#### 1. What exactly is Glacial Bay Organic Clay and where does it come from?

#### "ENGINEERED BY MOTHER NATURE"

We supply an abundantly rare, mineral rich, hand harvested, sustainable Glacial Marine clay that is produced in an environmentally friendly manner. Our pristine Sea Silt's small particle size, large surface area, unique mineral characteristics and strong cation charge produces the highest grade of consistent, long lasting therapeutic clay products in the market.

Glacial Bay Marine Clay Inc. (GBOC) is a raw material supplier of ECOCERT COSMOS certified Glacial Marine Clay powder to the cosmetic industry. Our Company practices an environmentally friendly, sustainable process, which includes hand harvesting at low tide, solar drying in our 15,000 sq. ft. Greenhouses to a powdered form and then screened into an Ultra-fine powder with an average size of between 10-20 microns; the consistency of talcum powder or icing sugar.



Our unique and rare clay mineral deposits of glacial marine clay are unlike any other as they are situated beneath live and active glaciers and icefields, located in the Volcanic Coastal Mountain range of British Columbia, Canada.



Ancient Volcanic activity over 100 million years ago created Phyllosilicates or Sheet Silicates which included Micas, Chlorites, Talc, Serpentine and Clay Minerals

Clay minerals of our clay are composed mainly of Smectites, Vermiculites, Montmorillonites and Illites. Their chemical structure presents a 2:1 ratio of clay mineral layers allowing for the collection of binding of many minerals and micro-nutirents in its microbiome environment. The interlayers of such structure enhance a water retaining capacity with more elements and minerals and/or desirable agents inside by its swelling/shrinking process called plasticity, making clay become a reservoir of minerals and trace elements as well as other nutrients for our daily use.

Glacial run off carries vast deposits of these ultra-fine particles down the river systems to settle in estuaries at the base of the mountains, in an isolated inlet of the Pacific Ocean. Throughout the journey these clay particles are energized through hydrolysis creating a strong cation electrical charge that gives our magical glacial marine clay its powerful binding and natural healing properties.

Our glacial marine clay deposits are inter-tidal and submerged in pristine Pacific Ocean saltwater to become a fully balanced, mineral rich blend of clay. The clay "Sea Silt" deposits are refreshed with the rich marine micro-nutrients from marine phytoplankton daily, which has been proven to be extremely beneficial for skin and body care. Test results show that our clay has a neutral pH balance of between 5.8-7.2 which is desirable for many different applications.



The Clay in the spring glacial run-off turns the Ocean a turquoise blue



The Highest Peak and largest Glacier overlooks the Company's mineral claims

Glacial marine clay can only be a superior product if the region of erosion can supply large amounts of minerals and elements that are required for good health and well being. Glacial Bay Organic Clay's deposits have large amounts of these key ingredients making it one of the purest and most highly enriched clays available on the market today.

Our rare glacial marine clay deposits have been a hidden secret and only available to a select few who have mineral claims in the area. Professionals from around the world are mystified at the amazing healing and skin conditioning properties that our unique clay possesses.

Our Glacial Marine Clay is both nourishing and detoxifying when applied to the skin. This powerful combination produces skin product formulations that are highly effective, extremely stable with no odor and low heavy metal counts that are below international standards. As a cosmetic ingredient, it can be used for skin conditioning in facial, body and hair care products including foundations, BB creams, mineral makeup, lip gloss, facial masks, antiperspirants, toners, moisturizers, and cleansers.

As well as providing a great base to stabilize cosmetic formulations, our unique clays' mineral and micro-nutrient properties have been used in applications that may help mitigate many skin disorders such as Eczema, Psoriasis & Acne. The microbiome of our clay has many similar characteristics of skin microbiomes, in fact sharing over 60% of the major skin Phyla. Used for many centuries by the local First Nations, stories passed down by elders tell of the many healing qualities this clay was used for including cuts, burns, infections, contact dermatitis, sunburns, and reducing inflammation. There folklore confirms that "Not all Clays are created Equal" as they used to travel to the region where our mineral claims are for healing and meditation.

#### 2. How is it harvested? Is it sustainable?

Our company's policy is to be great environmental stewards of our resources, much like the First Nations who first used the area as their summer habitat. We harvest in a sustainable manner, that is friendly to the local environment while creating a carbon neutral footprint. As the clay is harvested from our own mineral claim deposits, we can control the processing of the clay from the initial harvest to the final sale in an economically sustainable way, thanks in many ways to mother nature.

Every season, as the glacial spring run off starts, 3-4 inches of this glacial clay is deposited annually in the Estuaries where are mineral claims are located. We set yearly harvest quotas in certain sections of our claims and rotate these claims over a five-year period, never harvesting in the same area twice. After a period of five years, 15-20 inches have been replenished, thus giving us one of few sustainable mineral based resources.

