	3.18	0.6	10.1	1070	12	4	6221	5085	632	146
	DDB073	353.6	354.2	0.6	0.182	4.00	0.6	11.7	901	11	6	6280	6080	979	269
	DDB075	297.1	298.4	1.4	0.148	3.25	0.5	9.7	772	9	4	3533	4071	644	173
	DDB078	404.7	405.1	0.4	0.109	2.39	0.5	11.7	646	5	3	3150	3820	437	79
	DDB078	405.6	408.4	2.9	0.153	3.37	0.6	9.5	1079	12	4	6676	5329	699	166
	DDB078	410.9	411.3	0.5	0.177	3.89	0.7	11.5	1230	20	6	8810	6930	917	221
	DDB078	411.5	412.2	0.7	0.253	5.56	0.8	15.0	1235	14	7	9070	7770	1295	353
P40	**DDB056**	112.3	114.0	1.7	0.044	0.97	0.4	4.5	351	3	19	1870	2302	165	47
	DDB065	245.2	246.2	1.0	0.058	1.27	0.3	5.4	486	4	2	2290	2070	255	51
	DDB068	434.2	435.5	1.3	0.151	3.32	0.6	11.2	1270	12	3	6660	5210	635	126

6.5 Mineral Resource Estimates

U3O8 Corp. contracted Coffey Mining to undertake a resource estimate that conformed to NI 43-101 standards on the concession area (Coffey Mining, 2012). In 2013, the resource estimate was updated to include other elements, particularly zinc and calcite. The latter was included since one of the metallurgical processes reported in the Tenova technical report modelled the production of gypsum ($CaSO_4.2H_2O$) as a by-product.

Coffey Mining (2012) recommended that a cut-off grade of 0.04% U_3O_8 is appropriate for the reported resource estimate summarized in Table 6-5, Table 6-6, Table 6-7 and Table 6-8. The Author considers the 0.4% U_3O_8 cut-off to still be appropriate. However, it is evident from the resource estimate that even a doubling of the cut-off grade to 0.8% U_3O_8 would not materially decrease Indicated resources and would only reduce the Inferred resource by 3.5%. Therefore, in the Author's opinion, the resource estimate made by Coffey (2012) and updated for specific elements by Tenova (2013), is considered reliable.

Table 6-5. Indicated resource for the principal elements estimated for the Berlin Deposit by Coffey Mining (2012) and Tenova (2013).

U_3O_8 Cut-off Grade (%)	Mineralized Material (Mt)	Grade				Contained Metal			
		U_3O_8 (%)	P_2O_5 (%)	Ni (%)	V_2O_5 (%)	U_3O_8 (Mlbs)	P_2O_5 (Mt)	Ni (Mlbs)	V_2O_5 (Mlbs)
0	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.01	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.02	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.03	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.04	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.05	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.06	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.07	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.08	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.9
0.09	0.6	0.11	8.4	0.2	0.4	1.5	0.05	3.1	5.8
0.1	0.5	0.11	8.6	0.2	0.4	1.2	0.04	2.6	4.8

Table 6-6. Indicated resource for the minor elements estimated for the Berlin Deposit by Coffey Mining (2012) and Tenova (2013).

U_3O_8 Cut-off Grade (%)	Mineralized Material (Mt)	Grade							Contained Metal					
		Mo (ppm)	Zn (%)	Y_2O_3 (ppm)	Nd_2O_3 (ppm)	Re (ppm)	Ag (ppm)	$CaCO_3$ (%)	Mo (Mlbs)	Zn (Mlbs)	Y_2O_3 (t)	Nd_2O_3 (t)	Re (t)	Ag (Moz)
0	0.6	570		460	110	6.1	2.8		0.8		290	70	3.9	0.06
0.01	0.6	570		460	110	6.1	2.8		0.8		290	70	3.9	0.06
0.02	0.6	570		460	110	6.1	2.8		0.8		290	70	3.9	0.06
0.03	0.6	570		460	110	6.1	2.8		0.8		290	70	3.9	0.06
0.04	0.6	570	0.3	460	110	6.1	2.8	48.8	0.8	4.0	290	70	3.9	0.06
0.05	0.6	570	0.3	460	110	6.1	2.8	48.8	0.8	4.0	290	70	3.9	0.06
0.06	0.6	570	0.3	460	110	6.1	2.8	48.8	0.8	4.0	290	70	3.9	0.06
0.07	0.6	570	0.3	460	110	6.1	2.8	48.8	0.8	4.0	290	70	3.9	0.06
0.08	0.6	570	0.3	460	110	6.1	2.8	48.8	0.8	4.0	290	70	3.9	0.06
0.09	0.6	570	0.3	460	110	6.1	2.9	48.7	0.8	4.0	290	70	3.8	0.06
0.1	0.5	570	0.3	460	110	6.3	2.9	47.9	0.7	3.3	240	60	3.2	0.05

Table 6-7. Inferred resource for the principal elements estimated for the Berlin Deposit by Coffey Mining (2012) and Tenova (2013).

U_3O_8 Cut-off Grade (%)	Mineralized Material (Mt)	Grade				Contained Metal			
		U_3O_8 (%)	P_2O_5 (%)	Ni (%)	V_2O_5 (%)	U_3O_8 (Mlbs)	P_2O_5 (Mt)	Ni (Mlbs)	V_2O_5 (Mlbs)
0	8.1	0.11	9.4	0.2	0.5	19.9	0.76	42.1	90.8
0.01	8.1	0.11	9.4	0.2	0.5	19.9	0.76	42.1	90.8
0.02	8.1	0.11	9.4	0.2	0.5	19.9	0.76	42.1	90.8
0.03	8.1	0.11	9.4	0.2	0.5	19.9	0.76	42.1	90.8
0.04	8.1	0.11	9.4	0.2	0.5	19.9	0.76	42.1	90.8
0.05	8.0	0.11	9.4	0.2	0.5	19.7	0.75	41.7	89.8
0.06	8.0	0.11	9.4	0.2	0.5	19.7	0.75	41.6	89.7
0.07	7.9	0.11	9.5	0.2	0.5	19.5	0.75	41.1	88.5
0.08	7.7	0.11	9.5	0.2	0.5	19.2	0.73	40.1	86.5
0.09	6.8	0.12	9.7	0.2	0.5	17.5	0.66	36.1	77.9
0.1	5.6	0.12	10	0.2	0.5	15.0	0.56	30.7	65.8

Table 6-8. Inferred resource for the minor elements estimated for the Berlin Deposit by Coffey Mining (2012) and Tenova (2013).

U_3O_8 Cut-off Grade (%)	Mineralized Material (Mt)	Grade							Contained Metal					
		Mo (ppm)	Zn (%)	Y_2O_3 (ppm)	Nd_2O_3 (ppm)	Re (ppm)	Ag (ppm)	$CaCO_3$ (%)	Mo (Mlbs)	Zn (Mlbs)	Y_2O_3 (t)	Nd_2O_3 (t)	Re (t)	Ag (Moz)
0	8.1	620		500	100	6.8	3.4		11.1		4,100	810	55.3	0.89
0.01	8.1	620		500	100	6.8	3.4		11.1		4,100	810	55.3	0.89
0.02	8.1	620		500	100	6.8	3.4		11.1		4,100	810	55.3	0.89
0.03	8.1	620		500	100	6.8	3.4		11.1		4,100	810	55.3	0.89
0.04	8.1	620	0.3	500	100	6.8	3.4	36.7	11.1	53.6	4,100	810	55.3	0.89
0.05	8.0	620	0.3	500	100	6.8	3.3	36.7	11	52.9	4,000	810	54.6	0.85
0.06	8.0	620	0.3	500	100	6.8	3.3	36.7	11	52.9	4,000	810	54.5	0.85
0.07	7.9	620	0.3	510	100	6.8	3.3	36.5	10.8	52.3	4,000	810	53.5	0.84
0.08	7.7	630	0.3	510	100	6.9	3.3	36.5	10.6	50.9	3,900	790	52.8	0.81
0.09	6.8	630	0.3	520	110	7	3.4	36.1	9.4	45.0	3,600	730	47.4	0.74
0.1	5.6	640	0.3	540	110	7.2	3.5	33.6	8	37.0	3,000	620	40.3	0.63

The statistical analysis undertaken as one of the key elements of the resource estimate showed that the radiometric measurements made with a down-hole Mount Sopris probe were within 1.7% of the grade obtained from chemical analysis of the mineralized intervals, hence there were effectively duplicate data points for the grade of each intercept used in the resource estimate.

Chemical analyses were used for the resource estimate since they included the grade of the associated elements, and not just the estimated U_3O_8 grade estimate provide by the probe. Grade composites of 0.8m were used to generate the grade data for the resource estimate. Statistical analysis was undertaken on the 0.8m composites and their distribution was reviewed in 3D. Histogram and probability plots were used to identify breaks in the data to identify possible outliers. Individual composites were ranked, and an investigation undertaken on the effect of higher grades on the standard deviation and mean of the data population. Analysis of the data showed that top-cutting of the multi-element data was not necessary for the resource estimate.

Bulk density measurements on samples from 27 mineralized intervals were used in the resource estimate.

Both traditional semi-variogram and correlation were used to analyse the spatial variability of the composites for the mineralized zones, resulting in an omnidirectional variogram being selected for the mineralized layer. The resulting variogram showed an overall good structure and generally long ranges.

The block model was created with a cell size of 4m (Easting) by 50m (Northing) by 40m (vertical) and was sub-blocked to 0.5m (Easting) by 12.5m (Northing) by 2.5m (vertical). Ordinary Block Kriging was used. A three-pass search strategy was used to estimate the U_3O_8 grade data into the mineralized zone. A sample search anisotropy was used to reflect the north-trending structure of the syncline that hosts the mineralization, and the block model volume was checked against the digital terrain model, resulting in a model that was considered by Coffey (2012) to represent the information appropriately.

An inverse distance squared to the power of two method was used for the resource estimate on the associated elements because there were fewer data points than for uranium where probe data complimented intercepts in which there had been poor core recovery.

Indicated resources were defined in an area in which the intercept spacing was 60m by 130m. Inferred resources were based on data with an approximate 200m spacing and areas with a data spacing greater than this were unclassified and were excluded from the resource estimate.

Infill drilling is required to conform to the 60m by 130m intercept spacing required for the Indicated resource category in order to update the resource classification from 93% Inferred to Indicated.

The Company does not have additional information that was obtained subsequent to the resource estimate by Coffey (2012) and Tenova (2013) that is relevant to the historic resource estimate.

In order to make the historic resource estimate current, additional check sampling would need to be done. Statistical analysis would be required to be rerun on the intercepts and the appropriateness of the cell size re-established as a check on the cell size selected by Coffey (2012). A block model would then need to be re-run and the statistical breaks that were used by Coffey (2012) to classify the resource as Indicated or Inferred would need to be checked.

The Author has not reviewed the data to the extent necessary to classify the historical resource estimate as a current mineral resource. Therefore, U3O8 Corp. is not treating the historical estimate as a current mineral resource.

6.6 Mineral Processing and Metallurgical Test Work

6.6.1 Historic Test Work

Minatome undertook initial metallurgical test work as described in the prior technical reports (Coffey Mining, 2012; Tenova, 2013). The conclusion from Minatome's metallurgical test work was that uranium recovery was approximately 85% using a combination of flotation and ultrafine grinding (Roussemet & Houot, 1979). This work did not include an estimate of processing cost.

6.6.2 Test Work Conducted by U3O8 Corp.

6.6.2.1 Initial Test Work

It was clear from the French work that the extraction of the commodities of potential value was likely to be problematic and test work commended on core from the first hole drilled by U3O8 Corp. in 2011. Test work included acid and alkaline leach and soon identified acidic ferric sulphate leach, which had been used successfully at Elliot Lake in Canada, as providing an efficient means of leaching the valuable commodities from the phosphatic host rock at Berlin

(Coffey Mining, 2012) and was the basis for the PEA undertaken by Tenova (2013) on behalf of U3O8 Corp. Composite samples from 34% of the mineralized intersections drilled in the resource area at Berlin have been used for metallurgical test work.

6.6.2.2 Beneficiation

6.6.2.2.1 Flotation

Over 50 flotation tests were conducted on mineralized material from Berlin. The separation of calcite, the main acid consumer, is problematic since its surface characteristics are similar to those of apatite, which is associated with the majority of the elements of potential value in the Deposit.

The best result achieved from the whole flotation process that included a carbon pre-float, sulphide flotation and subsequent apatite flotation, resulted in a high mass pull of 82%-86%. The resulting concentrate contains 95%-96% of the uranium, 97-98% of the sulphide, 94%-96% of the apatite with 73-79% of the calcite. Elimination of 21% to 27% of the calcite from the concentrate, while maintaining recoveries in excess of 94% of the uranium, sulphide and apatite, is likely to result in significant cost savings from reduced requirements for sulphuric and acetic acid in subsequent mineral processing.

6.6.2.2.2 Acetic Acid Pre-Leach

A pre-leach with acetic acid (vinegar) provides an effective means of selectively extracting calcite from the mineralized material. Dissolution of calcite reduces the mass of the mineralized material for further processing by between 53% and 60%. Less than 1% of the apatite is dissolved by the acetic pre-leach. Between 5% and 7% of the uranium contained in the mineralized material is extracted in the pre-leach and could potentially be recovered by downstream processing so that minimal uranium is lost from the system.

The high cost of acetic acid requires that it is regenerated with sulphuric acid. The reaction of acetic acid with calcite generates calcium acetate in solution, which reacts with sulphuric acid to form acetic acid and a gypsum precipitate. Assay of the gypsum produced from the acetic acid regeneration process shows the gypsum to be of high purity, with the potential to be a saleable by-product that would partially offset the cost of the sulphuric acid used to recycle the acetic acid.

The Option A modelled in the PEA, that included the extraction of calcite by the acetic acid pre-leach, results in a reduction of reagent consumption in subsequent acidic ferric sulphate leach. Ferric iron consumption decreases to an estimated 20kg to 50kg/t of mineralized material and sulphuric acid consumption decreases to 50-100kg/t of mineralized material.

Option B, in which no prior beneficiation is undertaken, has significantly higher rates of acid consumption. Ferric iron consumption ranges between 50kg/t and 100kg/t of mineralized material and sulphuric acid consumption ranges between 100kg/t and 350kg/t of mineralized material. Estimates of consumption used in the PEA were 85kg of ferric iron and 160kg of sulphuric acid per tonne of mineralized material.

In conclusion, beneficiation of the crushed mineralized material using acetic acid to remove calcite and concentrate the valuable commodities into 40-47% of the original mass, which makes the subsequent extraction and recovery processes more efficient, would reduce capex and opex, and would reduce the volume of tailings by 50-60%.

6.6.2.3 Leach Tests

Acidic ferric sulphate leach was first used commercially for the extraction of uranium and yttrium in the Elliot Lake mining camp in Ontario, Canada, in the 1960s and 1970s. Certain aspects of the acidic ferric sulphate leach process have been advanced and modified to optimize recoveries from the mineralized material from Berlin. The main addition to conventional acidic ferric sulphate leach was the inclusion of a dilute acid wash of the initial iron-rich residue that precipitates after the acidic ferric sulphate leach step.

The acidic ferric sulphate leach does not show significant improvements in efficiency with grind size; a relatively standard 100µm grain size is adequate for excellent metal and phosphate extraction. The first step of the acidic ferric sulphate leach was done at a relatively low temperature of 65°C at atmospheric pressure.

Slightly higher rates of extraction were achieved with a dilute hydrochloric acid wash in the second step of the acidic ferric sulphate leach process relative to those from a sulphuric acid wash. However, to avoid downstream processing complications through the introduction of chlorine into the system, it was recommended that the sulphuric acid wash be used in the extraction of metals and phosphate from mineralized material from Berlin.

Uranium extraction from the acidic ferric sulphate leach followed by a dilute sulphuric acid wash ranged from 93%-98% with an average of 96% in a 24-hour leach time. Extraction rates for the elements of potential economic interest are shown in Table 6-9.

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Table 6-9. Average leach extraction from the mineralized rock determined from metallurgical tests work on core samples from Berlin with element concentrations and estimated flow rates in the PLS resulting from the acidic ferric sulphate leach.

OPTION A – PLS Assay after Acidic Ferric Sulphate Leach					OPTION B – PLS calculated after Acidic Ferric Sulphate Leach		
Element	Element in PLS (ppm)	Element Mass Flowrate in PLS (kg/h)	Element Mass Flowrate in PLS (tph)	% Leach Extract	Element Mass Flowrate in PLS (tph)	Element Mass Flowrate in PLS (kg/h)	Element in PLS (ppm)
U	595	115,668	0.1157	98	0.1195	119,531	464
V	1,391	270,410	0.2704	73	0.2034	203,389	790
Mo	183	35,575	0.0356	51	0.0330	33,038	128
P	20,291	3,944,590	3.9446	100	3.9446	3,944,590	15,328
Ni	857	166,601	0.1666	60	0.1819	181,902	707
Zn	1,807	351,281	0.3513	98	0.4011	401,069	1,559
Mn*	146	28,305	0.0283	N/A*	0.0276	27,590	107
Y	195	37,908	0.0379	91	0.0403	40,301	157
Nd	44	8,554	0.0086	64	0.0062	6,226	24

* Manganese (Mn) was added during the processing of the mineralized material – it is not contained in the mineralized material in significant quantities. Therefore, its recovery in the PLS is so that it can be recycled.

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7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology & Tectonic Framework

The following section is based on the Coffey Mining (2012) and Tenova (2013) technical reports.

The Berlin Project lies on the eastern flank of Colombia's Cordillera Central. The basement in the central part of the Cordillera Central consists of greenschist to lower amphibolite facies metamorphic rocks correlated with the Precambrian to Early Mesozoic Cajamarca Complex (Bürgl and Radelli, 1962; Moreno-Sánchez *et al.,* 2008). According to Cediel *et al.* (2003), the Cajamarca Complex forms part of the Cajamarca-Valdivia terrane that consists of graphitic schists, amphibolites, intrusive rocks and mafic to ultramafic volcanics of ophiolitic origin.

The Cajamarca-Valdivia terrane is a wedge-shaped tectonic unit that tapers to the south that was accreted onto the western edge of the paleo - South American continent in Ordovician – Silurian time (Figure 7-1; Cediel *et al.,* 2003). In central Colombia, the Cajamarca-Valdivia terrane is sandwiched between the Eastern Cordillera block in the east and the Dagua-Piñon and San Jacinto terranes in the west. In contrast, in southern Colombia, the Cajamarca Complex lies directly against the western edge of the Archaean Guyana Shield that extends from there throughout northern South America.

Part of the extensive rift system responsible for the separation of North and South America in the Triassic and Jurassic extended through Colombia, Ecuador and Northern Peru (Jaillard *et al.,* 1990; Kerr *et al.,* 1997). Associated half grabens were filled with growth sequences of clastic sediments and volcanic material of dominantly andesitic composition. Evidence of igneous activity that accompanied this period of crustal extension is provided by the metaluminous I-type calc-alkaline Sonsón Batholith, which lies some 20km west of the Berlin project. The Sonsón Batholith intruded rocks of the Cajamarca Complex.

An orogenic magmatic arc was developed along the eastern flank of the Central Cordillera at approximately 120 million years ("Ma") (McCourt and Feininger, 1984), with major intrusions of calc-alkaline affinity and compressional events at 112 ± 7Ma (McCourt and Feininger, 1984).

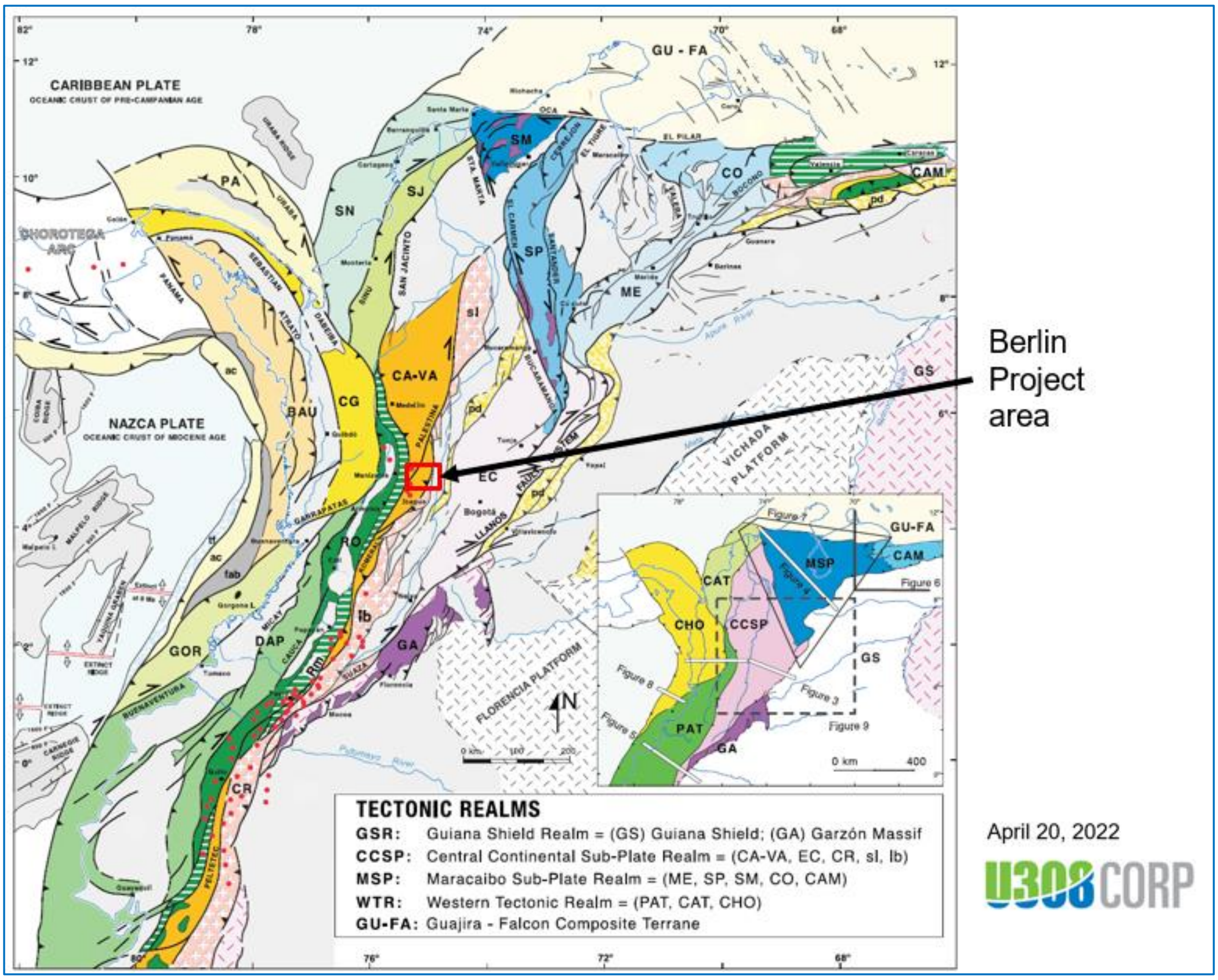
The sedimentary sequence that contains the mineralized unit at Berlin forms part of an upward-fining progression. The lower part of the stratigraphic sequence corresponds with alluvial fan facies that is interpreted to have formed against fault scarps during early phases of rift development. The subaerial fan facies grades upwards into finer-grained marine sands that are overlain by a limestone unit that passes upward into a black shale sequence which is several hundred metres thick. Fossil bivalves and gastropods in the limestones indicate a late Albian (Early Cretaceous) age and, together with ammonite fossils in the overlying black shale sequence, confirm a marine environment of deposition. This transgressive continental to marine sequence forms part of a large basin that extends from Colombia through Ecuador into Peru and the black shales constitute an important source for hydrocarbons in the region.

Cretaceous seafloor sequences of the Dagua-Pinon terrane were accreted onto the western edge of the Cajamarca-Valdivia terrane in the Aptian to Paleocene. This accretion was accompanied by intrusive activity, represented in the Berlin district by the Antioquia Batholith that has been dated at 90-58 Ma (middle to late Cretaceous; Cediel *et al.,* 2003). It has a similar metaluminous, I-type, calc-alkaline composition to the Sonsón Batholith.

The Samaná Batholith, which is also mid- to late-Cretaceous in age, is located immediately to the west of, and is intrusive into, the sedimentary sequence at Berlin.

During the Oligocene through to the Pliocene, several other terranes were accreted into the western seaboard of Colombia.

The Colombian Andes developed in response to roughly east-west shortening in the mid-Pleistocene. Related deformation in the Berlin area resulted in the formation of the syncline that hosts the mineralization in the Project area.



Berlin Project area

April 20, 2022

Figure 7-1. Main tectonic components of Colombia (after Cediel *et al.,* 2003).

7.2 Stratigraphy in the Berlin Project Area

7.2.1 Metamorphic Basement

The metamorphic basement in the vicinity of the Berlin Project is assigned to the Cajamarca Complex (Maya & González, 1995), which correlates with units known by other names such as Cajamarca Group (Nelson, 1957), metamorphic rocks of the Cordillera Central (Feininger *et al.,* 1972), Cajamarca Terrain (Etayo-Serna *et al.,* 1986) and Tahamí Terrain (Toussaint & Restrepo, 1988) (Figure 7-2). The Cajamarca Complex, which consists of greenschist-grade metamorphic rocks that had sedimentary and igneous protoliths (Nelson, 1957), is bounded by the Otú-Pericos Fault on the eastern flank of the Cordillera Central and the Jerónimo Fault in the Cauca River Valley on the west.

Basement rocks in the Berlin Project area consist of quartz–sericite schist, graphitic schist, slate and quartzite, locally with disseminated pyrite.

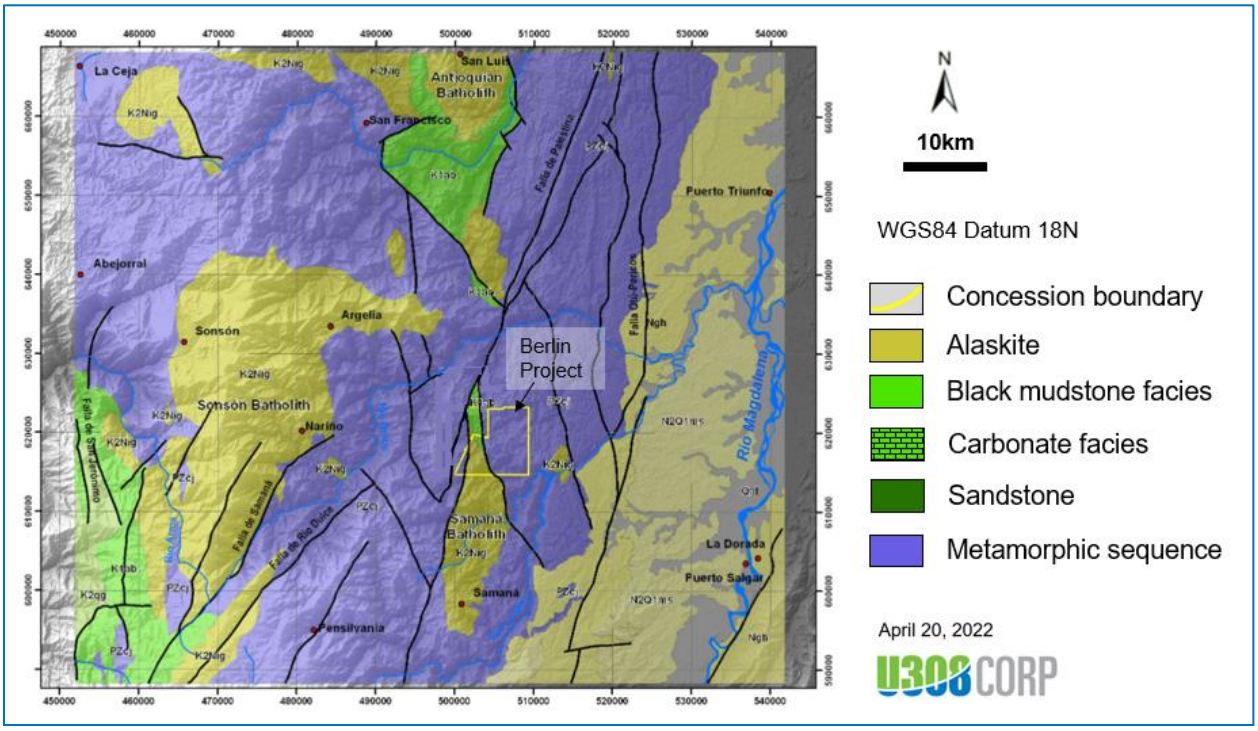


Figure 7-2. Regional geological setting of the Berlin Project.

7.2.2 Abejorral Formation

The Abejorral Formation (Bürgl and Radelli, 1962) is a Cretaceous sequence that is preserved in outliers in Caldas Province, and in the adjacent Antioquia Province to the north. This formation is discordant over the rocks of the Cajamarca Complex and has a faulted contact with the Valle Alto Formation. Facies sequence investigation by González (1980) in the provinces of Antioquia and Caldas led to the interpretation of a shallow continental shelf depositional environment with local euxinic conditions. The development of facies deposited in transitional and shallow shelf and external shelf environments occurred in the Early Cretaceous (Etayo-Serna *et al.*, 2003). Based on ammonites, González (1980) concluded that this formation is Late Aptian – Middle Albian in age. On a regional basis, the clastic component of the Abejorral Formation correlates with the Caballos and Hollin formations, while the limestone and black shale sequence corresponds with the Simiti and overlying Villeta and Napo formations of Pindell and Tabbutt (1995).

Mineralization at Berlin occurs in limestone facies that occur immediately beneath the black shale sequence that was correlated with the Abejorral Formation by Bürgl and Radelli (1962).

7.2.3 Recent Deposits

The cone-shaped volcanic vent that contains the San Diego Lake on the north-eastern margin of the Cretaceous sequence in the Berlin area is surrounded by an apron of lithic tuffs that have a polymictic clast assemblage which reflects the underlying stratigraphy.

7.3 Sedimentary Facies Description and Analysis

7.3.1 Facies Sequence

Mineralization at Berlin is made up of two types of host rock: the host lithology near surface is hosted in sandstone, while at depth, mineralization is confined to a carbonate unit. This distribution is ascribed to the sandstone host being a weathered version of the primary facies in which carbonate has been removed by oxidation related to weathering.

7.3.2 Facies Sequence Associated with Mineralization

Unit A is a crudely bedded, dominantly clast-supported conglomerate with a maximum thickness of 20m (Figure 7-3). The clast assemblage consists of metamorphic and igneous rocks. Clasts are sub-rounded and are poorly sorted. The matrix consists of coarse sand- to granule-sized material. Conglomerate facies pass upward and laterally along strike into coarse litharenite that fines upward into medium- to coarse-grained arenite. The arenite consists of tabular and lenticular beds that vary in thickness from a few tens of centimetres to a few metres.

The carbonate sequence at Berlin consists of facies B, C and D. Unit B contains a fossil assemblage dominated by gastropods and cephalopods. Unit B typically has an erosional contact with the underlying sandstones and constitutes a unit 2m-8m thick. Cobble-sized bioclasts are up to 60cm in diameter and make up between 30% and 60% of the rock. Clasts include fossil-bearing fine-grained carbonate facies, carbonate mudstones and coarse granular carbonate facies. Many clasts contain soft-sediment deformation features in which flame-like structures of matrix embay the margins of the clasts or where tongue-like protrusions from the clast project into the matrix. The matrix that supports the clasts varies from massive mud (micrite and fossiliferous biomicrite) to granular material with shells and shell fragments (packed biomicrite).

The top of Unit B is marked by an inconspicuous erosional surface that is overlain by Unit C.

Mineralization at Berlin occurs principally in Unit C and to a minor extent in the underlying Unit B and overlying Unit D of five sedimentary facies, as described in Section 7.6 below. Units C and D are remarkably consistent across the area in which the resource was estimated (Coffey Mining, 2012).

Unit C consists of sparse biomicrite with abundant fossil shell fragments that typically fine upward in most drill intercepts. Shell fragments in the basal part of the unit seldom exceed 2cm in length, while those towards the top of the unit are generally a few millimetres long and tend to be thinner than those at the base. Some intercepts show that Unit C consists of several stacked beds in which shell fragment size decreases upward. The fossil fragments consist mainly of brachiopods and mollusc shells. Unit C has subtle plane and slightly wavy lamination and varies between 20cm and 9m thick with an average thickness of 3m.

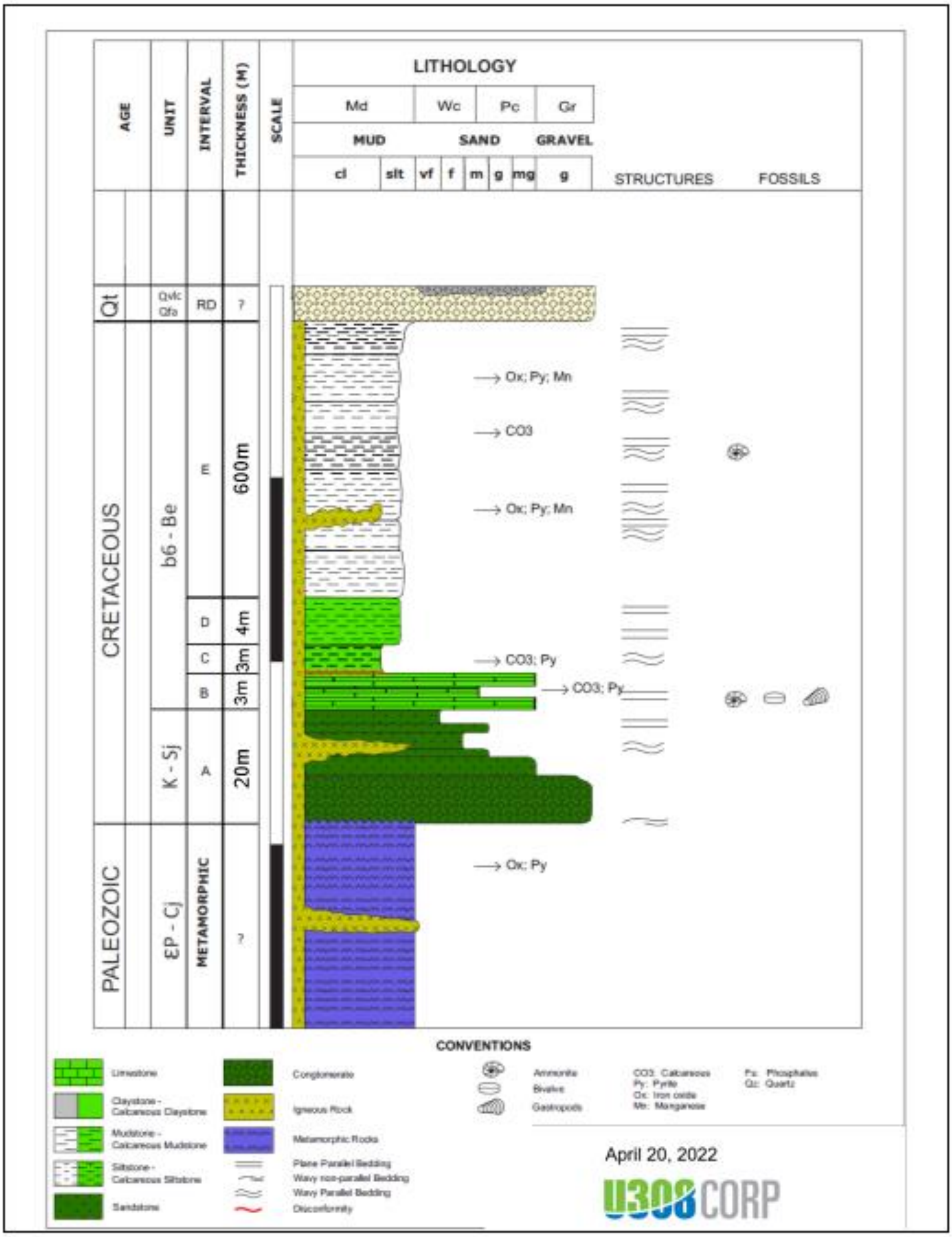


Figure 7-3. Detailed stratigraphic column defined from drill core from the Berlin Project.