We harvest all of clay by hand, placing it into reusable burlap sacs, then packed 50 burlap sacs to a cubic meter tote, which is then transported to our greenhouse. We only harvest the top 12-18 inches to capture the clay with aerobic activity of the rich microbiome environment. We angle trench all the harvest holes to allow small fish or salmon fry to escape during changes in tidal action to protect the fish habitat.





Our clay is harvested in partnership with our local Indigenous First Nations as some of our proceeds go back to protect the grizzly bear habitat and fish hatcheries in our local area. The clay totes are transported back to our Processing Facility using transportation barges and trucking companies that are empty backhauling back to their original destination, to minimize our carbon footprint.



Unpacking burlap sacs Clumps are slowly reduced to a fine powder using our propriety process

Mother nature takes over again, and the clay is solar dried inside large 15,000 sq ft greenhouses to a moisture content of below 1%, before the clay reaches our screening plant where sand, debris and organic material are screened out. The resulting clay particle size is then screened to an average size of 10-20 microns depending upon customer's requests; (the size of talcum powder or icing sugar).







Organic material, sand and larger particles are all screened out to produce an Ultra-fine Clay

# 3. What kinds of short-term benefits does the clay have on our skin? What about long-term benefits?

Our clay shares about 60% of the Phyla of the human skin and has similar PH values to enhance the transfer of rich minerals and microbiome in our clay to enrich our skin. The strong cation charge also binds toxins withing the skin and removes them when the clay is washed off. The clay also increases capillary activity in the skin and face, allowing better circulation and removal of toxins while refreshing the skin's outer surface.

### Short-term benefits: through its physical and chemical properties,

- 1) cleaning & removing skin debris,
- 2) shining and whitening,
- 3) neutralizing and/or detoxificating skin oxidants,
- 4) desensitizing skin from allergens and enhancing skin innate immunity, and
- 5) normalizing acidic and mineral micro skin environment.
- 6) anti-inflammatory qualities to reduce swelling
- 7) removes oil and other bacteria from skin surfaces
- 8) provides trace minerals and other micro-nutrients to the skin surface

## Long-term benefits: by its microbiome and other micronutrients for a healthier skin,

- 1) compensating epidermal microbiome as a source of compository probiotics,
- 2) helping to restore epidermal microbiome through its prebiotic nutrients,
- 3) nurturing skin cells by its composed postbiotics and trace elements,
- 4) locking down skin pathogens in a dormant mode, and
- 5) balancing the skin metabolism in a sustainable well beings.

#### 4. Is it safe for all skin types? What kinds of skin concerns is the clay good for?

Our clay suits all skin types and is especially effective on oily skin. In practice, how our clay is formulated with other ingredients determines what the final product and application is most suited or manufactured for.

Our customers use our clay for various applications. They have told us how they use it in formulations to help treat Acne as it detoxifies skin, reduces bacteria in pores, and reduces inflammation & scarring.

We have customers that use it in combination with other ingredients to make the effects of Eczema, Rosacea, Shingles, Psoriasis, Hives, Contact Dermatitis, Rashes less severe, serious and painful.

Our First Nation people have used the clay for many generations for its powerful healing qualities to treat cuts, burns, infections, rashes, sunburns, reducing scars and to promote faster healing and reduce inflammation.

Clay based lotion has also been beneficial for sensitive skin and skin allergies too. And we are evaluating, a clay sunscreen that may intrinsically contribute up to 10 points of SPF for skin protection from sun irritation.

Clay soap is a convenient and popular product often used for a skin friendly sanitizing. Some of our Asian clients find clay-based shampoo makes their hair look shinier with less gray hairs.

# 5. What beauty/hair/skincare brands currently use Glacial Bay Organic Clay?

Following is a short list of some of our clients with links to their products

1. Goop - G.Tox Glacial Marine Clay Body Cleanser

https://goop.com/ca-en/goop-beauty-g-tox-glacial-marine-clay-body-cleanser/p/

2. **Man Mud** - glacial marine clay mud mask (designed for male market)

https://manmud.rocks/product/man-mud-6-ounces/

3. Okoka Cosmetiques- detox purifying facial mask - la d'tox noire

https://okokocosmetiques.com/products/la-boue-de-beaute

4. Cocoon Apathecary - Ancient Mud Facial Mask

https://cocoonapothecary.ca/products/ancient-mud-natural-facial-mud-mask

5. Captain Blankenship - Mermaid Dry Shampoo

https://captainblankenship.com/products/mermaid-dry-shampoo?\_pos=4&\_sid=bf627cd34&\_ss=r

6. **Zaza and Cruz** – Glacial Marine Detox Mask

https://zazaandcruz.com/products/glacial-mineral-detox-mask

7. O'Canada Soapworks - Canadian Glacier Soap

https://ocanadasoapworks.com/product/canadian-glacier-soap/

8. **Mudology** – Canadian Glacial Clay Wet Face Mask

https://mudology.com/collections/clay-botanical-face-masks/products/canadian-glacial-clay-wet-mask