Unit C is phosphate-rich and has a high organic carbon content. The carbon ranges from amorphous bitumen to material that shows an incipient graphitic crystal structure (Nichols, 2009).

Unit D averages 4m thick and has a gradational contact with the underlying and overlying units. Unit D is a plane- to slightly wavy-laminated carbonaceous mudstone interlayered with fine sand or silt arranged in alternating pale and dark laminae. Some intersections show that Unit D consists of stacked, upward-fining units that range in thickness from 5cm to 40cm. The more conspicuous upward fining units have a very fine sand at the base, that grades upward into siltstone or mudstone. Unit D contains microscopic fossil fragments. Petrographic examination shows that the rock is largely clastic in nature, consisting of a mixture of fine- to very fine quartz and calcite grains with bioclasts, cemented by carbonate.

Unit E consists of a up to 600m of monotonous mudstone facies. Parts of the sequence show conspicuous bedding defined by paler basal silty facies that fine upward into mudstone. These upward-fining units are typically a few decimeters thick. This unit contains well-sorted microscopic bioclasts and contains widely scattered ammonite shells.

7.3.3 Description of the Weathered Sequence

Unit A is virtually unchanged in the weathered part of the sequence. Unit B is distinguishable from C only where relict brachiopod and mollusc shell fragments in the sandstone are evident in the unit that forms the immediate footwall of the mineralized zone (Unit C). In the weathered environment, Units B and C appear as a single unit of interlayered sandstone and siltstone beds. Unit E, the black shale, is weathered to a pale ochre colour that extends from surface for a few tens of centimetres up to a few tens of metres. Units B and C, in contrast, are weathered to a depth of more than 100m in the southern part of the Berlin syncline.

7.4 Igneous Rocks

The mineralized sequence at Berlin lies between converging faults at the northern end of the Samaná Batholith (Figure 7-2). This igneous complex measures about 30km north-south by approximately 8km east-west. The rocks consist mainly of diorite and gabbro (~60% of the complex) with less extensive granodiorites, granites and tonalities (Muñoz, 1983). Barrero and Vesga (1976) obtained a K/Ar age of 119+/-10Ma from hornblende in the Samaná Batholith (Barremian – Aptian). Field relationships suggest that an alaskitic component was emplaced late in the development of the igneous complex (Muñoz, 1983). A contact metamorphic aureole extends some 30m to 150m into enclosing sedimentary rocks. Igneous rocks of the complex have a homogenous texture with local development of a cleavage defined by the alignment of biotite plates. Except for the alaskite component, the rest of the complex is characterised by an abundance of xenoliths of gabbro and basalt. Recent drilling has shown that the Cretaceous rocks in the Berlin Project were intruded by alaskitic dykes and sills as well as granodiorites of Cenozoic age. The alaskite has an equigranular, phaneritic, holocrystalline texture and is composed predominantly of plagioclase and quartz with minor biotite.

Two intrusive stocks lie near the eastern margin of the Berlin syncline where they intrude the Cretaceous sedimentary sequence. The stocks are mesocratic, porphyritic rocks that are made up of plagioclase, quartz and amphibole.

7.5 Structural Geology

The Berlin Project is located within the zone of influence of the Palestina Fault System that forms the western bounding structure to the Cretaceous sequence in the Berlin area. Dextral displacement of about 28km occurred in the Late Cretaceous and the Paleogene with lesser displacement having occurred during the Neogene and Recent (Feininger, *et al.,* 1972). The eastern margin of the Cretaceous sequence in the Berlin area is marked by the San Diego Fault, which is a north-striking splay that merges with the Palestina Fault near the northern tip of the Cretaceous sequence at Berlin.

The Cretaceous sedimentary sequence in which mineralization in the Berlin Project occurs has been folded into a doubly-plunging syncline. The syncline is asymmetric with a steep to over-turned eastern limb that dips to the east, while the western limb is moderately inclined to the east (Figure 7-4).

East-dipping faults have been mapped along the eastern margin of the syncline. In some areas, Palaeozoic schists are in faulted contact with the black mudstone, and kinematic indicators show an east over west sense of motion. This is consistent with west-verging thrust faults eliminating parts of the overturned stratigraphic sequence.

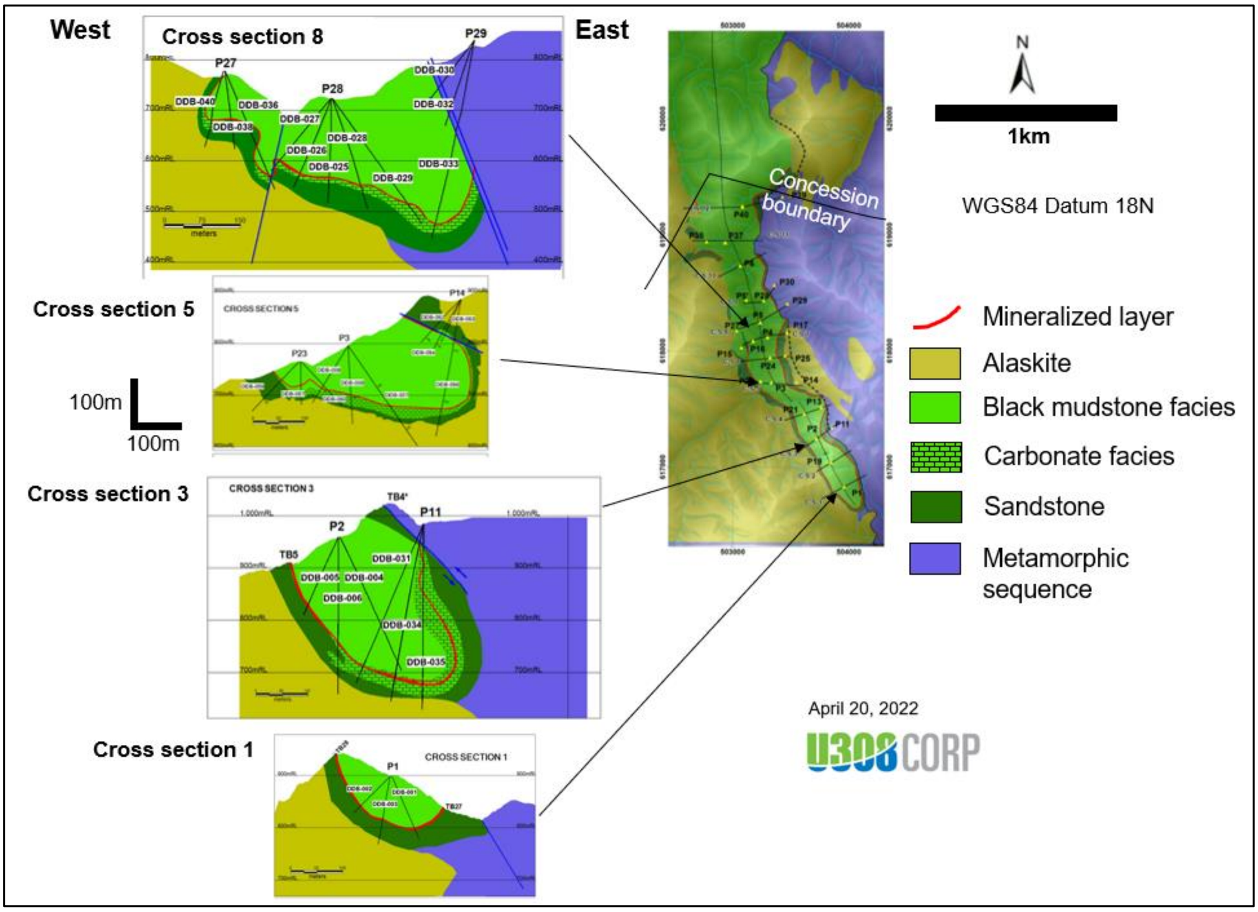


Figure 7-4. West-east cross sections through Berlin syncline.

7.6 Mineralization

7.6.1 Distribution of Mineralization

Uranium mineralization has a strong spatial relationship with sedimentary Unit C, described in Section 7.3 above and shown in Figure 7-5. Phosphate and most metals show a sharp decrease in grade at the base of Unit C, whereas grades decrease more gradually into the hanging wall. Vanadium, molybdenum, zinc and silver show a marked persistence of grades into the hanging wall. A similar distribution of mineralization is apparent in the near-surface environment in which the carbonate appears to have been removed from the rock by weathering, leaving the clastic vestiges of the original rock forming a mineralized siltstone.

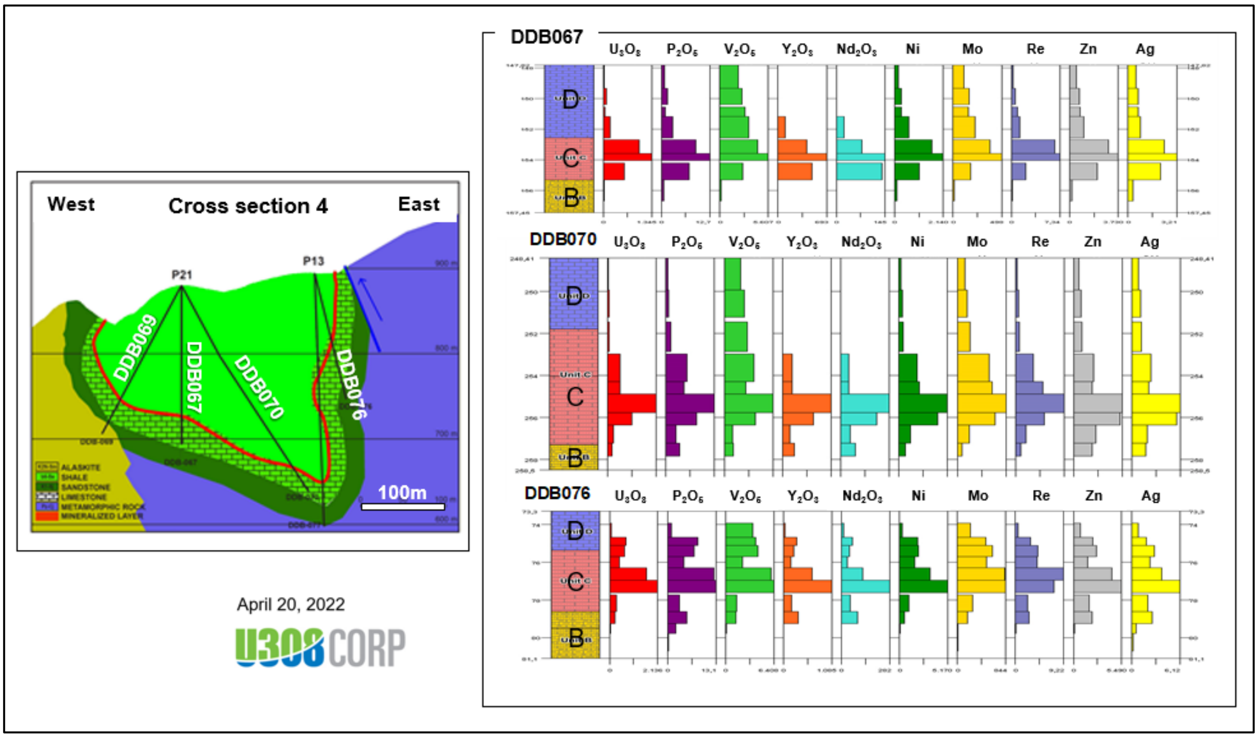


Figure 7-5. Histograms showing the distribution of metals in selected bore holes drilled in the resource area at Berlin.

The stratigraphic sequence that hosts the mineralization at Berlin is clearly identifiable in drill core and outcrop. Drill intercepts of the mineralized zone are comparable from which it is concluded that the mineralization shows consistency and continuity throughout the Deposit. Drilling and trenching have shown that the mineralized layer extends over 3.5km of strike on the eastern and western margins of a syncline, the keel of which reaches a depth of approximately 350m below surface at its deepest point. The mineralized unit ranges in thickness from 0.8m to 8m and average 3m true thickness.

7.7 Nature of the Mineralization

Mineralization at Berlin is stratabound and is tightly confined to a carbonate unit that lies between sandstones in the footwall and mudstones in the hanging wall. The nature of the mineralization at Berlin was investigated in four petrographic studies commissioned by U3O8 Corp. including:

- Renaud (2010a, b and c) used polished thin sections for study by transmitted and reflected light with a petrographic microscope. Areas of interest were investigated using the energy dispersive system (“EDS”) of a microprobe and specific mineral compositions were obtained using wavelength spectrometers. Backscatter electron detector images of relevant minerals and textural relationships were collected digitally.

- Royal Ontario Museum (2010) study of weathered mineralized material using a scanning electron microscope (“SEM”) equipped with an EDS.

- The Australian Nuclear Science and Technology Organization (“ANSTO”) study involved X-Ray diffraction (“XRD”) to identify the mineralogical phases present with quantification undertaken using Siroquant. Major and minor mineralogical phases were also assessed using a SEM equipped with an EDS.

- Caceres Bottia (2012), as part of an M.Sc. thesis, used reflected and transmitted light, SEM and cathodoluminescence (“CL”) in his study of textures and mineral compositions from the limestone-hosted mineralisation.

These studies of intercepts of the phosphatic carbonate sedimentary layer throughout the Deposit defined mineral associations and cross-cutting relationships that have been used to develop a consistent paragenetic sequence (Figure 7-6). Quartz, muscovite and bioclasts are interpreted to be the only vestiges of the original rock composition.

Pyrite is the first component of mineralization and is present in various forms as follows:

- Small, spherical framboids.

- Euhedral crystals within apatite crystals.

- In fractures in calcite where it occurs with chlorite, black isotropic apatite, quartz and sphalerite.

- With zircon and monazite in calcite cement in calcite-quartz-apatite domains in carbonate facies.

Calcite was precipitated in three phases, the first of which replaces fossil shell fragments and also occurs as irregular patches of cement between adjacent quartz and muscovite grains.

Chernykhite, a vanadium-barium mica, occurs as a partial replacement of muscovite laths and is observed to be in contact with bitumen and uraninite. Chernykhite is the only vanadium-bearing mineral identified in the petrographic studies.

Apatite occurs in both euhedral or subhedral crystals and irregular masses. Many of the crystalline apatite crystals exhibit compositional zoning around euhedral cores. REE-bearing phosphate minerals include xenotime, bastnasite and monazite.

Bitumen occurs as in interstitial filling, commonly in contact between apatite and calcite and it also crosscuts irregular masses of apatite. Some of the organic carbon has a subtly banded texture indicative of an incipient graphitic crystalline structure and may be partially interlayered with amorphous organic matter of lower thermal maturation.

Uraninite is the most abundant uranium mineral (Caceres Bottia, 2012). ANSTO reported rare occurrences of brannerite and coffinite in the mineral assemblage. Uraninite occurs as blebs that average less than 10µm in diameter. It's modes of occurrence are as follows:

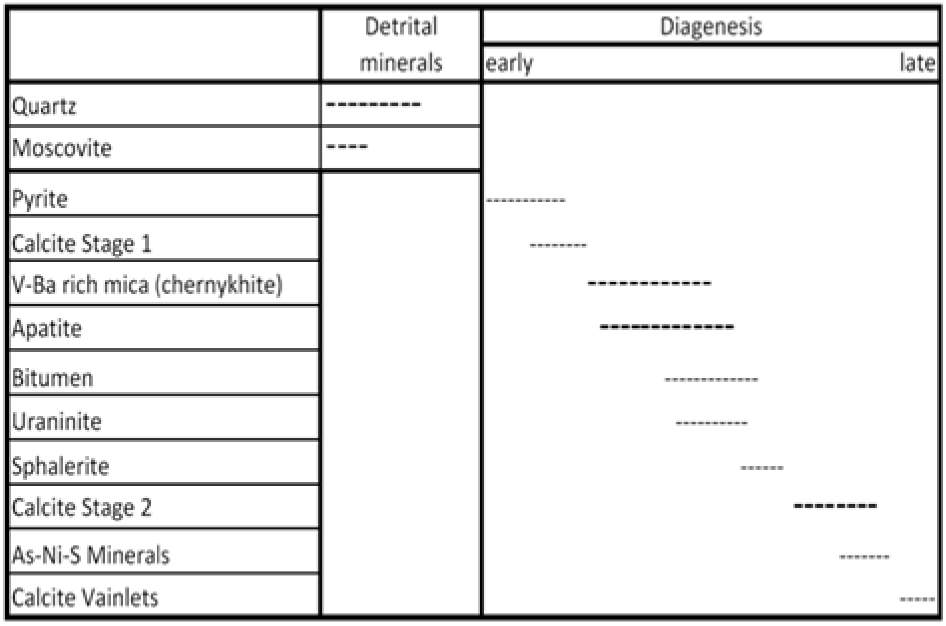
- As zones of enrichment, with yttrium, within the crystal lattice close to the exterior margins of some apatite crystals.
- Intergrown within apatite crystals and concentrated at the margins of crystals.
- Within bitumen.
- In contact with chernykhite.

Sphalerite occurs in close association with bitumen, commonly forming bands that are parallel to subtle banding evident in the bitumen

Stage 2 calcite occurs as partial replacements of apatite as well as in flame-shaped embayments into bitumen.

Nickel-arsenic sulphides occur as subhedral crystals and as irregular masses as a partial replacement of sphalerite. Nickel minerals identified are millerite, pentlandite, gersdorffite.

A third phase of calcite occurs as veinlets that cross-cut the mineralization.



	Detrital minerals	Diagenesis
		early … late
Quartz	---------	
Moscovite	----	
Pyrite		-----------
Calcite Stage 1		--------
V-Ba rich mica (chernykhite)		------------
Apatite		-------------
Bitumen		-------------
Uraninite		----------
Sphalerite		------
Calcite Stage 2		--------
As-Ni-S Minerals		-------
Calcite Vainlets		-----

Figure 7-6. Paragenisis of the mineralization in the Berlin Deposit.

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8 DEPOSIT TYPES

8.1 Berlin Deposit

The Berlin Deposit is a sediment-hosted, stratabound deposit. The host is limestone is phosphatic – similar to Cretaceous units that extend through South America from Colombia to Argentina. Elsewhere in Colombia similar stratigraphic units are mined for phosphate.

Mineralization at Berlin is genetically associated with the alaskite stocks that lie immediately west of the syncline. The alaskite is likely to be the source of uranium by analogy with the Namibian deposits like the Rossing deposit, as well as REE, molybdenum and rhenium.

Intrusion of the alaskite stocks heated the black shale sequence that overlies the deposit, and its graphite content shows that the oil source rocks have been heated through the oil window. It appears that vanadium, nickel, zinc and silver which commonly are enriched in black shales, were mobilized by the hot, hydrocarbon-rich hydrothermal fluids and migrated to the relatively more permeable phosphatic unit where they mixed with the hydrothermal fluids derived from the alaskite to form the unusual mix of commodities contained at Berlin.

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9 EXPLORATION

No further drilling has been done on the Property since the work that is included in the resource estimate and PEA (Coffey Mining, 2012 and Tenova, 2013). Field work undertaken in 2021 focused on preparing for infill drilling that will be considered in due course to provide sufficiently close-spaced intercepts for the resource to be upgraded from Inferred to Measured and Indicated. The cost of this field work was C$51,620.

The recent field work focused on the eastern and western flanks of the Deposit. Work on the east flank of the syncline in which the host stratum is located, defined the extent to which a west-verging thrust fault removed the mineralized layer as illustrated in Figure 9-1. This investigation was done by detailed ground scintillometer surveys that defined where the radioactive unit was absent and then sparse outcrops were mapped to corroborate the absence of the mineralized unit and to define the trace of the fault.

Parts of the western flank of the syncline in which the phosphate host stratum is located, are truncated by an alaskitic stock (Figure 9-2). Ground magnetometry was undertaken to refine the shape of the intrusion.

This work will be used in the planning of future infill drilling to mitigate the risk of siting drill holes that would penetrate the area where the mineralized unit has been removed by the fault in the east and the alaskitic intrusive stock in the west.

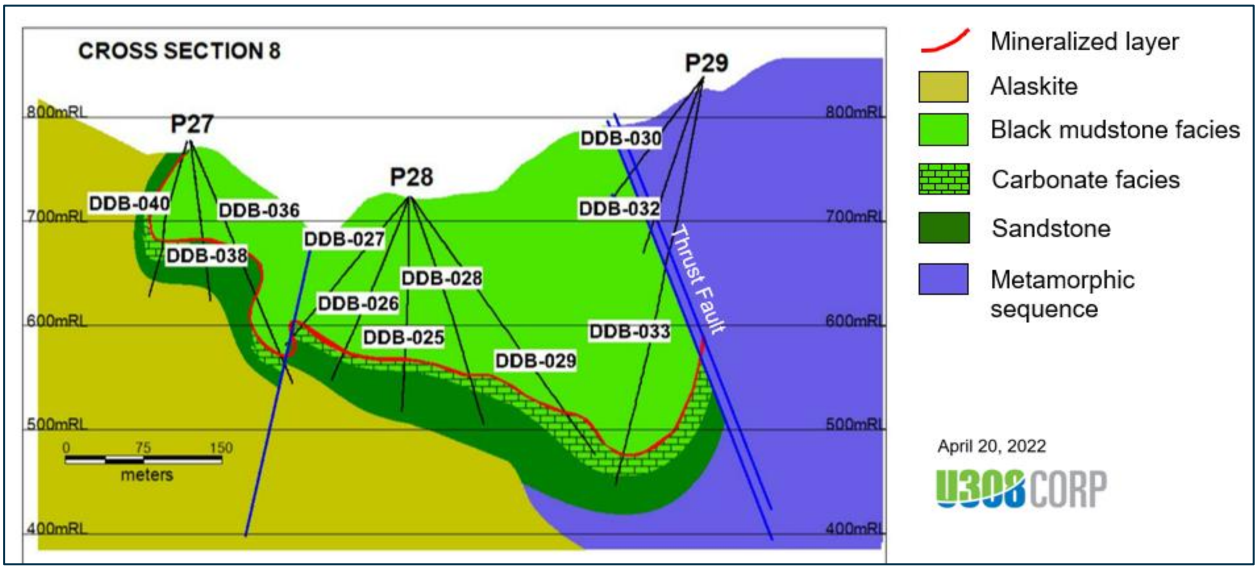

Figure 9-1. Cross section showing the removal of the mineralized stratum by a thrust fault.

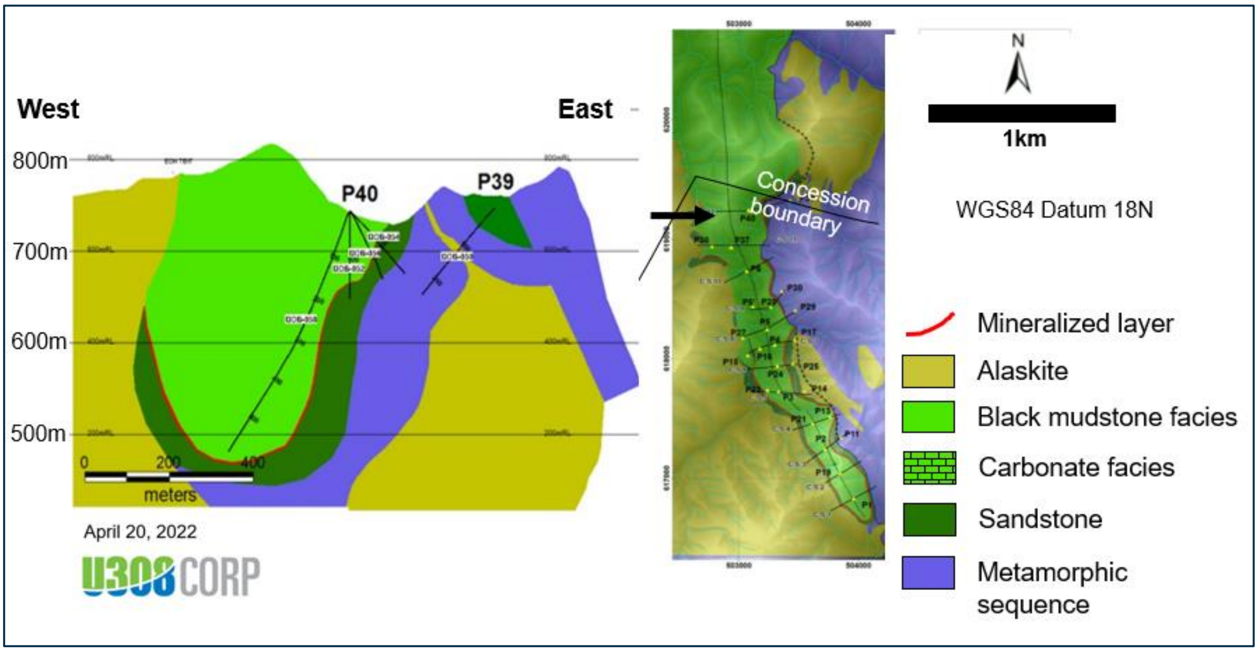

Figure 9-2. Cross section showing the removal of the mineralized stratum by an alaskitic stock.

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10 DRILLING

No drilling has been done on the Property subsequent to the drilling and associated results reported in Section 6.4 and used in the resource estimation reported in Section 6.5.

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11 SAMPLE PREPARATION, ANALYSES AND SECURITY

Coffey Mining reviewed all aspects of sampling prior to calculating the mineral resource estimate (Coffey Mining, 2012). Coffey Mining considered that "sampling, preparation, assaying, drilling and storage procedures undertaken by U3O8 Corp. meet or exceed industry standard practice and are of high quality and suitable for use in Resource studies" (Coffey Mining, 2012).

11.1 Sampling Procedure

The sampling procedure for trenches, outcrop and drill core were verified and described in detail in a prior technical report (Coffey Mining, 2012). Duplicate samples and sample blanks were inserted in the sample sequence at pre-determined intervals; they were numbered such that they were in sequence with mineralized material. Certified standards were also inserted at pre-determined intervals.

11.1.1 Trenches and Outcrop

Sampling locations were determined on the basis of radioactivity measured in the field and by geological mapping by geologists using standard industry practices. All personnel involved with the sampling wore dosimeters and masks if personnel were entering a deep trench or a confined space to do the sampling.

Samples typically consisted of 2kg-3kg of material. A duplicate sample was taken from each sample site. Standard industry practices were used in numbering, securing, storing and delivery of the samples to the La Dorada town, where the samples were delivered to a national courier that provided transport to ALS Chemex's preparation facility in Bogota. Duplicate trench samples were stored at the U3O8 Corp.'s storage facility in the town of Ibague.

11.1.2 Drill Core

Down-hole radioactivity was measured with a Mount Sopris radiometric probe in all drill holes that were accessible to the probe. *In situ* radiometric measurements were taken at 10cm intervals.

Drill core was placed in aluminium or plastic core boxes by the drill contractor who also marked the depth at appropriate intervals on the core and on the core box. Rock quality data ("RQD") was recorded by technicians at this early stage prior to the core being transported from the drill platform to the core shed.

Once the core was organized in the core shed, an additional radiometric log was made based on measurements taken at 10cm intervals with a hand-held scintillometer.

Based on the down-hole radiometric log and the log from the hand-held scintillometer measured in the core trays, sample intervals were marked by the geologists. Sample intervals were typically one metre but varied according to lithology to ensure that sample intervals did not cross significant geological contacts.

The core was then cut with diamond saws in a well-ventilated area of the core storage facility. The core was cut in half and then one half was cut again. The ½ core and the two ¼ core segments was returned to the core box as each sample section was cut. Sampling then took place with ¼ core being put in polythene sample bags for assay and the duplicate section of ¼ core being placed in polythene bags for storage for later use for assay verification or metallurgical test work, for example. The core boxes were then stored in a locked, well-ventilated storeroom.

The sample bags containing ¼ core and QAQC samples for assay were weighed and packed in boxes for shipment by commercial road transport to ALS Chemex's sample preparation facility in Bogota.

11.2 Sample Preparation

On arrival at ALS Chemex's preparation facility, the samples were ordered and weighed, dried and jaw-crushed to 10 mesh ("#") – nominal 2mm grain size. The 10# material was riffle-split, and a sub-sample of 1kg was pulverised to 75µm, then split into a 150 gram ("g") sub-sample. This pulp was shipped by ALS Chemex to their assay facilities in Canada and Peru via commercial transport company. Remaining 10# material and excess pulp sample was returned to the Company for storage at its core storage facility in Ibague.

11.3 Sample Analysis

Different sample analysis methods were required to cover the suite of elements of potentially economic interest and these analytical procedures are described below under ALS Chemex's procedure codes.

11.3.1 ME-MS61U

A 0.25g split of the sample pulp was digested with perchloric, nitric, hydrofluoric and hydrochloric acids (multi-acid digestion). The residue was topped-up with dilute hydrochloric acid and analysed by Inductively Coupled Plasma - Atomic Emission Spectrometry ("ICP-AES"). Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and such samples diluted accordingly. Samples were then analysed by inductively coupled plasma-mass spectrometry ("ICP-MS"). Results were corrected for spectral inter-element interferences. This method provided assay results for a 47-element suite and uses an internal standard certified for uranium.

11.3.2 ME-M61

This used the same method as ME-MS61U, yielding the same 47-element suite, but did not include the internal standard for uranium.

11.3.3 ME-MS81

The decomposition of the sample pulp was done using lithium metaborate fusion (code FUS-LI01) in which 0.2g of sample pulp was added to 0.9g of lithium metaborate flux and fused in a furnace at 1,000°C. The resulting melt was then cooled and dissolved in 100 millilitre ("mL") solution of 4% nitric acid and 2% hydrochloric acid. This solution was then analysed by ICP-MS. This assay method provided assay data for 38 elements, including uranium and the full suite of rare earth elements.

11.3.4 ME-XRF

This analytical method was applied specifically to samples that had a phosphate content above the 10% upper detection limit of the ICP method. A calcined or ignited sample of 0.9g was added to 9g of lithium borate flux (50% $Li_2B_4O_7$- 50% $LiBO_2$), mixed well and fused in an auto fluxer at temperatures of between 1,050°C and 1,100°C. A flat molten glass disc was prepared from the resulting melt. This disc was then analysed by X-ray Fluorescence Spectrometry ("XRF").

11.3.5 AA24

This analytical method was fire assay for samples that were periodically assayed for gold. Fire assay was of a 50g aliquot and was finished with Atomic Absorption Spectroscopy (“AAS”).

11.4 Quality Assurance and Quality Control (“QAQC”)

All U3O8 Corp. sampling was marked and supervised by qualified, experienced geologists. Appropriately trained geological technicians physically cut and packed the samples under the direction of experienced geologists. All personnel involved with the sampling in the field and the chain of custody of the samples were employed by, or contracted by, U3O8 Corp.

All assay data were sent electronically by the analytical laboratory to the Berlin Project Manager in Colombia, the VP Exploration and to the Company’s Technical Database Manager in Toronto, Canada. QAQC analysis was done by the Technical Database Manager who responded directly to the laboratory with queries related to the data and requested reanalysis or whatever remedial actions were required for QAQC purposes.

11.4.1 Laboratory

Sample preparation was done in ALS’s facility in Bogota, Colombia and fire assays were conducted at ALS’s facilities in Lima, Peru, while assay by other methods was done at ALS’s laboratory in Vancouver, Canada. ALS is a division of ALS Limited which was founded in 1863 and listed on the Australian Stock Exchange in 1952. It has over 60 analytical laboratories world-wide. ALS is certified to ISO 9001 (QC) standards and has an ISO/IEC17025 accreditation from the Standards Council of Canada.

Coffey Mining reviewed the sample preparation undertaken at the laboratory in Bogota and concluded that “the sample preparation is undertaken to a high industry standard” (Coffey Mining, 2012).

The laboratories used for all sample preparation and analytical work are large, independent, commercial service providers that are independent of U3O8 Corp.

11.5 Adequacy of Sample Preparation, Security and Analytical Procedures

In the opinion of the Author the sampling procedure used for outcrop and drill core conform with industry standards and are adequate and appropriate for the style of mineralization present at Berlin. Sample security conforms to industry standards and is adequate. In addition to industry-standard analytical methods, additional analytical procedures were required to provide quality data on percentage-level phosphate and on REEs. In the Author’s opinion, the assay procedures are adequate for the style of mineralization that constitutes the Berlin Deposit.

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12 DATA VERIFICATION

12.1 Data Verification for Coffey Mining’s Resource Estimate

Coffey Mining conducted a variety of data validation routines to verify the robustness of the database prior to undertaking the resource estimate (Coffey Mining, 2012).

The verification checks did not highlight any material issues with the database and the resulting data was considered appropriate for use in mineral resource estimation.

A total of 12 independent samples were taken and were analysed using ICP and XRF by SGS laboratories in Perth, Western Australia. These samples gave results within acceptable limits of the original assays. Uranium values of the independent samples were within 2% of the values of the original samples (Coffey Mining, 2012).

Coffey Mining checked the veracity of the QAQC data for the Berlin Project as supplied by the Company and considered it to meet or exceed industry standards (Coffey Mining, 2012). The analyses of certified standards, blanks, duplicates and laboratory standards were reviewed for sample sequences from both drill hole core and trenches.

In the opinion of Coffey Mining (2012), the QAQC data available for the Berlin Project showed overall good accuracy and precision. The following comments and recommendations were made:

- The U3O8 Corp. assaying shows good levels of accuracy and precision, and the resulting assay database is suitable for use in resource estimation studies.
- Lower grade U standards should also be sourced (e.g. 200 ppm U, 500ppm U, 800ppm U) so as to test the accuracy of lower grade mineralized intervals.
- Additional umpire and coarse-crush (10#) duplicates are required to allow for an analysis of the coarse-crush precision levels.
- It is recommended that standards, blanks, pulp duplicates and umpire pulp duplicates be sampled at a rate of 1:20.

The Company intends to incorporate these recommendations to its QAQC procedures in further work on the Project.

12.2 Data Verification by the Author

The Author selected intercepts from three intervals for check assays. He marked the sample intervals to correspond with prior sampling and supervised the quartering of the core with a diamond saw directly at SGS laboratory in Medellin. The author personally sampled 1/4 of the half core remaining from the initial sampling. Three samples were put in a labelled bag with number from UC2022-01 to UC2022-03. He maintained custody of the samples until they were delivered to SGS’s preparation facility in Medellin in central Colombia.

The core samples were dried at 100°C before a primary and a secondary crushing to -10 mesh. A 250g split was taken of the -10 mesh material and was pulverized to 95% passing 200 mesh (0.074mm screen apertures).

Two assay procedures were used on the samples since SGS method ICM40B has an upper detection limit of 1% for phosphorous, which necessitated analysis by method ICM90A. In addition, the ICM90A method includes a more aggressive leach that dissolves more of the refractory minerals than the ICM40B process. Since both assay methods provide results for most of the elements of interest, the two methods effectively provide duplicate analysis for those elements.

In the ICM40B method, the core pulp underwent four-acid digestion and analysis for 59 elements by ICP-MS. Method ICM90A used a sodium peroxide fusion on the core pulp, followed by assay for 57 elements by ICP-MS.

12.2.1 Check Sampling Compared with Prior Result

Tables 12-1 to 12-3 list the check sample assay values for the elements of potential economic interest against the original assays.

A graphical comparison of geochemical results is shown for three groups of elements, which were selected solely on the basis of their concentrations: phosphorus which was reported in percent (Figure 12-1), vanadium, nickel and zinc that have values in the 2,000 – 10,000ppm range (Figure 12-2) and the final group that have values up to approximately 1,000ppm (Figure 12-3). Phosphorus was reported as P_2O_5 in the original XRF analyses and was reported as phosphorous in the check sampling. Hence, the check sample results were multiplied by a factor of 2.29 to convert phosphorous to the pentoxide, P_2O_5.

Two of the check samples returned values 13%-18% higher than the original samples and one returned a value 11% lower than the original assay. This variation can be accounted for by the coarse-grained and somewhat patchy distribution of the phosphate observed in core and the fact that the check samples are based on ¼ core, which exacerbates the “nugget” effect. The duplicate sample pulps UC2022-03 and UC2022-03-1 returned very similar grades, suggesting that the heterogeneity is not apparent at a fine grain-size.

Uranium grades greater than 2,000ppm (0.1%) are within 10% of the original sample value, the repeat assays being higher than the original. A wider variation of up to 40% higher grade in the check sample is from a lower-grade sample in which higher variability may be expected due to inhomogeneity that is more apparent in low-grade samples.

SGS’s assay method ICM90A generally returned higher values than the original sample values due to the sodium peroxide fusion being more effective than the four-acid leach in disaggregating refractory minerals. This is particularly the case for vanadium, where one assay is 54% higher in the check assay than for the original assay (Figure 12-2). Assay method ICM90A generally yielded higher grades from analysis of the check samples compared with the original samples, especially for molybdenum, lanthanum, neodymium, chrome, copper, arsenic and antimony (Figure 12-3).

The check sampling by the Author returned results similar to the geochemical values for the original samples in the database. In fact, the check sampling returned higher grades than the original sampling for a wide range of elements. The check sampling identified a certain nugget-effect in the phosphate, which could be mitigated through the taking of larger samples when drilling recommences on the Project.

Table 12-1. Geochemical data comparison between original sample UC13864 and check sample UC2022-01

Check Sampling Data Drill Platform 37 Drill Hole # DDB078					
Down-hole metreage:		From (m)	411.48	To (m)	412.18
	Original Sample		Check Sample		
Sample Number	UC13864		UC2022-01		
Assay Code				ICM40B	ICM90A
Element	Assay Units	Original Assay Value	Assay Units	Repeat Assay Value (ICM40B)	Repeat Assay Value (ICM90A)
U	ppm	2,140	ppm	2,344	
P_2O_5	%	14.95	%		16.90
V	ppm	4,510	ppm	5,150	6,957
Ni	ppm	9,070	ppm	7,825	9,075
Zn	ppm	7,770	ppm	9,332	10,000
Mo	ppm	1,283	ppm	1,189	1,470
Sc	ppm	Not analyzed	ppm	9.3	10.0
Y	ppm	1,020	ppm	935	>1,000
La	ppm	561.5	ppm	675	677
Ce	ppm	227	ppm	230	224
Pr	ppm	74.5	ppm	68.5	87.3
Nd	ppm	302	ppm	308	355
Sm	ppm	52.6	ppm	50.9	57.8
Eu	ppm	14.4	ppm	12.1	1.4
Gd	ppm	71	ppm	74.0	84.4
Tb	ppm	10.6	ppm	10.1	11.3
Dy	ppm	64.4	ppm	59.3	74.8
Ho	ppm	17.5	ppm	13.5	18.3
Er	ppm	49.7	ppm	37.7	51.1
Tm	ppm	7.35	ppm	4.9	7.0
Yb	ppm	36.7	ppm	29.9	37.8
Lu	ppm	5.93	ppm	4.2	5.6
Cr	ppm	714	ppm	743	756
Cu	ppm	240	ppm	245	255
Fe	%	1.05	%	1.10	1.36
Pb	ppm	46.6	ppm	15.7	18.0
Ag	ppm	7.34	ppm	6.7	6.0
As	ppm	273	ppm	368	574
Sb	ppm	168	ppm	177	219
Se	ppm	837	ppm	888	-

Table 12-2. Geochemical data comparison between original sample UC11857 and check sample UC2022-02.

Check Sampling Data Drill Platform 17 Drill Hole # DDB037					
Down-hole metreage:		From (m)	137.16	To (m)	138.00
	Original Sample		Check Sample		
Sample Number	UC11857		UC2022-02		
Assay Code				ICM40B	ICM90A
Element	Assay Units	Original Assay Value	Assay Units	Repeat Assay Value (ICM40B)	Repeat Assay Value (ICM90A)
U	ppm	379	ppm	485	532
P_2O_5	%	16.25	%		19.21
V	ppm	5,810	ppm	5,594	8,386
Ni	ppm	1,290	ppm	1,149	1,732
Zn	ppm	2,290	ppm	2,515	3,165
Mo	ppm	208	ppm	161	209
Sc	ppm	Not analyzed	ppm	10.1	13.0
Y	ppm	876	ppm	917	
La	ppm	487.5	ppm	405	609
Ce	ppm	197.75	ppm	182	219
Pr	ppm	61.3	ppm	50.6	77.4
Nd	ppm	267	ppm	241	323
Sm	ppm	48.6	ppm	41.2	54.7
Eu	ppm	11.95	ppm	10.6	12.8
Gd	ppm	61.5	ppm	64.3	77.6
Tb	ppm	8.92	ppm	8.7	10.6
Dy	ppm	62.3	ppm	54.4	69.7
Ho	ppm	14.65	ppm	12.9	17.0
Er	ppm	43.5	ppm	38.0	48.2
Tm	ppm	6.11	ppm	4.9	6.5
Yb	ppm	33.8	ppm	28.8	37.4
Lu	ppm	5.22	ppm	4.7	5.5
Cr	ppm	725	ppm	785	900
Cu	ppm	162	ppm	181	231
Fe	%	1.37	%	1.55	1.86
Pb	ppm	48.4	ppm	16.2	18.0
Ag	ppm	3.48	ppm	4.9	4.0
As	ppm	447	ppm	402	519
Sb	ppm	180.5	ppm	180	257
Se	ppm	73	ppm	52	-

Table 12-3. Geochemical data comparison between original sample UC13009 and check sample UC2022-03 and its duplicate (UC2022-03-1).

Drill Hole # DDB061							
Down-hole metreage:		From (m)	88.79	To (m)	89.44		
	Original Sample		Check Sample				
Sample Number	UC13009		UC2022-03			UC2022-03-1	
Assay Code				ICM40B	ICM90A	ICM40B	ICM90A
Element	Assay Units	Original Assay Value	Assay Units	Repeat Assay Value (ICM40B)	Repeat Assay Value (ICM90A)	Repeat Assay Value (ICM40B)	Repeat Assay Value (ICM90A)
U	ppm	2,360	ppm	2,336		2,348	
P_2O_5	%	26.3	%		24.21		23.47
V	ppm	8,035	ppm	7,076	9,319	7,169	9,411
Ni	ppm	4,930	ppm	3,565	4,751	3,445	4,741
Zn	ppm	5,280	ppm	4,778	4,842	4,760	4,914
Mo	ppm	2,080	ppm	1,872	2,185	1,822	2,106
Sc	ppm	Not analyzed	ppm	7.2	8.0	7.3	8.0
Y	ppm	696	ppm	714	721	707	711
La	ppm	301	ppm	359	359	358	357
Ce	ppm	148.25	ppm	153	148	150	150
Pr	ppm	32.1	ppm	30.4	40.4	30.7	41.6
Nd	ppm	122.0	ppm	136	172	135	173
Sm	ppm	20.9	ppm	22.2	28.4	23.0	28.5
Eu	ppm	6.6	ppm	5.6	6.9	5.7	7.1
Gd	ppm	33.7	ppm	35.4	41.6	36.1	41.5
Tb	ppm	5.1	ppm	5.6	5.9	5.7	6.0
Dy	ppm	36.0	ppm	32.9	39.8	33.8	41.5
Ho	ppm	9.6	ppm	8.5	10.6	8.6	11.1
Er	ppm	30.9	ppm	27.5	31.8	27.6	31.5
Tm	ppm	4.4	ppm	3.8	4.6	3.8	4.6
Yb	ppm	26.0	ppm	25.1	26.2	24.7	26.4
Lu	ppm	4.1	ppm	4.3	4.2	4.2	4.3
Cr	ppm	926	ppm	828	909	839	959
Cu	ppm	226	ppm	193	223	195	220
Fe	%	1.12	%	1.09	1.34	1.09	1.36
Pb	ppm	44.8	ppm	12.8	13.0	12.8	13.0
Ag	ppm	5.24	ppm	5.1	6.0	5.2	6.0
As	ppm	379	ppm	379	508	386	500
Sb	ppm	158	ppm	163	199	161	200
Se	ppm	649	ppm	534	-	544	-

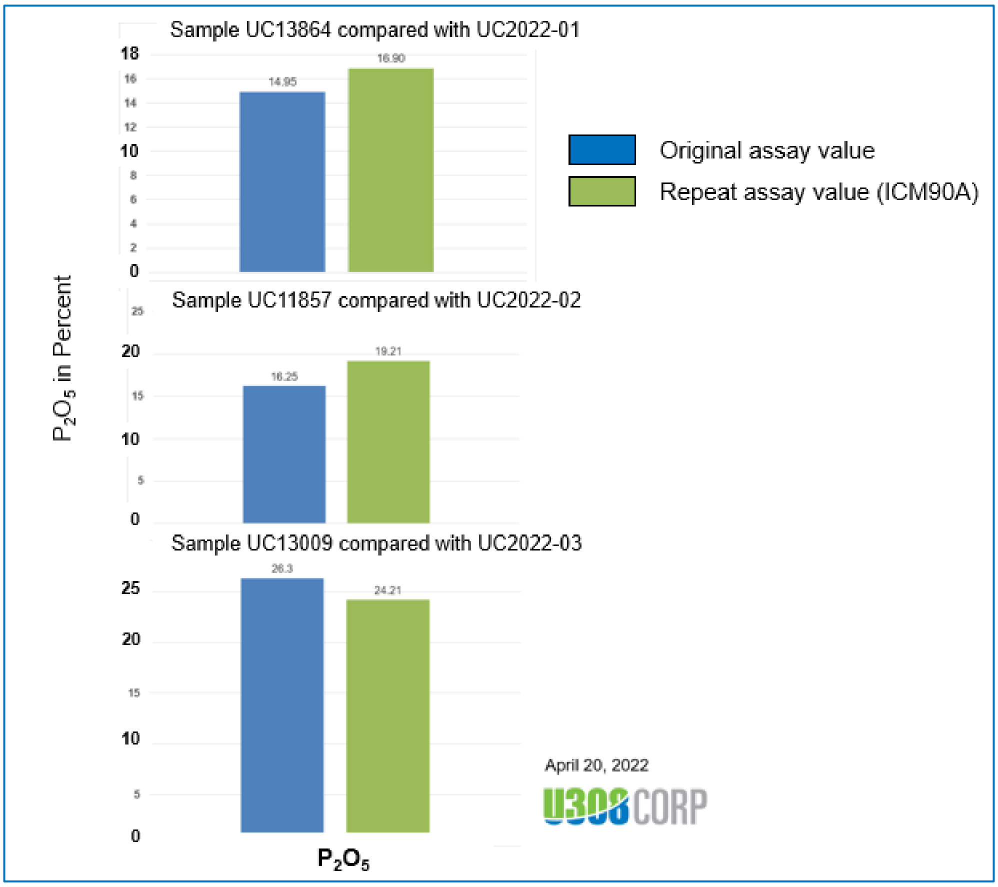


Figure 12-1. Comparison of original sample values for P_2O_5 with check samples.

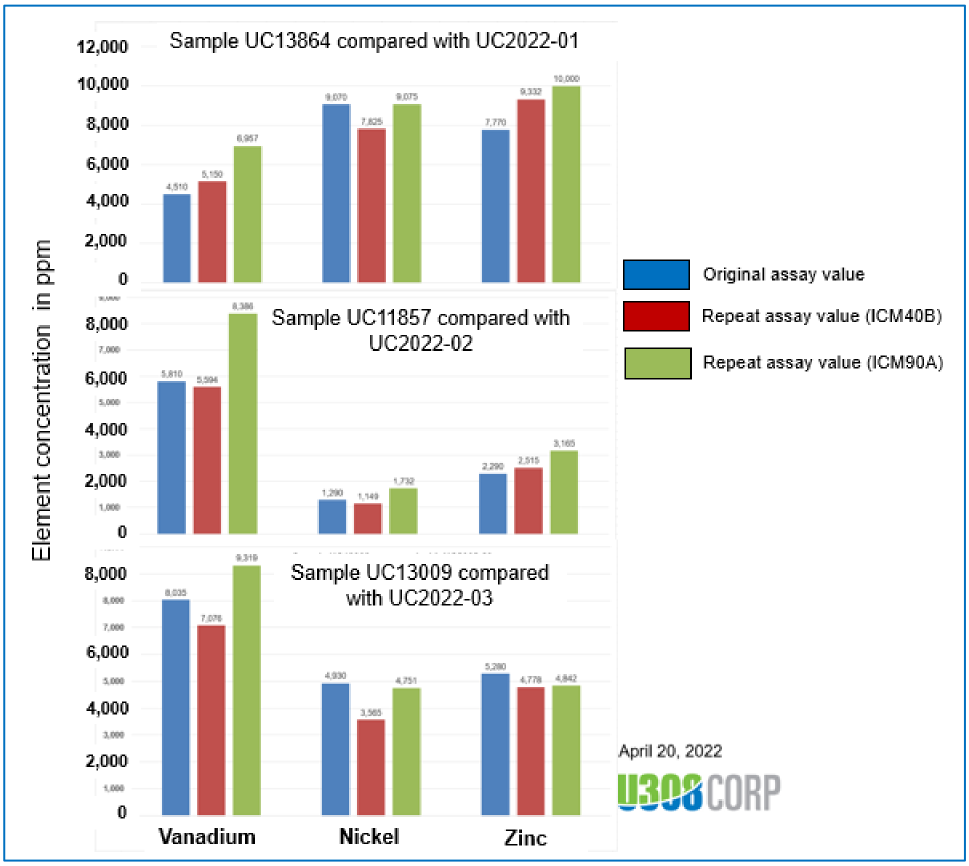


Figure 12-2. Comparison of original sample values for vanadium, nickel and zinc with check samples UC2022-01 to UC2022-03.

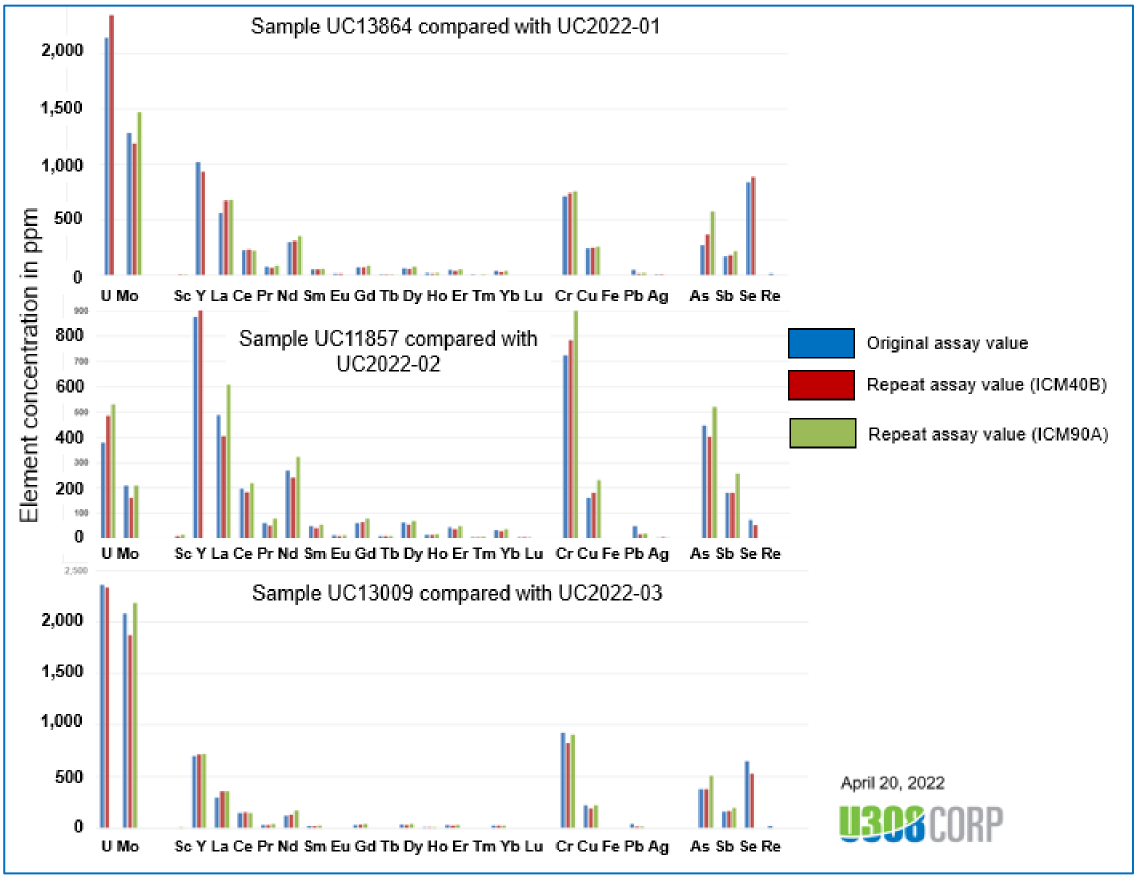


Figure 12-3. Comparison of original sample values for elements as shown for check samples UC2022-01 to UC2022-03.

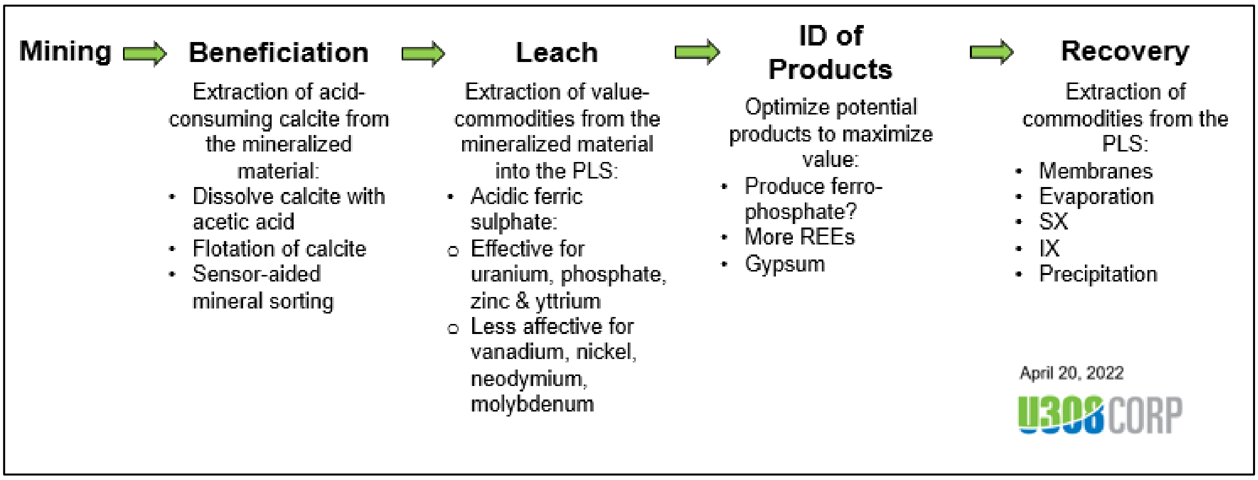
12.3 Adequacy and Conclusion

In the opinion of the Author, the check sample assays support the integrity of the original sampling and assay procedures and this finding is consistent with that of Coffey Mining (2012) in which more extensive duplicate and check sampling was done.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Mineral processing and metallurgical test work on the Project falls into three basic categories; beneficiation of the mineralized material, leaching to extract the commodities into a PLS, and recovery of the commodities from the PLS as illustrated in Figure 13-1.



Mining ⇨ **Beneficiation** ⇨ **Leach** ⇨ **ID of Products** ⇨ **Recovery**

Beneficiation

Extraction of acid-consuming calcite from the mineralized material:
- Dissolve calcite with acetic acid
- Flotation of calcite
- Sensor-aided mineral sorting

Leach

Extraction of value-commodities from the mineralized material into the PLS:
- Acidic ferric sulphate:
  - Effective for uranium, phosphate, zinc & yttrium
  - Less affective for vanadium, nickel, neodymium, molybdenum

ID of Products

Optimize potential products to maximize value:
- Produce ferro-phosphate?
- More REEs
- Gypsum

Recovery

Extraction of commodities from the PLS:
- Membranes
- Evaporation
- SX
- IX
- Precipitation

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U3O8 CORP

Figure 13-1. Illustration of the principal components of metallurgical test work and mineral processing pertinent to the Berlin Project.

Samples for metallurgical testing were taken from core from 25 drill holes from throughout the resource area and are therefore considered by the Author to be representative of the Project.

The recent test work has focused on the extraction of commodities from the PLS. Approximately C$94,000 was spent on this test work in 2021 and a further C$47,000 to the Effective Date.

13.2 Beneficiation Test Work

13.2.1 Objective

Calcite constitutes 53-60% of the mineralized material. Calcite contains low concentrations of value commodities, yet is a primary consumer of acid, an item that represents approximately 23% of the reagent cost in the process circuit. The objective of the beneficiation test work, therefore, was to separate calcite from the mineralized material. Successful removal of the majority of the calcite would likely decrease opex significantly.

13.2.2 Flotation

Over 50 flotation tests were conducted on mineralized material from Berlin. The separation of calcite is problematic since its surface characteristics are similar to those of apatite, which is associated with the majority of the elements of potential value in the Deposit.

The best result achieved from the flotation tests that included a carbon pre-float, followed by sulphide flotation and subsequent apatite flotation, achieved a high mass pull of 82%-86%. The resulting concentrate contains 95%-96% of the uranium, 97-98% of the sulphide, 94%-96% of the apatite with 73-79% of the calcite. Elimination of 21% to 27% of the calcite from the concentrate, while maintaining recoveries in excess of 94% of the uranium, sulphide and apatite, is likely to result in significant cost savings from reduced requirements for sulphuric and acetic acid in subsequent mineral processing.

13.2.3 Acetic Acid Pre-Leach

A pre-leach with acetic acid (vinegar) provides an effective means of selectively extracting calcite from the mineralized material.

Dissolution of calcite reduces the mass of the mineralized material for further processing by between 53% and 60%. Less than 1% of the apatite is dissolved by the acetic pre-leach. Between 5% and 7% of the uranium contained in the mineralized material is extracted in the pre-leach and could potentially be recovered by downstream processing so that minimal uranium is lost from the system.

The high cost of acetic acid requires that it is regenerated with sulphuric acid. The reaction of acetic acid with calcite generates calcium acetate in solution, which reacts with sulphuric acid to form acetic acid and a gypsum precipitate. Assay of the gypsum produced from the acetic acid recovery process shows the gypsum to be of high purity, with the potential to be a saleable by-product that would partially offset the cost of the sulphuric acid used to recycle the acetic acid.

The Option A modelled in the PEA, that included the extraction of calcite by the acetic acid pre-leach, results in a reduction of reagent consumption in subsequent acidic ferric sulphate leach. Ferric iron consumption decreases to an estimated 20kg to 50kg/t of mineralized material and sulphuric acid consumption decreases to 50-100kg/t of mineralized material.

Option B, in which no prior beneficiation is undertaken, has significantly higher rates of acid consumption. Ferric iron consumption ranges between 50kg/t and 100kg/t of mineralized material and sulphuric acid consumption ranges between 100kg/t and 350kg/t of mineralized material. Estimates of consumption used in the PEA were 85kg of ferric iron and 160kg of sulphuric acid per tonne of mineralized material.

In conclusion, the test work conducted was successful in demonstrating that acetic acid effectively dissolves calcite with minimal losses of the phosphate minerals. Beneficiation of the crushed mineralized material using acetic acid would remove calcite and concentrate the valuable commodities into 40-47% of the original mass, which would make the subsequent extraction and recovery processes more efficient, would reduce capex and opex, and would reduce the volume of tailings by 50-60%.

Under the parameters modelled in the PEA, the process route that incorporated beneficiation with acetic acid was economically slightly less attractive than Option B in which there was no beneficiation. The PEA resulted in an IRR of 17% with acetic acid (Option A), compared with 19% for Option B.

There are opportunities to reduce the cost of acetic acid, such as the production of acetic acid on-site from locally grown sugar cane.

13.2.4 Sensor-Based Sorting

Another technology that may effectively beneficiate mineralized material from Berlin is sensor-based sorting in which the crushed rock is spread on a conveyor belt that passes under a scanner that identifies and expels unwanted particles. This technology can make use of thermal infrared, radiometric, laser-induced fluorescence/spectrometry or colour properties to detect unwanted grains, and then eject these by mechanical or pneumatic means. Sensor-based sorting has not yet been tested on Berlin mineralized material.

13.3 Leaching

The extensive metallurgical test work that has been carried out on samples from drill core from the Project, and discussed in detail in the PEA (Tenova, 2013), focused on leaching of the commodities of potential value from the mineralized rock. Other areas of importance in optimizing the processing of mineralized material from Berlin include beneficiation and the downstream extraction of the value commodities from the PLS that would be generated from the leach circuit (**Error! Reference source not found.**).

Most of the metallurgical work carried out by U3O8 Corp. focused on leaching the value commodities from the mineralized material. After the standard acid and alkaline leach tests, which showed poor to moderate efficiency, focus shifted to acidic ferric sulphate leach that was first used commercially for the extraction of uranium and yttrium in the Elliot Lake mining camp in Ontario, Canada, in the 1960s and 1970s. Certain aspects of the acidic ferric sulphate leach process have been modified to optimize recoveries from the mineralized material from Berlin.

The most successful extraction method was found to be a two-step process that included an acidic ferric sulphate leach followed by a sulphuric acid wash of the residue. This method proved to be effective for the extraction of uranium, phosphate, vanadium, nickel, REEs, molybdenum, zinc, silver and manganese. Leach tests were conducted on raw mineralized material (Option B) and from mineralized material that had been beneficiated through pre-leach with acetic acid (Option A).

The acidic ferric sulphate leach does not show significant improvements in efficiency with grind size; a relatively standard 100µm grain size is adequate for excellent metal and phosphate extraction. The first step of the acidic ferric sulphate leach was done at a relatively low temperature of 65°C at atmospheric pressure.

Slightly higher rates of extraction were achieved with a dilute hydrochloric acid wash in the second step of the acidic ferric sulphate leach process relative to those from a sulphuric acid wash. However, to avoid downstream processing complications through the introduction of chlorine into the system, it was recommended that the sulphuric acid wash be used in the extraction of metals and phosphate from mineralized material from Berlin.

Uranium extraction from the acidic ferric sulphate leach followed by a dilute sulphuric acid wash ranged from 93%-98% with an average of 96% in a 24-hour leach time. Extraction rates for the elements of potential economic interest are shown in Table 13-1.

Table 13-1. Average leach extraction from the mineralized rock determined from metallurgical tests work on core samples from Berlin with element concentrations and estimated flow rates in the PLS resulting from the acidic ferric sulphate leach.

OPTION A – PLS Assay after Acidic Ferric Sulphate Leach					OPTION B – PLS calculated after Acidic Ferric Sulphate Leach		
Element	**Element in PLS (ppm)**	**Element Mass Flowrate in PLS (kg/h)**	**Element Mass Flowrate in PLS (tph)**	**% Leach Extract**	**Element Mass Flowrate in PLS (tph)**	**Element Mass Flowrate in PLS (kg/h)**	**Element in PLS (ppm)**
U	595	115,668	0.1157	98	0.1195	119,531	464
V	1,391	270,410	0.2704	73	0.2034	203,389	790
Mo	183	35,575	0.0356	51	0.0330	33,038	128
P	20,291	3,944,590	3.9446	100	3.9446	3,944,590	15,328
Ni	857	166,601	0.1666	60	0.1819	181,902	707
Zn	1,807	351,281	0.3513	98	0.4011	401,069	1,559
Mn*	146	28,305	0.0283	N/A*	0.0276	27,590	107
Y	195	37,908	0.0379	91	0.0403	40,301	157
Nd	44	8,554	0.0086	64	0.0062	6,226	24

* Manganese (Mn) was added during the processing of the mineralized material – it is not contained in the mineralized material in significant quantities. Therefore, its recovery in the PLS is so that it can be recycled.

13.4 Recovery of Value Commodities from the Pregnant Leach Solution

The potential merits of membrane technology as a means of optimizing the downstream processing of the PLS were highlighted by Mr. Van der Westhuysen, of Synexus (Pty) Ltd., at the time that the PEA was being finalized. The consultant's advice was to undertake a four-step investigation of membranes, each step increasing in complexity and precision as follows (Synexus, 2021, 2022):

- Step 1: Test the efficiency of membrane separation using a synthetic PLS that simulated the composition of the PLS derived from the multiple metallurgical leach tests performed on drill core from the Berlin Deposit (Table 13-2). By design, the concentration of uranium in the synthetic PLS was significantly lower compared to the PLS in Table 13-2 to comply with regulatory maxima imposed on the Synexus test facility. The first series of tests focused on identifying the type of membranes that are likely to be most efficient for the separation and concentration of the commodities contained in the Berlin Deposit. This work has been completed.

- Step 2: This involved testing the best performing membranes on a larger scale to determine overall separation performance and to provide the information for mass balance calculations to provide guidance on capex and opex. These estimates are designed simply to provide a justification as to whether the membrane system has the potential to reduce opex and capex. These tests are nearing completion at the Effective Date.

- Step 3: This is effectively a small-scale precursor to the larger-scale Step 4 test work described below   Step 3 would provide data appropriate for PEA-level studies and would position the Company to undertake an updated PEA. Step 3 would involve conducting a series of tests on drill core from mineralized intercepts from the Project with the aim of improving the process flow diagram and economics of the Project, as follows*:*
  - Evaluation of beneficiation methods including acetic acid pre-leach, flotation, and sensor-assisted sorting methods.
  - Conducting leach tests that aim to reproduce and improve the leach results obtained in the earlier test work described in the PEA (Tenova, 2013).
  - Conduct membrane separation tests using an actual PLS produced by the updated/ improved leach process.
  - Optimize the processing of the PLS derived from the leach tests to produce a suite of commodities that maximizes project economics. For example, determine the technical and economic feasibility to produce ferro-phosphate, as a commodity for LFP batteries, as opposed to the phosphoric acid contemplated in the PEA (Tenova, 2013).
- Step 4: Once the tests described above have been optimized, carry out the optimized process including beneficiation, leach and commodity recovery on a large sample of several tonnes of mineralized material from Berlin to provide data to a standard appropriate for a pre-feasibility study.

Initial results of Step 1 of the membrane tests demonstrated that separation is highly efficient at concentrating uranium, nickel, vanadium, rare earth elements, molybdenum and zinc from the synthetic PLS (Table 13-3). Test results indicate that a single-stage membrane process would concentrate these commodities into only 12% of the PLS for further processing while a two-stage membrane process would result in 18% of the PLS being processed further (Figure 13-2). This should result in a reduction in the size of the downstream processing plant by between 82% and 88%, implying that the PLS flow rate of approximately 180 cubic metres per hour (“m^3/h”) as designed in the PEA (Tenova, 2013), could be reduced to $22m^3/h$ to $32m^3/h$.

Table 13-3 shows the initial results of membrane separation tests (Step 1). Work aimed at improving the recovery of phosphoric acid from the 63%-70% achieved so far, to a target range of 80% to 90%, is nearing completion but results are not yet available at the Effective Date.

Results from Step 2 membrane testing are awaited at the Effective Date. Step 3 of the membrane test work is contingent on completion of, and positive results from, Step 2.

Table 13-2. Composition of the synthetic PLS used for the Step 1 membrane test work.

Species	Unit	Value
Free acid	mg/L	93,195
Ca	mg/L	587
Ce	mg/L	3.4
Dy	mg/L	10.7
Er	mg/L	8.6
Eu	mg/L	1.8
Fe	mg/L	4,323
Gd	mg/L	12.4
K	mg/L	5.1
La	mg/L	29.1
Li	mg/L	3.6
Mg	mg/L	655
Mn	mg/L	98
Mo	mg/L	124
Na	mg/L	454
Nd	mg/L	57.4
Ni	mg/L	543
Re	mg/L	0.8
Se	mg/L	38
Si	mg/L	21.4
Sm	mg/L	2
Sr	mg/L	15.2
U	mg/L	19.6
V	mg/L	726
Y	mg/L	184
Zn	mg/L	1,335

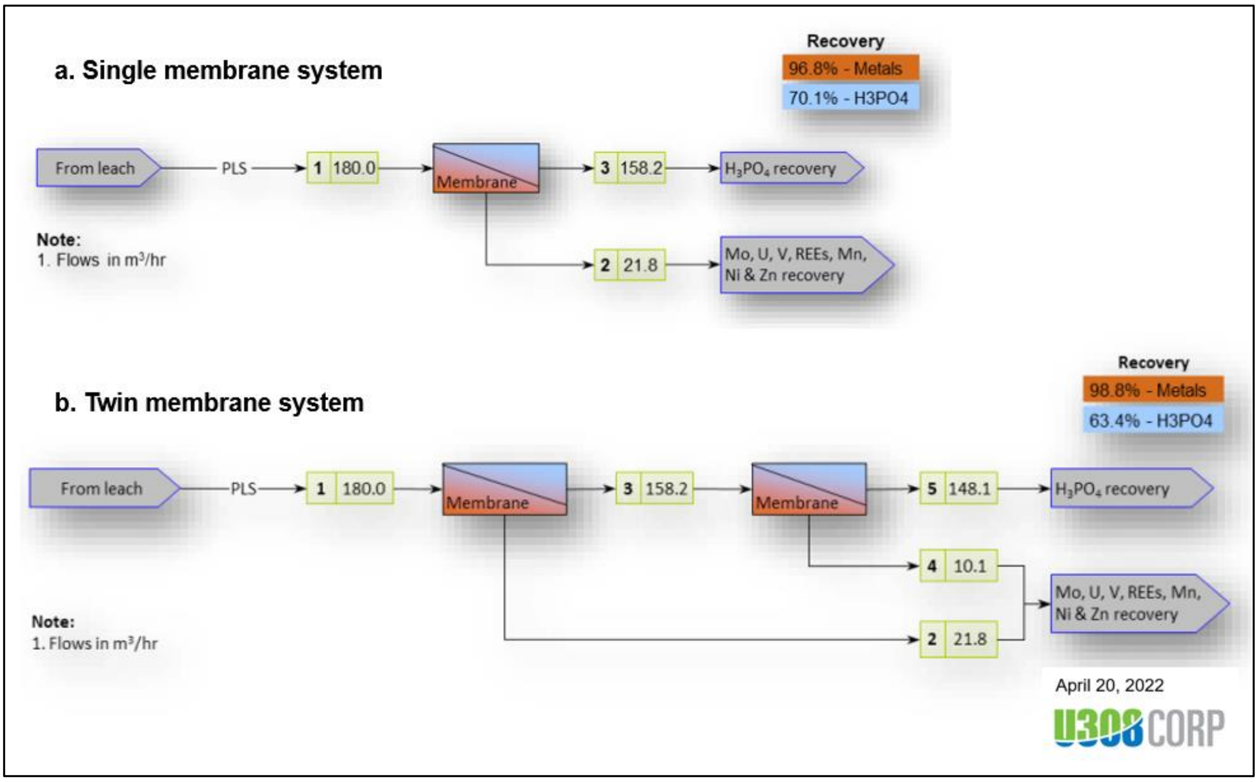

Figure 13-2. Flow diagram for the two membrane systems based on desktop studies that formed the basis for Step 2 test work on synthetic PLS.

Table 13-3. Initial results of Step 1 membrane test work showing the efficiency of metals and phosphate recovery from a synthetic PLS from the Berlin Deposit.

Commodity	Percentage Recovery	
	Single-stage Membrane	Two-stage Membrane
Uranium	97.1	98.9
Nickel	97.0	98.9
Vanadium	96.9	98.9
Phosphoric acid	70.1	63.4
Rare Earth Elements	97.3	99.1
Molybdenum	95.6	98.0
Zinc	96.5	98.8
Flow Rate Reduction (%)	87.9	82.3

13.5 Deleterious Elements

The Author is unaware of elements in the mineralized material in the Berlin Deposit that would be deleterious to the extraction of uranium and associated commodities.

13.6 Laboratories and Consultants

The metallurgical test work reported in the PEA (Tenova, 2013) was undertaken at the following laboratories:

- SGS OreTest in Perth, Western Australia. SGS OreTest was established as a metallurgical services company in 1993 as Lakefield OreTest Pty Limited and is now a subsidiary of the SGS Lakefield group, which has been offering mineral processing services to the mining industry since 1948.
- SGS Lakefield in Ontario, Canada, and predecessor companies, have been undertaking metallurgical test work for over 50 years and its Lakefield facility is ISO/IEC 17025 accredited.
- ANSTO was formed in 1987. It is a State agency within the portfolio of the Commonwealth Department of Innovation, Industry, Science and Research in New South Wales, Australia. ANSTO is responsible for delivering specialised advice, scientific services and products to government, industry, academia and other research organisations. It does so through the development of new knowledge, delivery of quality services and support for business opportunities.
- Flotation test work was undertaken at Optimet in South Australia.
- Membrane test work was performed by Synexus (Pty) Ltd. at its installations in Stellenbosch, South Africa.

Mr Johann van der Westhuysen, MEng, BEng, is Managing Director of Synexus (Pty) Ltd, a process engineering services company that specializes in membrane separation applications in hydrometallurgy. Mr. Van der Westhuysen is registered as a Professional Engineer (PrEng) (Chemical) with the Engineering Council of South Africa and as a Chartered Chemical Engineer (CEng) with the Institution of Chemical Engineers, Engineering Council of the United Kingdom.

All of the entities that have undertaken metallurgical studies on the Berlin Deposit are independent of U3O8 Corp.

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14 MINERAL RESOURCE ESTIMATES

Resource estimates undertaken on the Berlin Deposit are described in Section 6.

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15 MINERAL RESERVE ESTIMATES

No mineral reserve estimate has yet been undertaken on the Berlin Project.

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16 ADJACENT PROPERTIES

In 2012, U3O8 Corp. drilled 6,441m in 15 diamond drill holes along geological trend of the mineralized sedimentary unit to the north of the Property (Figure 16-1 and Table 16-1).

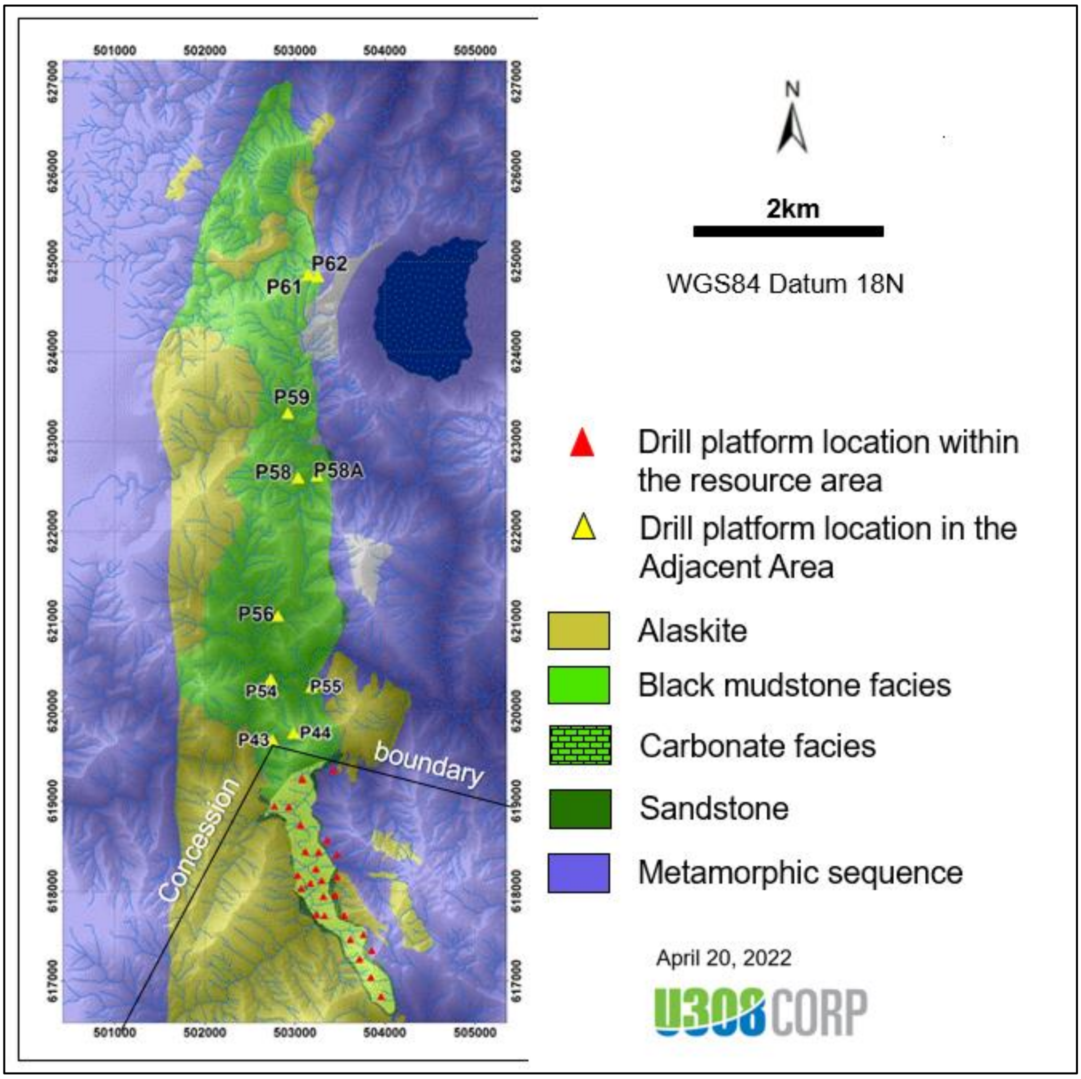

Figure 16-1. Map of the whole Berlin syncline showing the location of platforms from which the 2012 drill campaign was undertaken relative to the area in which the resource was estimated.

Since U3O8 Corp. has not paid the annual concession fees on the adjacent area, the concessions are no longer in good standing and negotiations are on-going to make the arrears payment to the Colombian Mining Authority. Due to the concessions not being in good standing, the Author relegated them to "adjacent areas". No guarantee can be provided at the Effective Date as to whether the negotiations will be concluded successfully.

Table 16-1. Header data for drill holes completed in the adjacent area.

Drill Hole #	Platform	Easting (m UTM)	Northing (m UTM)	Altitude (m)	Length (m)	Azimuth of Drill Hole (°)	Inclination of Drill Hole (°)
DDB-083	P54	502,717.2	620,353.3	694.5	496.2	0	90
DDB-084	P44	502,978.3	619,753.6	874.5	384.0	0	90
DDB-085	P44	502,978.3	619,753.6	874.5	379.5	74	55
DDB-086	P54	502,717.2	620,353.3	694.5	450.2	80	60
DDB-087	P44	502,978.3	619,753.6	874.5	376.1	254	70
DDB-088	P54	502,717.2	620,353.3	694.5	680.0	260	60
DDB-089	P43	502,725.3	619,690.8	762.3	370.0	0	90
DDB-090	P55	503,169.1	620,303.1	676.2	153.9	80	55
DDB-091	P55	503,169.1	620,303.1	676.2	202.7	260	80
DDB-092	P89	503,042.0	622,654.7	783.5	608.0	0	90
DDB-093	P56	502,837.8	621,051.3	705.4	736.5	0	90
DDB-094	P58	503,042.0	622,654.7	783.5	500.0	0	55
DDB-095	P59	502,977.3	623,457.4	784.1	700.0	0	90
DDB-096	P61	502,922.0	625,043.0	875.0	330.0	0	90
DDB-097	P62	502,444.7	625,856.7	967.0	111.3	0	90

As with the drilling in the Project area, multiple drill holes were collared on the same platform to minimize environmental impact in the adjacent area. Down-hole radiometric analysis was done with a Mount Sopris probe manufactured by Mount Sopris Instruments and calibrated at that company's Grand Junction, Colorado facilities. On completion of each bore hole, the probe was lowered to the bottom of the hole on a cable and the radioactivity was measured at 10cm intervals as the probe was winched up the hole. Data from the probe was downloaded at the field camp, analysed and stored in a database for comparison with measurements of radioactivity measured on the drill hole core. These combined data were used in the selection of sample intervals.

The friable and fractured nature of the mineralization in some drill holes resulted in poor core recovery and in those cases, equivalent uranium grades were estimated from down-hole radiometric data. Coffey Mining (2012) noted a close correlation between assay grade and uranium grade as estimated from the down-hole radiometric data.

The stratigraphy intersected in the adjacent area is closely comparable with the resource area on the Property. Geochemical uranium grades are well correlated with estimated uranium grades derived from the probe data. Geochemical grades from the drilling in the adjacent area are listed in Table 16-2.

Table 16-2. Assay results (at a 0.04% U_3O_8 cut-off grade) for intercepts from drill holes drilled in the adjacent area

	Bore Hole Info		Intercept (m)			Grade									
	Platform	Bore Hole Number	From	To	Estimated True Width	Uranium		Vanadium	Phosphate	Molybdenum	Rhenium	Rare Earths		Nickel	Zinc
												Neodymium	Yttrium		
						U_3O_8		V_2O_5	P_2O_5	Mo	Re	Nd_2O_3	Y_2O_3	Ni	Zn
						%	lb/t	%	%	ppm	ppm	ppm	ppm	%	ppm
NARROW-WIDTH ZONE	**P54**	**DDB-083**	464.0	464.4	0.2	0.162	3.56	0.61	10.4	1,120	17.3	144	650	0.73	5,440
	P44	**DDB-084**	308.4	308.7	0.2	0.014	0.30	0.04	1.6	67	0.6	34	109	0.06	401
		DDB-087	328.3	328.9	0.4	0.063	1.39	0.30	4.9	428	5.8	65	266	0.33	2,248
	P54	**DDB-088**	658.7	659.1	0.3	0.139	3.06	0.59	11.9	713	8.8	115	519	0.37	4,260
	P43	**DDB-089**	353.7	354.3	0.4	0.031	0.68	0.17	3.1	233	1.7	30	138	0.11	1,226
EAST-CENTRAL AREA	**P44**	**DDB-085**	318.1	322.3	3.4	0.091	2.00	0.41	6.6	600	8.0	84	387	0.35	3,022
	P54	**DDB-086**	414.9	415.8	0.9	0.083	1.82	0.39	6.3	579	8.7	84	361	0.37	3,026
	P55	**DDB-090**	129.9	130.9	1.0	0.138	3.03	0.57	8.8	767	12.0	179	605	0.55	5,268
		DDB-091	179.8	182.3	2.2	0.105	2.30	0.46	7.3	614	8.5	103	395	0.39	3,656
	P58	**DDB-092**	Did not reach target depth												
	P56	**DDB-093**	713.2	716.6	2.4	0.078	1.71	0.33	6.3	491	7.8	84	357	0.35	2,875
		Including	714.7	716.3	1.3	0.119	2.61	0.45	8.3	700	12.6	134	563	0.53	4,349
	P58A	**DDB-094**	417.1	423.2	5.1	0.123	2.71	0.53	10.0	725	9.8	132	579	0.50	4,612
	P59	**DDB-095**	Did not reach target depth												
	P61	**DDB-096**	Sedimetary sequence in which mineralisation occurs was faulted out												
	P62	**DDB-097**	62.6	63.5	0.9	0.064	1.41	0.74	13.5	18	0.004	211	724	0.00	34

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17 OTHER RELEVANT DATA AND INFORMATION

No other relevant data and information is known to the Author as of the Effective Dt=ate.

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18 INTERPRETATION AND CONCLUSIONS

- Uranium mineralization is stratabound and is tightly confined to a carbonate unit that lies between sandstones in the footwall and mudstones in the hanging wall. Grades of all metals of potential economic interest and phosphate drop off sharply into the Unit B carbonate footwall. Uranium is closely associated with Unit C in the carbonate sequence, and grades decrease rapidly through Unit D into the hanging wall. Rare earths, yttrium and neodymium, have a similar distribution to uranium. In contrast, vanadium, nickel, molybdenum, zinc, silver, and to some extent phosphate, extend further into the hanging wall Unit E.

- Textural relationships indicate a consistent paragenetic sequence that shows that mineralization occurred subsequent to deposition of the sedimentary host rock. Therefore, the deposit is classified as stratabound hydrothermal.

- The genetic model for mineralization at Berlin is that hydrothermal fluids generated by the adjacent alaskitic stocks carried uranium, REE, molybdenum and rhenium into permeable strata, and the sedimentary sequence sandwiched between the basement schists and overlying Cretaceous mudstone sequence represented a relatively permeable stratum. Heat from the intrusions resulted in the organic carbon-rich black shales passing through the oil window, leaving residual graphite and other overmature organic relics. It appears that this maturation of the organic carbon with heat from the stocks resulted in leaching of metals that are commonly enriched in black shales such as nickel, vanadium, zinc and silver. These fluids derived from the thermal maturation of the black shales migrated into the same permeable unit as those from the intrusive stocks. Apatite crystallized towards the middle of the paragenetic sequence along with REEs and other elements and uranium was reduced by the organic carbon.

- Exploration drilling and trenching shows that the mineralized unit is consistently mineralized over a strike distance of 3.5km and throughout a syncline that reaches a depth of 350m below surface. The mineralized layer is easily identifiable in drill core and varies between 0.8m and 8m true thickness, with an average of 3m.

- Extensive drilling, of 82 holes for 18,522m has been completed within the Project area. Although only 7% of the resource estimate by Coffey Mining (2012) is in the Indicated category, with the remainder being Inferred, future infill drilling is likely to demonstrate continuity of the mineralized layer, to the extent that the resource could be upgraded to Measured and Indicated efficiently.

- Check sampling provided assay data that is consistent with the values reported in the prior sampling that was part of the database on which the resource estimates were made (Coffey Mining, 2012 and Tenova, 2013). In fact, the check assays, particularly assay method ICM90A, yielded generally higher grades for a large suite of elements when compared with the assays in the database. These results suggest that the analytical procedure used routinely on the Project may be somewhat conservative. Results of the check sampling of elements of potential economic interest undertaken for this Report, together with results from the more extensive resampling and database checking undertaken for the resource estimate by Coffey Mining (2012) and Tenova (2013), confirm that the sampling method is appropriate to the style of mineralization and that the database has been reliably constructed and can be relied upon for this Technical Report.

- Extensive metallurgical test work has focused on leaching of the commodities of potential economic interest and was successful in defining a means of extracting these commodities from the mineralized material. Other areas of the process flow sheet that need additional work is beneficiation that aims to concentrate the value-commodities into as small a component of the mineralized material as possible, and on the extraction of these commodities from the PLS. Test work on the latter component is ongoing and work on beneficiation is recommended.

- Simplification of the process flow sheet is likely to be beneficial to the economics of the Project. This work is of a higher priority than infill drilling to increase the proportion of Measured and Indicated resources in the Deposit at this stage of the Project's development. Given the evident continuity of the mineralized horizon, infill drilling can be done with an expected high degree of confidence after the work on the process flow sheet has been completed, or at least is well advanced.

- The work required to investigate ways of simplifying the process flow sheet used in the PEA (Tenova, 2013) is broadly outlined as follows:

  - Beneficiation: limited test work was done on beneficiation of the crushed mineralized material prior to completion of the PEA. Pre-leach with acetic acid proved effective and generated positive economics with an IRR (of 17%) when modelled as Option A in the PEA (Tenova, 2013). Option B, in which there was no beneficiation, generated an estimated 19% IRR. The economics of the Project may benefit from additional beneficiation techniques such as sensor-based sorting, further flotation tests and finding ways of reducing the cost of acetic acid.

  - Leaching: acidic ferric sulphate leach provides an effective means of extracting some of the value-commodities from the mineralized material, especially uranium, phosphate and zinc. Enhancements to the leach process would aim to increase the extraction of nickel, vanadium, molybdenum and neodymium, among other elements. Another goal of enhancements to the leach process is a reduction in acid consumption, which is a significant operating cost as modelled in the PEA.

  - Downstream processing of the PLS is where most of the emphasis has been placed since completion of the PEA. The initial work on the suitability of membrane separation technology for recovering value-commodities from the Berlin PLS is encouraging. The planned work for completion of testing membrane efficiency on PLS from a bulk sample is designed to provide data to a standard appropriate for a pre-feasibility study.

- Given the high acid consumption of the process flow sheet as defined in the PEA, local sources of acetic and sulphuric acid are being investigated. Key raw materials for acetic acid production are methanol, from which acetic acid is generated through a carbonylation process, or plain sugars, from which acetic acid is generated through fermentation. Both materials can be produced from sugar cane, and since the Magdalena River valley is an agricultural belt, there may be room for production that is mutually beneficial to local farmers and the Project. Similarly, many gold mining operations in central Colombia have pyritic tailings that could potentially be used as a source of sulphur for sulphuric acid. If this source could be used to produce sulphuric acid for the Project at competitive prices, it would have the added environmental benefit of reducing the risk of acid drainage from tailings facilities associated with the gold mines.

- The local communities are open to continued work on the Project thanks, in large part, to the extensive environmental and social engagement work done in the prior exploration program undertaken by U3O8 Corp. During the site visit undertaken by the Author, it was evident that the Company's management team has a good rapport with the local community.

- Expenditures made on the Project in the last year have mainly focused on metallurgical processing including membrane test work and salaries related to the restart of operations in Colombia.

- C$252,905 of Approved Expenditure has been made on the Property in the last three years, exceeding the required minimum of C$100,000 (Table 18-1).

- This Technical Report recommends a Phase 1 work program of C$975,000, of which C$590,000 qualifies as Approved Expenditure (Table 19-1).

Table 18-1. Expenditure made on the Berlin Project in 2021 and to the Effective Date.

Expenditure on the Berlin Project (C$)			
Item		2021	2022 to Effective Date
Remuneration		$69,759	$69,760
	Contractors	$69,759	$69,760
	Consultants	$0	$0
G&A in Colombia		$0	$0
Exploration:		$51,620	$0
	Field work	$51,620	$0
	Geochemistry	$0	$0
	Geophysics	$0	$0
	Drilling	$0	$0
Metallurgy & flowsheet optimization		$93,889	$46,610
	Testing of beneficiation techniques	$0	$0
	Optimization of leach process	$0	$8,000
	Downstream processing - membrane test work - Steps 1 & 2	$93,889	$38,610
Environmental and local community engagement		$0	$60,786
Annual concession fees		$0	$0
Total		**$215,268**	**$177,156**
Total Approved Expenditure		**$145,509**	**$107,396**

- Risk associated with the exploration data and resource estimate is considered minimal. The principal risk in many deposits is typically associated with continuity of mineralization, but in the case of Berlin, mineralization demonstrates remarkable continuity within a specific sedimentary horizon. Risk to continuity of mineralization lies in areas where the horizon has been cut and removed by a fault on the east flank of the syncline, and also on the west where parts of the alaskitic batholith infringe upon the sedimentary sequence. The field work described in Section 9 specifically focused on defining the extent of these areas of removal of the sedimentary horizon, to define where drilling could be done to determine with a high degree of confidence, the extent of removal of the sedimentary unit. In terms of effect on the resource, the resource area was conservatively modelled to exclude areas in which the sedimentary layer may have been removed, so the associated risk is more relevant to resource expansion in those two specific areas described above.

- Since the risk of removal of the mineralized layer in these specific areas is outside of the resource area, the potential risk of impact on the resource area and economics of the Project are considered minimal.

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19 RECOMMENDATIONS

Optimization of the flow sheet to improve the economics of the Project is the key next step and should be prioritized over all other technical work. Since pre-feasibility studies are based on Measured and Indicated resources, and significant infill drilling is required to upgrade the current resource to that resource categorization, it is recommended that the next step should set the Project up for an enhanced PEA that incorporates the expected flowsheet optimization recommended below. The test work should be done to pre-feasibility study standards so that the results can be used for a pre-feasibility study when the required infill drilling is done. Infill drilling should not be done before the flowsheet has been optimized as recommended below.

Additional metallurgical work should be undertaken with the aim of improving the efficiency of the flowsheet that was used for the basis of the PEA (Tenova, 2013). The test work recommended for the completion of Phase 1 is budgeted at C$500,000 (Table 19-1) and comprises the following:

- Completion of Step 2 test work that aims to provide data on membrane system efficiency to the extent that the impact of these systems on capex and opex can be estimated to a confidence level appropriate for a PEA. Step 2 includes a component in which the feasibility of production of specialized products is investigated; for example, potential to produce ferro-phosphate, the cathode material of LFP batteries. Completion of Step to is budgeted at $90,000.
- Step 3 is budgeted at $410,000, and constitutes a small-scale precursor to processing of a bulk sample recommended for Step 4, and should include:
    - Beneficiation (budget C$50,000):
        - Test sensor-based sorting systems such as those that use radiometric, physiochemical or spectral characteristics to reject grains that have low concentrations of value commodities.
        - Additional flotation studies to more fully assess the effectiveness of the technology to eliminate waste particles or alternatively concentrate particles of value.
        - Test the cost-effectiveness of producing acetic acid from sugar cane.
    - Optimization of the leach process (budget C$110,000):
        - Studies to determine if there are ways of improving the efficiency of acidic ferric sulphate leach on high-value metals such as nickel, vanadium, molybdenum and neodymium (and other REEs).
        - Additional test work should focus on finding ways of reducing acid consumption.
    - Downstream processing of PLS including membrane tests on the actual PLS generated by the leach process (budget C$100,000). The relatively high values of selenium associated with the other value commodities should be investigated further. This is potentially a valuable co-product and its release to the environment should be minimized.
    - Testing of the recovery of saleable commodities.

- Community engagement initiatives should be initiated. Appropriate initiatives, that build on the Company's prior experience from the Project, should be carried out in parallel with the laboratory-based recommended work. The budget for the community-related work is C$30,000.
- The exploration work included in the budget (C$60,000) covers mainly the field work required to take the bulk sampling for the Phase 1 test work outlined below.
- The annual concession fee of C$65,000 is due to the Colombian government to keep the concessions in good standing.
- The in-country operation is small, requiring one fulltime co-ordinator who calls on specialist consultants to undertake specific work on the Project. The fulltime person is budgeted at C$120,000 and the various consultants at C$150,000 for 12 months. All of the technical metallurgical work is designed and implemented by specialized consultants using third party, independent laboratories that are certified to handle radioactive material.

Phase 2 test work, which is contingent on successful completion of, and acceptable results from, Phase 1, would include additional work on the production of acetic acid, a major cost item in the process flow sheet, and additional testing on recovery methods to refine the Step 3 test work described above. Step 4 test work would test the whole optimized process on a bulk sample of several tonnes of mineralized material from Berlin. The processing would include beneficiation, leaching and recovery of the commodities of interest and would provide well controlled estimates of opex and capex for use in a future pre-feasibility study The Phase 2 budget is C$980,000.

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Table 19-1. Tabulation of recommended budget for the Berlin Project.

Budget for the Berlin Project			
Item			**C$**
Phase 1			
Remuneration			$270,000
	Contractors		$120,000
	Consultants		$150,000
G&A in Colombia			$50,000
Exploration:			$60,000
	Field work		$50,000
	Geochemistry		$10,000
	Geophysics		$0
	Drilling		$0
Metallurgy:			$500,000
	Step 2: membrane testing		$90,000
	Step 3:		
		Testing of beneficiation techniques	$50,000
		Optimization of leach process	$110,000
		Downstream processing of the PLS	$100,000
		Testing of recovery methods	$150,000
Environmental and local community engagement			$30,000
Annual concession fees			$65,000
Phase 1: Total			**$975,000**
Phase 1: Approved Expenditure			**$590,000**
Phase 2			
	Testing of acetic acid manufacture		$50,000
	Further testing of recovery methods		$180,000
	Step 4: Processing of a bulk sample		$750,000
Phase 2: Total			**$980,000**
Total: Phases 1 & 2			**$1,955,000**

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21 SIGNATURE PAGE

This technical report was written by the Mr. Jean-Pol Pallier. The effective date of this technical report is April 25, 2022.

Reviewed by

Jean-Pol Pallier, BSc, MSc, EurGeol.

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional geological and environmental practices.

22 CERTIFICATE OF THE QUALIFIED PERSON

I am the author of the report entitled "*Technical Report on the Berlin Uranium – Battery Commodity Deposit, Colombia*" dated April 28, 2022, on the Berlin Deposit, located on a mineral concession to which U3O8 Corporation has title (the "Report"), I hereby state:

1. My name is Jean-Pol Pallier and I am an independent exploration geologist.
2. I reside at 02 rue de Treguier 22740, Lezardrieux, France.
3. I am a practising geologist registered with a EurGeol designation due to my registration with the European Federation of Geologists.
4. I graduated with a BSc in Geology from UBO Brest University in 1992, and with an MSc in geology from CESEV / ENSG Nancy University in 1995.
5. I have practiced my profession continuously between 1995 to 2004 and 2007 to present. Work that is relevant to the Berlin deposit includes my extensive experience in high-rainfall, tropical environments similar to the Berlin Project in Guyana for BRGM (1995-1996), French Guyana for ASARCO (1996-2001), IAMGOLD (2002-2004) and Golden Star Resources (2007-2008). My experience in uranium exploration includes exploration in Mongolia for Emeelt Mines in 2006 and for Aurania Resources Ltd. In Switzerland between 2009 and 2016.
6. I am independent of U3O8 Corp. in accordance the application of all tests defined in Section 1.5 of National Instrument 43-101 (Standards of Disclosure for Mineral Projects).
7. As per Exchange Policy requirement (Appendix 3F), I declare that I have had no prior involvement with the Berlin Project.
8. I am a "qualified person" as that term is defined in National Instrument 43-101 (Standards of Disclosure for Mineral Projects).
9. I visited the Berlin Project property and surrounding areas for 2 days on January 19 and 20, 2022. I have performed consulting services and reviewed files and data supplied by U3O8 Corporation between December 2021 to the date of this Report.
10. I contributed to and am responsible for all sections of the Report. I depended on a legal opinion of the status of the Property dated April 20, 2022.
11. As of the Effective Date of this Report, to the best of my knowledge, information and belief, the Report contains and refers to all material scientific and technical information that is required to be disclosed to make the Report not misleading.
12. I am independent of U3O8 Corp. and I do not hold or expect to hold securities of U3O8 Corp.

13. I have read the National Instrument and Form 43-101F1 (the “Form”) and the Report has been prepared in compliance with the Instrument and the Form.
14. I do not have, nor do I expect to receive, a direct or indirect interest in the Berlin Project as defined in this Report, and I do not beneficially own, directly or indirectly, any securities of U3O8 Corporation or any associate or affiliate of such company.

Dated at Lezardrieux, France, on April 28th, 2022.

Jean Pol Pallier

BSc (Geol), MSc (Geology), EurGeol.

23 CONSENT OF QUALIFIED PERSON

To: Securities Regulatory Authority of each of the following provinces:

British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador

I, J.P. Pallier, do hereby consent to the public filing of technical report entitled Technical Report on the Berlin Uranium – Battery Commodity Deposit, Colombia and dated April 25, 2022 (the "Technical Report") by U3O8 Corp. (the "Issuer"), with the TSX Venture Exchange under its applicable policies and forms in connection with the application by the Issuer for the listing of its common shares on Tier 2 of the TSX Venture Exchange and I acknowledge that the Technical Report will become part of the Issuer's public record.

Jean Pol Pallier
BSc (Geol), MSc (Geology), EurGeol.

April 28, 2022

24 APPENDIX A: ABBREVIATIONS

°C	Degrees Celsius
µm	Microns (0.001mm)
#	Mesh size
AAS	Atomic adsorption spectrometry
Ag	Silver
Al	Aluminium
amsl	Above mean sea level
Approved Expenditure	TSX Policy 1.1 states that approved expenditure means work expenditure resulting from, and relating to, geological and scientific surveys conducted on a mineral project or that enhanced the geoscientific database. Expenditure that is excluded from this category includes G&A, concession maintenance, public affairs, project acquisition, international flights and tax.
BTW	B thin-wall drill core diameter of 42mm
BVI	British Virgin Islands
C$	Canadian dollars
Ca	Calcium
Ce	Cerium (a rare earth element)
cm	Centimetre
Co	Cobalt
Cu	Copper
DEM	Digital elevation model
DDB	Diamond drill hole number prefix for U3O8 Corp.'s drilling at Berlin
Dy	Dysprosium (a rare earth element)
Er	Erbium (a rare earth element)
Eu	Europium (a rare earth element)
Effective Date	April 20, 2022
Fe	Iron
g	gram

G&A	General and Administrative
Gd	Gadolinium (a rare earth element)
g/L	Gram per litre
g/m^3	Grams per cubic metre
g/t	Grams per tonne
GPS	Global positioning system
GRS	Gamma ray spectrometer
H_3PO_4	Phosphoric acid
Ha	hectare
Ho	Holmium (a rare earth element)
HQ	Diamond drill core diameter of 63.5mm
hr	Hour
IAN	*Instituto de Asuntos Nucleares* (Institute for Nuclear Matters)
ICP-AES	Inductuvely coupled plasma atomic emission spectroscopy
ICP-MS	Inductuvely coupled plasma mass spectroscopy
IRR	Internal rate of return
ISO	International Standards Oraganization
IX	Ion exchange
K	Potassium
kg	Kilogram (1,000 grams)
km	Kilometre (1,000 metres)
km^2	square kilometres
La	Lanthanum (a rare earth element)
Lanthanide	A group of 15 chemically similar metallic elements (rare earths) as well as scandium and yttrium.
lb	Pound
LFP	Lithium ferro-phosphate
Lu	Lutetium (a rare earth element)

m	Metre
m^3/h	Cubic metres per hour
Ma	Million years
Mg	Magnesium
mL	millilitre (0.001 litres)
Mlb	Million pounds
mm	Millimetre
Mn	Manganese
Mo	Molybdenum
Moz	Million ounces
Mt	Million metric tonnes
Mtpa	Million metric tonnes per annum
Nb	Niobium
NCA	Nickel-cobalt-aluminium (lithium ion battery)
Nd	Neodymium (a rare earth element)
Ni	Nickel
NI	National Instrument
NMC	Nickel-Manganese-Cobalt (lithium ion battery)
NPV	Net present value
NPV_{10}	Net present value at a discount rate of 10%
NQ	Diamond drill core diameter of 47.6mm
NTW	N thin-wall core diameter of 57mm
P_2O_5	Diphosphorous pentoxide
P_{80}	80% os sample passing through sieve size
P	Phosphorous
PEA	Preliminary Economic Assessment
PLS	Pregnant leach solution
Pm	Promethium (a rare earth element)

ppb	Parts per billion
ppm	Parts per million
Pr	Praseodymium (a rare earth element)
QAQC	Quality assurance & quality control
QP	Qualified Person as defined by NI43-101
Rb	Rubidium
Re	Rhenium
REE	Rare earth element
Sc	Scandium ((a transition metal similar to the lanthanides and commonly classified as a rare earth element)
Se	Selenium
Si	Silica
Sm	Samarium (a rare earth element)
SMR	Small Modular Reactor
Sr	Strontium
SRTM	Shuttle radar thermatic mapper
SX	Solvent extraction
t	Metric tonne (1,000kg)
TB	U3O8 Corp. trench nomenclature prefix
Tb	Terbium (a rare earth element)
Th	Thorium
Tm	Thulium (a rare earth element)
tpa	Tonnes per annum
tph	Tonnes per hour
TSXV	TSX Venture Exchange
U	Uranium
UO_2	Uranium dioxide
U_3O_8	Tri-uranium octoxide (a principal constituent of yellowcake)

UTM	Universal Transverse Mecator (a geographic coordinate system measured in metres)
V	Vanadium
V_2O_5	Vanadium pentoxide
VRFB	Vanadium redox flow battery
WGS84	World geodetic system 1984
XRD	X-ray diffraction
XRF	X-ray fluorescence
Y	Yttrium (a transition metal similar to the lanthanides and commonly classified as a rare earth element)
Yb	Ytterbium (a rare earth element)